



# AIDE MEMOIRE

## Rapid Assessment of MIQ

<b>Date:</b>	18 May 2021	<b>Priority:</b>	Medium
<b>Security classification:</b>	In Confidence	<b>Tracking number:</b>	2021-3489

<b>Information for Minister(s)</b>
Hon Chris Hipkins <b>Minister for COVID-19 Response</b>

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<b>The following departments/agencies have been consulted</b>
Ministry of Health

**Minister's office to complete:**

- |   |  |
|---|--|
| <input type="checkbox"/> Approved             | <input type="checkbox"/> Declined            |
| <input type="checkbox"/> Noted                | <input type="checkbox"/> Needs change        |
| <input type="checkbox"/> Seen                 | <input type="checkbox"/> Overtaken by Events |
| <input type="checkbox"/> See Minister's Notes | <input type="checkbox"/> Withdrawn           |

**Comments**

*I'd like to see a table summarising progress against each recommendation.*

*CH*



## AIDE MEMOIRE

<b>Date:</b>	3 May 2021	<b>Priority:</b>	Medium
<b>Security classification:</b>	In Confidence	<b>Tracking number:</b>	2021-3489

### Purpose

The purpose of this paper is to provide you with a copy of the Rapid Assessment of MIQ, detail MIQ's response, and proposed approach to the proactive release of the assessment.

Megan Main  
**Deputy Secretary**  
MIQ, MBIE

18/05/2021

### Background

1. Since July 2020, when MBIE assumed responsibility for MIQ operations, we have adopted a continuous improvement process in order to respond to the rapidly changing environment. Given that MIQ is part of the public health response to COVID-19, this is done in close collaboration with key partner agencies, such as the New Zealand Defence Force (NZDF).
2. In line with this approach, after six months of operation by MBIE, Chief Executive Carolyn Tremain commissioned a rapid assessment, conducted by Murray Jack and Katherine Corich. The assessment was commissioned to help identify practical recommendations and improvement opportunities. This review sits alongside a number of other reviews that have or will examine specific aspects of MIQ [Ref MIQ Weekly Report - Schedule of Reviews].
3. The scope of the assessment includes all MIQ operations, but excludes:
  - a. Policy and public health settings
  - b. Governance structures
  - c. Any evaluation of the effectiveness of the MIQ system as a health intervention
4. This six month assessment is the first of a series of rolling operational assessments, with the next one planned for August.
5. Previous communication with your office on the rapid assessment include Aide Memoire 2021-2198 – Terms of Reference, MIQ Weekly Report 11 March, and discussions with your office about the high level findings of the report in April.

6. The review has been useful in providing a system-wide view of areas for improvement, given that there are no obvious benchmarks or industry standards for MIQ operations that we can look to. The final report is attached as Annex One.

## **Rapid Assessment of MIQ – recommendations**

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7. The final report, received on 12 April 2021, highlights eight high priority recommendations (outlined below), amongst 82 recommendations in total. The recommendations were not unexpected, and MIQ welcomes the findings from the assessment as a means to help prioritise our areas of focus, and continue to improve our operations.
8. A current state 'stocktake' conducted since receiving the report has found that 91% of all the recommendations are either complete, or activities are well underway [Annex Two]. In some cases, the review identifies issues relevant to the time it was conducted. Given the pace of change in MIQ and our operating environment, a number of recommendations have been overtaken by events.
9. The recommendations focused on practical steps that have the potential to improve the efficiency of MIQ operations. A number of these recommendations require investment in technology, and will be considered on a cost-benefit basis. The findings of this report help to provide assurance that MIQ is focused on the right things, and is prioritising improvement while simultaneously delivering operations.

## **Response to the recommendations**

10. MBIE and the Ministry of Health (MoH) are well underway with work on to ensure the recommendations from the review are assessed and actioned as appropriate (noting that some have been overtaken by events). A joint response to the high priority recommendations will be provided as part of the material to accompany the proactive release of the report.
11. All of the eight high priority recommendations have work programmes aligned to them, or have already been completed. An action plan has been developed to track the implementation/closure of the further 74 recommendations. Outlined below is a summary of progress against each of the high level recommendations:
  - a. **Continue with the rapid roll-out of the National Planning Function to increase efficiency and eliminate duplication**

A review of MIQ's planning function was undertaken, and by 25 June 2021 MIQ will have fully transitioned to a national planning function with clarified roles and responsibilities and reduced duplication.
  - b. **Review the support function's planned and actual headcount**

This recommendation will be met through MIQ's report back on MIQ Appropriation/FTEs, to joint Ministers Covid-19 Response and Finance in May 2021.
  - c. **Strengthen systems and data integrity**

Several streams of work are underway to improve system and data integrity. A data ownership map will assist with the overall improvement in data integrity, particularly for records that are not already centralised. MIQ acknowledges the need for strong leadership in the data stream, and has appointed a General Manager - Data and Technology to lead this area.
  - d. **Formalise MIQ's information gathering powers in the COVID-19 Health System Response Act**

This recommendation has been overtaken by events. Crown Law has indicated that it is unnecessary to create new primary legislation due to suitable provisions already being

available under the Privacy Act. We will address this recommendation by continuing to pursue Memoranda of Understanding with government agencies to enable data sharing, as well as utilising the data ownership map to determine ownership of data, as well as data needs across operational functions.

e. **Strengthen IT infrastructure**

This recommendation relates to the standardisation of technology in use at the RIQCCs and MIQFs nationally. The Technology Standardisation Project has been completed with internet, print, and devices deployed. Storage of Standard Operating Procedures and a platform for cross agency collaboration has also been delivered. Further user training is underway and will flow into the records management work also underway.

f. **Strengthen iwi-Māori partnerships in all regions**

The assessment highlights that the speed of establishing MIQFs resulted in iwi relationships not being developed early enough in the process. This has been recognised, and work has been underway for some time to deepen relationships. MIQ has built partnerships with iwi in the regions, and has recently appointed a Director Māori to provide further leadership in this space. The appointment of five regional roles will help cement our partnerships into a business-as-usual approach, and the Te Arawhiti engagement guidelines and capability framework will be used to inform updates to Standard Operating Procedures for MIQ staff. A future-focused wananga is also planned to take place in Wellington in mid-June, and will include iwi participation.

g. **Work with the Ministry of Health and DHBs to remedy shortages in health resourcing**

Changes within the MIQ context are having time-limited impacts on the health workforce. These impacts have developed in the time since the assessment took place. MoH has provided an MIQF health workforce update to your office this week reflecting the current status of the workforce, and is in the process of completing a review of models of care across the five regions. Key recommendations from that review have been included in the paper submitted by MoH.

h. **Complete development of a plan to civilianise current NZDF roles**

MIQ's workforce strategy team is currently scoping the optimal resource sourcing strategy for MIQ. This includes a review of the security workforce numbers based on a site-level assessment of security needs. In addition, a review of NZDF national office support roles will be conducted in light of MBIE assuming some planning functions. A view of priority roles to transition from NZDF will be formed and it is likely that the MIF Manager role will be a priority. Further details will be available in June.

12. Officials are tracking all 82 recommendations and reporting on progress to MIQ leadership. Coordination of cross-agency recommendations will also be tracked by MIQ and overseen by the MIQ Chief Executives Assurance Group, chaired by MBIE.

## Next steps

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13. We recommend the proactive release of the Rapid Assessment, in full, on a date to be agreed with your Office. The proactive release would also include a joint response from MIQ and MoH further detailing the steps taken to address high priority recommendations, and any further plans in place. ✓ *ASAP* ✓
14. A full communications plan will be provided to your office ahead of the release, including:
- a) Key messages
  - b) The draft MIQ media release
  - c) MIQ's response to the key recommendations

d) Questions and answers

15. A copy of the report has been shared with members of the MIQ Chief Executive's Assurance Group, and we would ensure other stakeholders are informed in advance of the release. The proposed timeline is attached as Annex Three.
16. This is the first of a series of rolling rapid assessments of this type, that MBIE will undertake to ensure MIQ continually learns and adapts as we learn more about COVID-19 and managed isolation. MBIE intends to commission the next assessment in August 2021.

## **Annexes**

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Annex One: Rapid Assessment of MIQ - Final Report

Annex Two: Recommendation Assessment Rating

Annex Three: Stakeholder Consultation Timeline

## **Annex one: Rapid Assessment of MIQ - Final Report**





# Rapid Assessment of MIQ

## FINAL REPORT

Murray Jack and Katherine Corich

9 April 2021

VERSION/ DATE	Version 1.0 FINAL / 09 April 2021
DOCUMENT NAME	Rapid Assessment of MIQ
CONTACT	Murray Jack Katherine Corich



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# Executive Summary

## Introduction

Managed isolation for individuals entering New Zealand was implemented on 9 April 2020 as a key pillar of the Government's COVID-19 elimination strategy. The orders made under the COVID-19 Public Health Response Act 2020 resulted in almost all arrivals at the border (by air and sea) spending 14 days in a managed isolation or quarantine facility, with very few exceptions. Initially NZDF facilities were utilised and as demand from returning New Zealanders grew these were replaced with a progressive increase in hotel facilities. Today there are 32 facilities, of which 18 are in Auckland, three each in Hamilton and Rotorua, two in Wellington and six in Christchurch.

The managed isolation system was originally part of the emergency Covid-19 response, contracted by the Ministry of Health, but since July 2020 has been managed by the Ministry of Business, Innovation and Employment (MBIE) through a dedicated Managed Isolation and Quarantine (MIQ) unit. More than 3,700 staff work in MIQ; over 3,000 of these in the MIQFs.

After six months of operation by MBIE, the Chief Executive initiated this rapid assessment of MIQ operations by an external panel to help identify practical recommendations for improvement opportunities and lessons learned as MIQ looks to address the challenges and opportunities it faces. The assessment covers all MIQ operations but excludes policy and public health settings, and governance structures. It also excludes any evaluation of the effectiveness of the MIQ system as a health intervention.

As context for the assessment, it is acknowledged that the MIQ system was established under urgency, initially with only a few hours to stand up facilities before arrivals landed at the border. It has been an extraordinary collaborative effort on the part of all agencies and private sector partners.

The operations of the MIQ system have continued to evolve since its inception. This has been driven by a process of continual improvement, changes in response to incidents at the border or within the facilities and the adjustment of settings as more knowledge has been gained about the behaviour and transmission of the virus.

Continual evolution places a significant burden on MIQ staff and particularly those in the front-line at the border and in the managed isolation and quarantine facilities (MIQFs). Changes to policy settings ripple through to revision of standard operating procedures (SOPs), changes to business and operating processes, the need for training, communication to returnees and on-going supervision and compliance. Many of the changes also directly impact returnees.

The assessment report contains our conclusions, recommendations and lessons learned.

## Conclusions

Given the urgency with which the MIQ system was established and the need for it to operate from day one, it was inevitable that the organisation, operating model, processes, systems and technology to support its functioning would need to be built alongside scaling of day-to-day operations. Although the concept of managed isolation was contained within national and District Health Board (DHB) level pandemic plans, there were no design concepts or existing infrastructure to facilitate establishment of a national system of the scale required by the COVID-19 pandemic; everything had to be built from scratch. The need for speed meant that quick decisions were required on facilities, systems, and organisation structures. These decisions were made on a 'no regrets' basis, acknowledging the trade-off between speed and fitness for purpose.

The speed of establishment resulted in Iwi relationships not being developed early. This has been recognised and work is now underway to deepen relationships.

With policy settings changing regularly and at times overnight in response to new knowledge about the virus and changing risks, and the need to respond to incidents, the rapidly evolving environment absorbs significant time and resources.

This places stress on prioritising the building out of the infrastructure needed to support MIQ operations. Uncertainty over the duration the MIQ system and availability of funding (confirmed only in December 2020) also affects planning.

Although there is now a level of stability in business as usual operations, there is still a significant amount of on-going change, with parts of the operation under stress as a result of resourcing issues.

As a result of the 'building the plane as it is flying' approach to establishing MIQ and the extensive reliance on manual processes and spreadsheets, there are many opportunities for improved efficiency of operations. Within these, there are a small number of key areas that, if remedied, will have a significant impact on efficiency and enable on-going realisation of further efficiencies. There are also opportunities to reduce or eliminate current initiatives that will create space for more important activities.

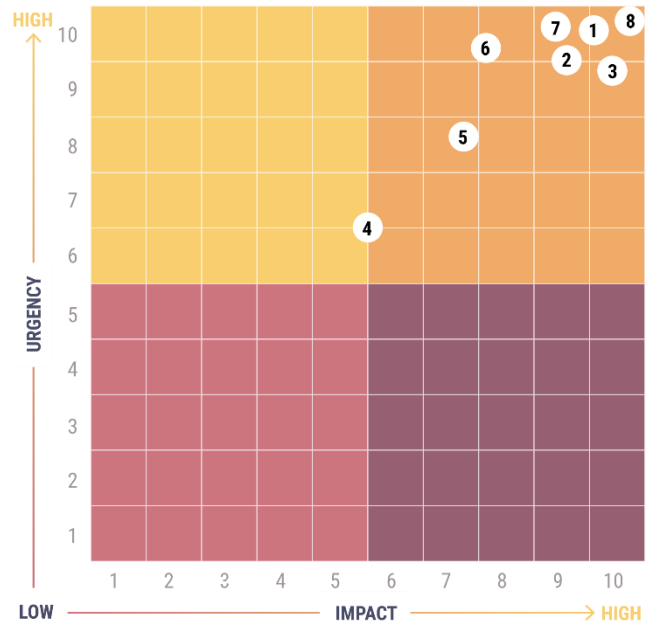
We utilised a framework to assess the current state efficiency, risk to operations and the relative urgency to address each area. The summary evaluation is set out in the table below.

MIQF EFFICIENCY ASSESSMENT FRAMEWORK (as at 9 March 2021)					
	Current State Efficiency Assessment		Risk (Operational Efficiency)		Priority
<b>Operating Model</b>	[Yellow]		[Yellow]		Important
<b>Inter-Agency Arrangements</b>	[Yellow]		[Green]		Important
<b>Core Processes</b>					
Returnee Communication and Information	[Yellow]		[Green]		Low Priority
Manage Allocation (Individuals)	[Red]		[Yellow]		Urgent
Manage Groups	[Yellow]		[Green]		Urgent
Manage Exemptions	[Yellow]		[Green]		Low Priority
Arrival and Check-in to MIQF	[Red]		[Yellow]		Important
Manage Transportation	[Red]		[Yellow]		Important
Manage Health Checks and Tests	[Green]		[Green]		Low Priority
Manage Exit from MIQF	[Red]		[Green]		Low Priority
Manage Invoicing, Waivers and Collections	[Red]		[Red]		Important
<b>Enablers</b>					
Policy	[Yellow]		[Green]		Important
IT and Systems	[Red]		[Red]		Urgent
Operating Policies and Procedures	[Green]		[Green]		Important
Workforce	[Yellow]		[Red]		Urgent
Contract Management	[Green]		[Green]		Low Priority
Capacity	[Yellow]		[Yellow]		Important
Information Sharing	[Red]		[Green]		Important
Communication	[Red]		[Yellow]		Important
Assurance	[Yellow]		[Yellow]		Important
<b>Treaty of Waitangi</b>	[Yellow]		[Yellow]		Urgent
	[Green]	Strong	[Green]	Low	Urgent < 30 Days
	[Yellow]	Adequate	[Yellow]	Medium	Important 30-60 Days
	[Red]	Weak	[Red]	High	Low Priority BAU Activity

# Recommendations

In forming recommendations, the focus is on practical steps that have the potential to significantly improve the efficiency of MIQ operations. A number of these will require investment in technology and resources. We note that MIQ funding is in place until 30 June 2022. However, in framing recommendations, we acknowledge that **the MIQ system will likely continue to operate in some form until at least 31 December 2022.** Decisions to invest in operational improvements should be made with this longer timeframe and the opportunity to leave fit-for-purpose legacy design and infrastructure in mind.

- 1** Strengthen systems and data integrity.
- 2** Strengthen IT Infrastructure.
- 3** Complete development of a plan to civilianize current NZDF roles.
- 4** Work with the Ministry of Health and DHBs to remedy shortages in health resourcing.
- 5** Review the support functions planned and actual headcount.
- 6** Continue rapid roll-out of National Planning Function to eliminate duplication.
- 7** Strengthen Iwi-Māori partnerships in all regions.
- 8** Formalise MIQ's information gathering powers in the COVID-19 Health System Response Act.



**KEY** ● Indicates can be part of future pandemic capability.

The high priority recommendations are included in this Executive Summary and are identified in bold in the document. Further detailed recommendations are included in the body of the report and listed in Appendix 1– Recommendations.

We recognise that MIQ is constantly introducing changes to procedures, systems and responsibilities, and has a portfolio of improvement initiatives in progress. As such we expect that some aspects of the recommendations may have been addressed (or will be) as our assessment was undertaken.

## High Priority

1. **Strengthen systems and data integrity.** Build out technology systems to support the automation of end-to-end processes from voucher application to MIQ exit, and to future proof MIQ. The solution should be compliant with MBIE's technology architecture and provide connectivity to other agencies.
2. **Strengthen IT infrastructure.** Technology in RIQCCs and MIQFs is being progressively upgraded. It is now urgent to ensure the upgrade of the network at the RIQCCs and MIQFs is completed to allow staff to have sufficient access to the systems and tools they need to do their job.
3. **Complete development of a plan to civilianise current NZDF roles.** Some NZDF capability and presence will be required for as long as the current scale of operations is needed. The plan should define the essential NZDF roles (likely to be an element of MIQF security, some key operational roles and senior leadership) and a phased transition of other roles to appropriately skilled MBIE employees. Target to commence a phased transition by 30 June 2021.
4. **Work with the MoH and DHBs to remedy shortages in health resourcing in Auckland.** Greater use of health assistants, and if necessary, options for training non-health staff to take swabs to release nursing staff for daily health checks and well-being support for returnees should be considered.
5. **Review the support function's planned and actual headcount** through the lens of the minimum requirement to support the MIQ system until at least 31 December 2022.
6. **Continue with the rapid roll-out of the National Planning Function to increase efficiency and eliminate duplication between national operations functions and the RIQCCs.** Ensure standard processes, protocols and tools are used across all planning activities, and strive to ensure that there is cultural alignment across teams. Continue national management of responses to Ministers, management of exemptions, group arrivals and emergency allocations. Create a single planning team located across HQ and the RIQCCs, following a design principle of locating resources as close as possible to operations.
7. **Strengthen Iwi-Māori partnerships in all regions.** Continue relationship building and ensure continued development of the partnership.
8. **Formalise MIQ's information gathering powers in the COVID-19 Health System Response Act** and complete and operationalise the Information Sharing MoUs.

MIQ should apply a cost/benefit framework based on an assumption of the probable length of time managed isolation facilities will be required, and what infrastructure including technology, systems, processes and procedures can usefully be carried forward and used when future pandemics require a managed isolation response.



## Lessons Learned



Many lessons have been learned to date and there will be more before the MIQ system is wound down. We have identified the key lessons we have observed as part of our assessment work below. As part of the winding down of the MIQ system, we recommend MIQ undertake a formal lessons learned process that will form part of the legacy and input into future pandemic response planning.

1. National and DHB level pandemic planning should include general specifications for a national managed isolation and quarantine system incorporating artefacts from the current system adapted after a lessons learned review, that would enable rapid establishment. These plans should be tested periodically.
2. Engagement with Iwi should occur as early as possible in the establishment of the MIQ system, including design of processes for managing exemptions, emergency allocations and pastoral care within facilities.
3. **The MIQ system should have its own dedicated industrial-strength IT network that enables all participating agencies and relevant private providers across the end-to-end process to connect on a BYOD basis. Dedicated IT support should also be planned.**
4. Application systems, whether off-the-shelf or developed, should be on a technical architecture that aligns with the parent agency. This enables efficient leveraging of support and development capability.
5. **Enabling legislation and regulations for managed isolation should provide information gathering powers for the responsible agency. Standard templates for specific Information Sharing MoUs should be maintained as part of the pandemic planning effort.**
6. MIQ policy resources should be embedded within the MoH pandemic response team.
7. Leverage private sector capability for specific skills such as outsourcing the booking and allocation process (for example bulk travel agents) so that air travel and room booking is coordinated with MIQ retaining control over room stock and emergency allocations.

# Background

## The MIQ Journey

### Establishment

Managed isolation for individuals entering New Zealand was implemented on 9 April 2020 as a key pillar of the Government's COVID-19 elimination strategy. The orders made under the COVID-19 Public Health Response Act 2020 resulted in arrivals at the border (by air and sea) spending 14 days in a managed isolation or quarantine facility, with very few exceptions. The purpose is to detect COVID-19 cases and prevent them from entering the community and transmitting the virus. Managed isolation is a public health intervention.

The bulk of the arrivals constitute returning New Zealand citizens and holders of valid visas. There is also limited international mobility supporting economic, social and cultural outcomes.

The managed isolation system comprises controls at the border, transportation, physical facilities to house returnees (managed isolation & quarantine facilities or MIQFs), a testing and health check regime, and controlled release into the community. As space in facilities is limited, and demand materially exceeds capacity, the system requires an allocation process.

Initially NZDF facilities were utilised and as demand from returning New Zealanders grew these were replaced with a progressive increase in hotel facilities. Today there are 32 facilities, of which 18 are in Auckland, three each in Hamilton and Rotorua, two in Wellington and six in Christchurch. One of the Auckland facilities is a quarantine facility holding only COVID-19 cases, including some of those from the community (when there is space). Four other facilities (across Wellington and Christchurch) have dedicated quarantine areas.

The managed isolation system was established rapidly, with the first facilities commissioned within six hours of the border closure.

The system was established and managed by the "All of Government" emergency response with MoH as the lead agency and NZDF co-ordinating the bulk of the tactical response. In July, responsibility was transferred to MBIE as the lead agency with the New Zealand Defence Force (NZDF) continuing to be deployed to MIQ operations. Within MBIE the system is managed by the specifically created Managed Isolation & Quarantine (MIQ) unit.

### Evolution

Continual evolution places a significant burden on MIQ staff and particularly those in the front line at the border and in the MIQFs. Changes to policy settings ripple through to revision of standard operating procedures, changes to business and operating processes, the need for training, communication to returnees and on-going supervision and compliance. Many of the changes also directly impact returnees.

Some individual changes directly impact the level of resources required (such as additional testing), but the cumulative impact of changes and the management of their implementation also has resource implications.

### Current State

Today the managed isolation system has a total of 6,199 contracted rooms with a planned availability of 4,500 after allowing for rooms unavailable due to the need for cleaning, maintenance, support of operations and emergency allocations, and contingency. From April to the end of January 2021 approximately 108,000 returnees have passed through managed isolation. Of these 756 (0.7%) have tested

positive for COVID-19. Around two-thirds of returnees are from what are considered high risk countries. There have been 13 recorded incidents of unauthorised departures of returnees since July 2020.

More than 3,700 staff work in MIQ, over 3,000 of these in the MIQFs. There have been five positive COVID-19 cases amongst the MIQF staff.

MIQ (MBIE) does not employ all of the staff. The largest staff group are the hotel workers and others are provided by NZDF, Aviation Security (AVSEC), New Zealand Police, participating DHBs, with smaller contributions from other agencies and the private sector.

Funding for MIQ through until 30 June 2022 was confirmed in December 2020, providing certainty for planning.

## Rapid Assessment Scope and Approach

After six months of operation in the current MIQ construct, the Chief Executive of MBIE initiated this rapid assessment of MIQ operations by an external panel to help identify opportunities for improvement as MIQ looks to address the challenges and opportunities it faces.

### Scope

The focus is on the efficiency of the operating model and roles (including cross-agency) as they relate to the management of facilities, front-line, support and management functions. The following areas are to be examined:

- efficiency of the operating model
- services prior to arrival
- services provided in the MIQFs
- staff welfare
- logistics arrangements
- administrative and contractual arrangements
- the operational framework, policies, protocols and procedures
- information sharing
- enforcement and compliance powers
- Te Tiriti ō Waitangi considerations
- IT systems and support.

Out of scope are:

- activities undertaken by the MoH, NZ Customs Service (Customs) and NZ Police, other than those inside MIQFs and MIQ liaison roles
- policy settings
- public health settings
- governance structures.

The assessment will include engagement with MBIE, AVSEC, NZDF, DHBs, MoH, Iwi stakeholders and private sector partners and providers.

This assessment does not evaluate the effectiveness of the MIQ system as a health intervention.

## **Approach**

- The field work for this rapid assessment was conducted over a four-week period. As such the level of detail the panel was able to review was limited. The assessment consisted of two phases: interviews and data gathering, and analysis and reporting.
- Interviews were conducted with 42 people (see Appendix 4 – Names and Titles of Interviewees) including MIQ managers and staff, and representatives from NZDF, AVSEC, MoH, NZ Police, and DHBs, representatives from airlines and hotels were also interviewed.
- Significant amounts of data on MIQ operations was provided, however, some of the operational data varied in quality.
- The draft report was produced on 11 March for review by the MIQ business owner.

## **Recommendations**

- Recommendations focus on the practical steps that have the potential to significantly improve the efficiency of MIQ operations. A number of these will require investment in technology and resources. In framing recommendations, it has been assumed that the MIQ system will continue to operate in some form until at least 31 December 2022.
- When reviewing recommendations for implementation, MIQ should apply a cost/benefit framework based on an assumption as to the probable length of time managed isolation facilities will be required and what infrastructure in the way of technology, systems, processes and procedures can usefully be carried forward and utilised when future pandemics require a managed isolation response.

# Current State Assessment

## Operating Model

### Current State

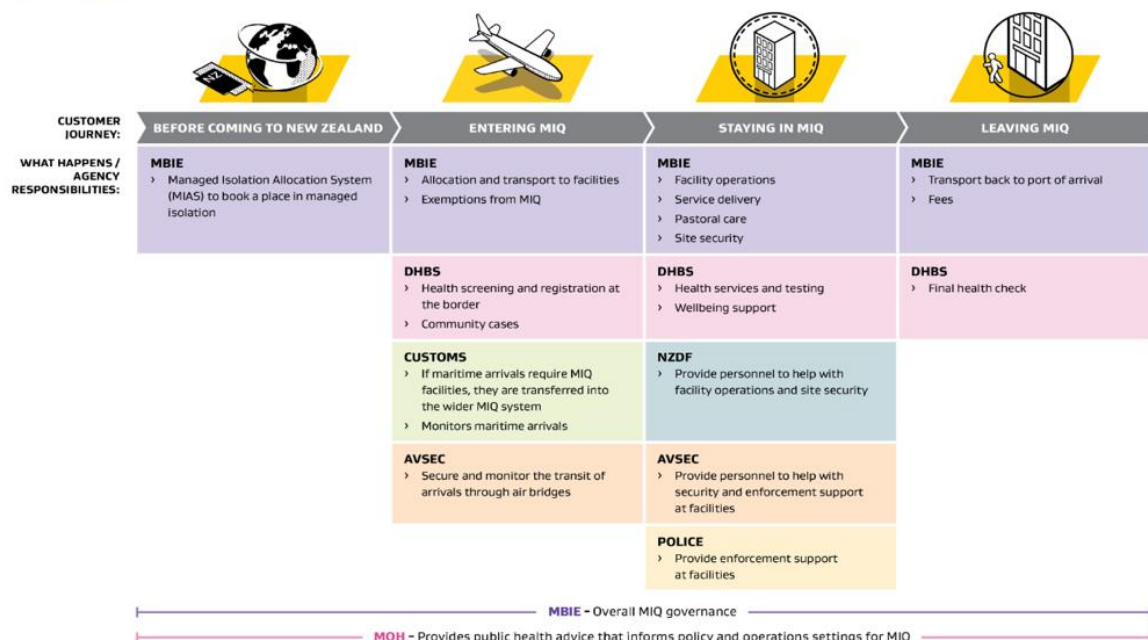
The MIQ Operating Model is unusual for the public sector as it brings together multiple agencies and the private sector within a single delivery structure, with MBIE as the responsible lead agency.

The key roles are:

- **MIQ(MBIE):** Overall responsibility to Ministers for MIQ outcomes, MIQ policy development, managing returnee allocation and transport, managing exemptions, MIQF operations and security, managing fees, quality and assurance processes, communications and media management, commercial negotiations, legal advice, etc.
- **NZDF:** Provides personnel to support national, regional and MIQF operations, and MIQF site security.
- **MoH:** Provides oversight of the MIQ health response and, public health policy settings for the border and MIQFs and specifications for DHB services to MIQFs.
- **DHBs:** Provide frontline health services for testing, health checks and well-being support.
- **Customs:** Provides advance passenger information and is separately responsible for arrivals at the maritime border.
- **AVSEC:** Provides personnel for MIQF site security.
- **NZ Police:** Provides enforcement support in MIQFs.
- **Hotels:** Provide the MIQF facilities and hotel services (food and beverage, laundry, cleaning etc).
- **Private security firms:** Provide security services in MIQFs.
- **Bus companies:** Provide transportation services for returnees.

A diagram of the MIQ Operating Model is on the following page.

## MIQ Operating Model



MIQ has three layers of structure:

- **Head Office:** Located in Wellington, it contains the senior leadership and National Operations functions, with supporting functions for Policy, Service Design and Engagement, Communications, Ministerial Support (including for numerous Official Information and Privacy Act requests), Service Quality and Assurance, Health Liaison and Support Services (legal, commercial, data, finance, etc). In accordance with the MBIE model, MIQ draws on broader MBIE corporate support.
- **Regional Isolation and Quarantine Command Centres (RIQCCs):** There are three RIQCCs located in Auckland, Rotorua (which combines the previous centres in Wellington and Hamilton) and Christchurch. Auckland is the largest centre. The RIQCCs manage the MIQFs in their region and contain planning, logistics and health functions along with the housing of representatives from other contributing agencies.
- **MIQFs:** These are the 32 facilities, one of which is a dedicated quarantine facility, and four of which have some quarantine areas. These contain MIQF leadership, security and health functions and manage the day-to-day operations with hotel management and staff.

NZDF personnel are fully embedded within the MIQ structure at each level. At MIQFs the primary role is MIQF leadership (with supporting roles) and security, within Head Office and the RIQCCs NZDF provides planning and logistics expertise. Leadership of MIQ is shared between NZDF (Head of MIQ Operations) and MBIE (the DCE).



## Assessment

The MIQ three layered structure is fit for purpose. There has been recent work to review the structure at the RIQCCs. The move to three regions is appropriate and will drive some efficiencies. The proposed structure for the RIQCCs will result in more consistency and should be implemented as soon as possible.

MIQ is trialling the use of permanent MBIE leadership at an Auckland MIQF. If adopted this would reduce inefficiencies that result from rotation and be beneficial for the operational relationship with hotel management and staff.

The section: Enablers - Workforce explores the issues that arise from the NZDF rotation process.

## Issues

1. The resourcing model together with evolving requirements has resulted in some of the larger MIQF facilities potentially being under-resourced. This will impact the ability to manage compliance by returnees and properly support MIQF staff.
2. There is duplication of planning and allocation activities between the Auckland RIQCC and the Head Office National Operations function. It is noted that around 98% of arrivals pass through Auckland and that most will be accommodated in Auckland. Approximately 80% of the planning and allocation process is carried out in the Auckland RIQCC. Efficiencies are available through the establishment of a National Planning function, which we understand is in progress.
3. MIQ has been established very quickly and has continued to evolve as lessons have been learned. Additionally, urgent day-to-day issues need to be dealt with as these crowd out initiatives that are needed to stabilise and strengthen operations and plan for future changes. It also makes prioritisation difficult.
4. Significant resources are allocated or planned for support functions such as Engagement and Service Design, ODCE, and Service Quality and Assurance (total 288 planned or 65% of total MIQ head office planned headcount).

## Recommendations

1. **Continue with the rapid roll-out of the National Planning Function to increase efficiency and eliminate duplication between national operations functions and the RIQCCs. Ensure standard processes, protocols and tools are used across all planning activities, and strive to ensure that there is cultural alignment across teams. Continue national management of responses to Ministers, management of exemptions, group arrivals and emergency allocations. Create a single planning team located across HQ and the RIQCCs.**
2. **Review the support function's planned and actual headcount through the lens of the minimum requirement to support the MIQ system until at least 31 December 2022.**
3. Implement the permanent MBIE MIQF leadership structure being trialled in Auckland across all MIQFs.
4. Review resourcing levels for MIQFs and if needed reallocate resources from smaller MIQFs to larger ones and/or augment staffing for larger MIQFs.
5. Once recruited, push day-to-day operational issue management down to level three in the organisation structure to enable the leadership team the space to focus on prioritisation, risk management, future planning and performance monitoring of the MIQ operation.

# Inter-Agency Arrangements

## Current State

MIQ system construct brings together multiple agencies to deliver the required outcomes. This requires roles, responsibilities and performance expectations to be clearly defined along with clear paths for escalation of issues and mechanisms for their resolution.

There is an over-arching Memorandum of Understanding (agreed in December 2020) in place with the MoH, NZDF, AVSEC, NZ Police and NZ Customs. Whilst this agreement does not create any legal rights or obligations, it does set out the responsibilities of each agency. Areas such as health, safety and well-being, Infection Prevention and Control (IPC), quality and assurance, and funding are well covered. Information sharing is acknowledged, but the details left for further clarification through information sharing agreements.

DHBs are not included in the MoU as their responsibilities in support of the COVID-19 health response are covered by service specifications set by the MoH. The detailed support requirements are contained in the MIQF Operations Framework and include health, well-being and psychological support for returnees, IPC and provision of health advice in support of exemptions, in addition to border screening, testing and health checks.

Arrangements with private sector providers are managed through the relevant contracts.

## Assessment

In most instances the inter-agency arrangements are working well and are evidenced by the speed with which MIQF facilities and processes were able to be established. The embedding of NZDF leadership and resources through the MIQ structure results in a very close operational working relationship.

DHB staff are embedded within RIQCCs and the MIQF facilities.

The working relationship with the MoH is more arm's length and there are inherent tensions by dint of being separate agencies that impact efficiency. The MoU does not clearly identify where policy responsibilities lie between MIQ and the Ministry.

## Issues

1. Frustrations are evident on both sides of the MIQ/MoH working relationship. MoH is not involved in day-to-day MIQ operations but becomes heavily involved when issues arise. These issues quickly shift from MIQ to MoH/Public Health, especially when there has been a positive community case. Existing mechanisms (for example senior Ministry representation on the MIQ leadership team and the MIQ Risk, Quality and Assurance Advisory Group, and co-located MoH liaison officers) do not seem to be effective in resolving tensions. Work is in progress to clarify responsibilities in these situations.
2. There is no shared work programme for drafting policy, which can result in a lack of clarity about policy responsibilities between MIQ and the MoH. MIQ system and MIQF operating procedure policies sit with MIQ. IPC, returnee health management and alert level 4 settings policy rests with the MoH, reflecting the nature of the managed isolation system as a health intervention. As MIQ operations are directly affected by these policy decisions, there is a need for effective consultation and feedback as part of the policy development process, particularly regarding the ability and timeframes to implement policy changes. In some cases, policy will require a collaborative effort.

3. In response to MIQ issues the MoH form Incident Management Teams and people in both organisations swarm the issues. The 'running to a problem' is a human phenomenon but does impact efficiency and effectiveness. Recently a joint MOH/MIQ technical advisory group was formed to deal with ventilation concerns resulting from the investigations at the Pullman. A permanent version of this group, the MIQ-TAG is being stood up.
4. The nature of the relationship between the MoH and DHBs complicates matters as DHBs are operationally independent of the Ministry. This can make it challenging to get adequate resources and consistency of service delivery across MIQFs. Consistency is important for compliance with the operations framework.
5. The length of time it has taken to finalise the MoU means that for several months the MIQ system operated on a general understanding of roles and responsibilities informed by response to day-to-day issues.

## **Recommendations**

1. Capture with the MoH the scope of the policy function within MIQ, acknowledging the MoH lead role relating to certain policy settings for the managed isolation system such as IPC, and the need for effective consultation with MIQ.
2. Exchange MIQ and MoH forward policy programmes and develop an agreed joint policy work programme with the MoH that identifies for each initiative which agency leads and which is consulted. Establish joint teams on policies that require extensive collaboration.
3. Establish single MIQ/MoH Incident Management Teams for issues emanating from the MIQ system, with senior representation from both agencies. The MIQ-TAG team referred to in Issue 3 above is a proven model.
4. Focus the established MIQ, MoH and DHBs oversight group on working to ensure DHB resourcing and service consistency issues are progressed.

# Information and Data Sharing

## Current State

The MIQ system requires the collection of personal information for safe and effective operations, for example to facilitate and validate arrivals at the border and to invoice and collect fees. It also requires access to information held by others, for example testing and vaccination results. Each agency involved in MIQ collects information specifically for its own purposes. The access to an individual's information is governed by the Privacy Act 2020, including Codes made under the Act, such as the Information Privacy Code 2020. The preferred mechanism for accessing information is obtaining positive consent from the individual.

It is not feasible for MIQ to foresee all the information that will be required as MIQ is subject to fast changing policy and operational requirements, so information sharing between agencies becomes an enabler of operations.

MIQ is in the process of completing information sharing MoUs with the MoH and Immigration New Zealand and has a completed the MoU with Customs.

## Assessment

### Agencies and Repositories

The data and core information relating to returnees and staff in the MIQ combined workforce are held in different ways. The majority are within government data sets and reside in the core systems of the delivery agencies: MBIE, MoH, Immigration, Border Agencies, NZDF, NZ Police, other Crown agencies (AVSEC, DHBs) and Airlines. Data relating to the private sector workforce is held in each company's respective IT system. There is also a large volume of data that is currently stored in less secure formats, across different delivery partners within the MIQ ecosystem.

### Information Access and Sharing

The orders establishing MIQ do not provide for any information gathering powers, unlike legislation that typically establishes agencies. Agencies have different views on the legal basis for sharing information in the context of the pandemic and negotiate individual agreements. This process can take six months or more and can be complicated.

The key information areas that are impacted are identity validation, visa status, contact information for fees invoicing and collection, and testing and vaccination.

### Data Governance

Data governance practices vary across the network. Data protection is highest in head office locations where data security and systems are secure, and the IT network has robust levels of data protection. Entities which have a role in policy setting for data governance include the DPMC, Office of the Privacy Commissioner and Crown Law. The Ombudsman may perform an oversight role in specific reviews or cases.

MIQ is in the process of establishing improved data protocols to ensure more rigorous data protections across the system.

## Issues

1. There is no agreed framework for the practical sharing of data that is required in a pandemic.

2. Positive consent for using personal information for wider MIQ processes is not currently sought from returnees or other travellers.
3. Because of rapid establishment of the response, each agency established data collection for its own purposes and storage in its own systems without reference to other agencies. When data needs to be shared between agencies serving MIQ, the negotiation process is usually long-winded and complicated. It was noted that this process could be completed at speed if greater clarity is provided on the purpose for which information is being sought. The constraints on information sharing and lack of a central unified view of data have impeded the efficiency of MIQ operations. The need for data for operational purposes as well as for urgent requests for data and reports from Ministers and other stakeholders have resulted in workarounds and extensive manual processing using spreadsheets and other uncontrolled sources for data.
4. Workarounds and extensive manual processing present data security vulnerabilities and a level of operational, legislative and reputational risk.

## **Recommendations**

1. **Formalise MIQ's information gathering powers in the COVID-19 Health System Response Act and complete and operationalise the Information Sharing MoUs.**
2. Develop a Data Ownership Map of all key data, clearly identifying data elements which require special or unique protections. This will enable all partners in the ecosystem to share a common view of data for reporting purposes. It will also enable the development of a comprehensive data sharing protocol to replace the individual data sharing agreements which need to be drawn up every time an individual data element needs to be shared. Note that this would need to be formalised in an Approved Information Sharing Agreement (AISA), approved by the Privacy Commissioner.
3. Develop the Data Sharing Protocol, to provide an over-arching view of all the data elements that are required for efficient running of MIQ operations.
4. Establish and implement a Common/Shared Data Model policy.
5. Obtain positive consent from returnees who supply personal information. This would be for nominated information to be used to streamline their arrival and stay in MIQ and protect their well-being.

# Capacity Management

## Current State

There are 6,199 contracted rooms across all 32 facilities. After rooms are set aside for quarantine, deportees, MIQF staff, maritime, aircrew, cleaning and contingency, there is available capacity of 4,500 rooms.

Occupancy averages between around 72% of the total rooms, and around 97% of available capacity.

Contingency is driven by the need to accommodate any overflow, emergency allocations and the potential loss of a facility or part of a facility. Approximately 400 rooms are set aside for contingency.

## Issues

1. There is little opportunity to increase capacity other than taking more risk by way of reducing contingency. The experience of having to take the Pullman off-line demonstrates the challenges of taking more risk.
2. We understand that the changes being requested to ventilation systems as a result of the Pullman investigation could result in significant capacity reductions in some facilities.
3. Similarly, the potential introduction of cohorting has the potential to reduce capacity by 20-30%. This would have a material impact on returnee flow.

## Recommendations

1. Review the requirement for cohorting. Unless recommended by the MoH as an infection prevention control, cohorting should not be proceeded with.
2. Consider more sophisticated modelling that could enable higher capacity utilisation.



# Core Processes

## Returnee Communication and Information

### Current State

People wanting to return to New Zealand typically start the process by going onto the Managed Isolation and Quarantine website. From here they are directed to a page where they can learn about MIQ or go to the online portal for securing a voucher. There are several email addresses which returnees can use to direct specific enquiries to MIQ staff. Basic workflow helps MIQ contact centre staff manage customer queries. Advanced workflow will improve the turn-around; this will be available with the introduction of the Customer Hub.

A Welcome Pack offered in several languages provides key information that a returnee needs to know prior to spending 14 days in managed isolation.

### Assessment

There is a need to improve upfront engagement with returnees who have not been successful in securing a voucher for managed isolation in the timeframe in which they intend to travel. This will have the twofold benefit of reducing 'noise' in MIQ in the form of repeat requests for voucher assistance, and in enabling New Zealanders who need to travel to have a fair chance at securing a place in managed isolation. Similarly, there are currently no proactive communications with returnees who had been successful in securing a voucher, then lost it suddenly because of a flight being cancelled out of the system. These vouchers are returned to the 'pool'.

### Issues

1. Communications with returnees are satisfactory for all straightforward cases.
2. Where special requests have been made for exemptions from managed isolation, exceptions, fee queries or waivers, and complaints have been received, there can be delays in responses during heavy workload periods. This has been improving.
3. Communications with returnees who are unsuccessful in securing a voucher in a timeframe compatible with their life needs are not ideal.

### Recommendations

1. Ensure that waiver, exemptions and restrictions communications are framed with the appropriate legal basis on which decisions have been made.
2. Continue to communicate with returnees through their journey and during their stay in a MIQF, via the channel that will be established by improving the system. See the recommendations in the section: Enablers -Technology Operational Systems.
3. For communications during a returnee's stay in a MIQF, a recommendation to improve broadcast communications within each MIQF is covered in the section: Core Processes - Services in Managed Isolation Facilities (MIQFs).

## **Manage Allocation – Individuals**

### **Current State**

Once an individual secures a voucher, they have 48 hours to confirm flight details in order to hold the voucher. If all goes smoothly, they will depart for NZ on their booked flight and enter the allocations process. Allocations is the process of matching inbound returnees to a room in the network. The allocations process is currently manual, as all matching of vouchers to rooms takes place outside of the system. This is highly inefficient and results in extensive re-work.

### **Issues**

1. The current system does not fully authenticate an individual at the point of entry in the system. When the Customer Hub is launched this will capture approximately 10% of returnees; being the ones who come via the Exceptions pathways.
2. An allocations process is normally a simple end-to-end flow. It has been over-complicated by the introduction of many manual workarounds, with data being moved between spreadsheets to make up for a shortfall in automation.
3. As the allocations processes are manual, they are subject to a high level of operator error as data is moved via cut and paste from one spreadsheet to another. Over 50 different non-consistent spreadsheets were identified in a December study. An improvement project is actioning these.
4. There is a disconnect in the process from allocating space in a MIQF to the stage of the returnee having checked into a room. MIQ does not allocate returnees to specific rooms - this is done by the staff at the MIQF on arrival, and returnees may not even end up in the facility to which they were originally allocated by MIQ, and those that do use a variety of formats depending on their internal systems. This has downstream effects for processes such as invoicing.
5. There is a no robust end-to-end process defined for an optimum future state Allocations process.

### **Recommendations**

1. Create a unified 'intelligent' front-end portal which enables authentication/verification of all entrants into the hub. This is linked to the Customer Hub recommendation below.
2. Customer Hub – ensure that all customers are fully integrated within the Customer Hub for the duration of the end-to-end process (customer journey).
3. Establish a tightly managed technology project to progress the recommendations above, capture the future state end-to-end process, and define use cases for all required scenarios.
4. As an interim solution, immediately simplify this process by basic automation of the data feeds out of MIAS and into allocations spreadsheets.
5. Review the voucher application forms and process to ensure positive consent is obtained from returnees for accessing and sharing personal information for the purposes of managing their end-to-end involvement with MIQ and contact tracing.

## **Manage Groups**

### **Current State**

The process for group allocations is currently manual. A bulk number of vouchers are held in MIAS and all scheduling, planning and communications for groups occurs outside of this system.

Groups are those groups that the Group of Ministers direct are to be managed collectively outside of MIAS and have included recognised seasonal employees (RSEs), some fishing crews, certain sports teams and refugees.

### **Assessment**

Each group requires extensive planning due to their specific needs and requirements, for example sports teams need to continue physical fitness and training. The process has recently been refined and the team resourced to full strength and moved into the National Planning team.

As noted in the section: Enablers - Technology Operational Systems, there is a need to use technology more effectively to strengthen planning and enable scenario modelling for groups.

### **Issues**

1. Groups can have specific needs unique to their group and, if there is little planning time, these may not be known until after arrival in NZ.
2. Groups can be a drain on capacity and efficiency as they often require extra space and services.
3. Each arriving group presents bespoke issues and careful pre planning to meet these needs is required. This is currently a manual process.
4. There is currently no robust way in which to prioritise groups.

### **Recommendations**

1. All the recommendations relating to technology improvements noted in the previous section on individual allocations are relevant for groups, with some additional functionality requirements.
2. Implement a Group Portal that enables two-way tracked dialogue with groups during the planning activities which can take several months. Data and insights from these planning activities will help MIQ to improve service and operations for future groups. Gather better insights into the broader needs of the travelling group such as cultural, training, dietary, medical, mental health, and mobility needs.
3. Design and map the optimum groups allocations process. This will help to inform the technology need.

## Planning and Scheduling

### Current State

Planning and scheduling require a careful balance of demand and supply:

- **Demand**  
Comes from New Zealanders who have been living abroad or recently left NZ, permanent residents and others with visas that entitle them to enter New Zealand while the border is otherwise closed, such as approved sports teams, refugees, and workforce groups such as RSEs, fishing crews, film industry, and students.
- **Supply**  
The critical supply constraint is the number of MIF rooms available at any given time. Secondary supply constraints include whether there is a scheduled flight available for a person to book a flight on the day for which they hold a voucher.

Planning and scheduling are currently labour intensive and highly manual processes, with layers of complexity and extensive manual work-arounds in place to create a finely tuned operation in the absence of planning technology. Given the complex and ever-changing inputs with which the planners deal, MIQ has achieved an admirable capability. This has been due to the total commitment of the people who have been working in these areas since the launch of MIQ. A recently appointed team is focussing on continuous improvements.

### Planning

Planning is required for the management of, amongst other matters:

- inbound arrivals by Air, and where they need to go (which MIF and which city)
- inbound arrivals by Sea, and where they need to go (which MIF and which city)
- matching individuals and families to rooms (also referred to as Vouchers and Allocations)
- transport (air charter and coach) to MIQFs
- what happens to their baggage (Customs clearance, check through to next destination)
- temporary or transit arrivals (Aircrew or transit passengers).

In MIQFs, planning is also required to ensure rigorous application of IPC, safe separations between residents and/or arrivals and departures, health checks, movement of people within the MIQF, transport for exercise and cleaning of rooms following a returnee's departure from the MIQF.

Scheduling involves coordinating flights, flight arrivals (returnee arrivals) and ground transfers.

Planning and scheduling are highly reactive at the A-RIQ. Although MIQ only knows final confirmed inbound passenger numbers when they receive the flight data from the airlines, the wealth of information provided by MIAS could be utilised to plan more proactively.

### Assessment

Planning and scheduling require careful balancing to match demand and supply, against a fast moving and dynamic pandemic backdrop, where anything and everything can change in a heartbeat. Getting this level of planning and scheduling right to ensure optimum efficiency requires sophisticated logistics planning, supply chain expertise and a level of automated technology.

The economic and regulatory constraints under which global airlines are operating add to this. Schedules must be confirmed months in advance in two blocks: the European Summer schedule and the European Winter schedule. Global rules for slot allocation at normally congested airports, dictate the mandate that airlines must use a high percentage of their slots to retain them for the next season. Airlines also operate to critical constraints such as rostering, air crew flight time limitations and many other highly regulated safety requirements. They therefore have little flexibility for meeting the individual needs of each country into which they operate in the midst of a global pandemic. That said, airlines are doing what they can to facilitate the global movement of people against this backdrop of additional Infection Prevention Controls (IPC) and existential financial threats.

## **Issues**

1. There is no real-time view of status of demand to supply.
2. Every data feed is manual and delivered to an irregular timetable and in a rudimentary format (spreadsheet or flat file).
3. Data feeds from MIAS are poor, due to lack of authentication.
4. There is no planning and scheduling software.
5. There is no system capability to enable effective planning for groups.
6. Airline industry itself is working to many limitations, necessitating late flight cancellations and other constraints that directly and negatively impact MIQ planning.

## **Recommendations**

1. Automate demand and supply planning. This can be done by improving the upfront capture of returnee data (covered in the sections: Enablers - Data Integrity/Reporting, and Technology - Operational Systems).
2. Design an optimum schedule that matches demand with supply, which can be shared with airlines. For example, if direct flights into Christchurch with a specific group can increase MIQ efficiency, airlines may be able to accommodate these. Airlines need more certainty to be able to plan and deliver on forward schedules.

## Airlines and Flight Scheduling

### Current State

NZ Immigration collects two types of information on incoming airline passengers:

- **Advance Passenger Processing (APP)** data collected when a person checks in.
  - APP – Name, passport number and country of issue, nationality, date of birth, gender
- **Passenger Name Record (PNR)** which is information airlines collect about each booking.
  - PNR- Name, contact details, ticketing information, travel itinerary, baggage/seating info, who else is on the booking.

The airlines and NZ Border Agencies (Immigration, Customs, and MPI) have an agreed standard for collection of PNR data that aligns with international conventions. Airlines provide the data at regular hourly intervals prior to the flight (72 hours, 12, two, one and on departure). This data is supplied to MIQ via email.

### State of Airline Industry

Massive uncertainty is stressing the airline industry. Government restrictions change hourly all around the world, creating different conditions in each country; in terms of IPC controls, pre-testing, pre-check-in verifications, transit requirements, mandatory isolation and border closures. As rocks are constantly hitting schedules, crew rostering and duty hours, each airline is having to find ways to adapt and recover. All airlines are impacted, especially with regards to disruption to published schedules. For this reason, there is little ability for airlines to flex to meet the individual requests of different countries.

### Assessment

All airlines interviewed expressed a desire to work closely with MIQ to bring Kiwis home. All noted that they are bearing a significant burden due to the heavily manual processes, and constant volatility within the industry due to pandemic settings.

### Issues

1. Airline schedules are governed by international airport slot rules and conventions such as the filling of summer and winter schedules several months in advance. Due to the pandemic, airlines are being required to manage a high level of variations to schedules.
2. Duplicates in the MIAS system require intensive manual intervention by airlines. This is reducing as processes are being improving.
3. Due to space limitations in managed isolation facilities, many long haul flights are coming in with small passenger numbers which is inefficient and expensive for airlines.
4. The current protocol for arrivals into NZ is that inbound passengers must remain at the airport until their baggage is cleared through Customs. There are four issues with this which are specific to the COVID-19 situation:
  - a) returnees, many of whom are moving their lives back to NZ, are travelling with three to four large suitcases
  - b) returnees are being held at the airport for up to three additional hours while the baggage is processed through Customs



- c) onward transport and charters are being constantly impacted
- d) it becomes harder to administer IPC controls when travellers are exhausted after, for many, 26 plus hour journeys.

## **Recommendations**

1. Airlines need a level of forward planned certainty and clarity to enable them to meet all of the regular constraints placed on them by global regulators, such as duty time limitations. It is recommended that MIQ consider strengthening the dialogue with airlines to deliver a more direct demand and supply match for moving people to specific regions. For example, airlines indicated that they would be happy to establish flights into Christchurch but would need a level of certainty to forward-plan these into schedules.
2. Consider developing a process which enables MIQ to offer late available spaces in managed isolation facilities to airlines, who may be able to fill them with latent demand passengers whom they engage with through their loyalty programmes.
3. Optimise the baggage clearance, handling and forwarding process to minimise returnee wait time at the airport. While baggage is an airport owned issue, of concern to MIQ is the waiting time for inbound returnees at the airport, before being transported to the facility.
4. Eliminate the ability for voucher seekers to game the system by authenticating every entrant to it.

**Note:** Many of the above recommendations are contingent on upgrading the technology with authentication to enable MIQ to know more specific information about each returnee. For example, if MIQ knows that a person lives in Wellington or needs to be near bereaved family members, at the conclusion of their stay in isolation, the airline travel and onward baggage requirements can be managed more efficiently.

## Services in Managed Isolation Quarantine Facilities (MIQFs)

### Current State

The services which are provided in MIQFs fall broadly into the following areas:

- arrival and check-in to MIQF
- manage transportation
- manage health checks and tests
- manage movement within the MIQFs (to smoking and designated exercise areas)
- manage exit from MIQF.

During this rapid assessment, we have not been able to access returnee perspectives as there is no structured process to gather returnee observations. The observations are therefore from MIQ staff who work in the RIQCCs and MIQFs.

Delivery of services within the MIQF is now well established, and there is a process co-ordinated by each RIQCC to ensure that policy mandates and continuous improvements are shared and implemented.

Two key risks were noted in relation to services in the MIQFs.

The most prevalent concern noted is the amount of time returnees have to wait at each checkpoint in their journey. Given that returnees may have already completed many gruelling hours of travel prior to arrival in New Zealand, the long waits for baggage clearance and queuing during the bus transport and check-in processes were singled out for needing improvement.

Separation between incoming, current and exiting returnees was also noted as a concern in some facilities. Aircrew movements are a specific area for improvement.

### Issues

1. Maintaining separation is a key issue and risk in the following scenarios between:
  - a) incoming and outbound returnees
  - b) returnees on short trips to exercise areas and coach drivers
  - c) aircrew, residents who live within the facility (two facilities only) and returnees
  - d) smokers at different durations of stay (and therefore different stages of testing) in designated smoking areas
  - e) people at different stages of the health test and checking process.
2. En route toilet stops are proving to be an issue for the long coach journeys as local councils are not welcoming the transit stop.
3. Checking in and processing which requires completion of paper forms is long winded and difficult; exacerbated by people trying to speak with masks on or non-English speakers.
4. The Operations framework (section 14.6.3) allows for judgement when testing of children and if the day 12 test is refused by children, it allows the MoH to take into account factors like size of bubble, other family member results, exposure risk from country of origin. It was noted by interviewees that this process may not be consistently understood.
5. Separation procedures are required when people are exercising, going for testing etc.

## Recommendations

1. Review separation protocols in all MIQFs and ensure that technology and communication recommendations are implemented.
2. Improve MIQF check-in processes and explore monitored self-check in options to minimise wait time for tired returnees in public areas.
3. Consider the testing guidelines as they apply to children to ensure the correct balance of judgement is applied, with MoH reviewing and updating guidance if necessary to make this clearer and communicate to Public Health Units.

## **Fees**

### **Current State**

The fees system was introduced in August 2020 with the primary objective of providing more financial sustainability for the COVID-19 health response. There was a secondary objective to lower demand for MIQ services. All returnees are liable for fees unless they left NZ before the fee regulations came into force and return to NZ for more than 90 days (NZ citizens and residents, and temporary visa holders who were ordinarily resident in NZ on or before 19 March).

Fees were initially set on a per room basis (\$2,696 plus GST), with additional charges for each extra adult and child. Later higher fees were set for critical workers other than critical health workers. On 15 February 2021 Cabinet agreed to increased fees for temporary entry visa holders and extension of the minimum in-country time requirement for citizens and permanent residents to 180 days. Fees are invoiced on or after departure from a MIQF and become payable after 90 days, except for critical workers where employers can be invoiced before entry and must pay 30 days from date of issue.

Fee waivers are available for undue financial hardship and special circumstances, considered on a case by case basis.

By mid-February 2021 fees of approximately \$31m had been invoiced (over 8,000 invoices) of which \$12m had been paid. There is a backlog of approximately 8,000 invoices still to be issued.

The process for managing fees is heavily manual and supported by complex spreadsheets. Debt collection consists of a set of reminders with plans for amounts due for more than 180 days to be handed to MBIE's external debt collection agency.

MIQ recently transferred the fees team to MBIE's finance function. This team of 12 is larger than MBIE's accounts payable and accounts receivable team.

### **Issues**

The current fees system has a number of design features that reduce its effectiveness and create operational inefficiencies that combine to increase the cost of administering the system and prevent optimal collection outcomes. These are well articulated in the Cabinet Briefing paper of 26 February 2021. In particular, amending the design to an "all liable unless exempt" default setting will enable all returnees to be invoiced on departure, with subsequently approved waivers having those invoices cancelled will provide a much stronger basis for fee recognition and collection.

### **Recommendations**

1. The recommendations in the Cabinet Paper relating to the fees default setting and enablement of information sharing are supported.
2. Financial outcomes can be further improved by obtaining credit card details prior to returnee departure and/or leveraging MBIE's point-of-sale solution. Identifying non-payers (those that depart prior to the in-country requirement) at the border should also be considered.

## **Facilities**

### **Current State**

The 32 facilities in use are all privately owned hotels. They are not purpose-built isolation facilities and are therefore not optimally configured to manage separation of returnee flows on entry, exit and inside the building. Remediation of security and ventilation systems has been necessary. Their locations are also not optimal. Feedback from our interviews indicates that low rise facilities located outside main city centres, with ready access to out-door spaces work best.

Experience with the facilities has raised questions as to whether purpose-built facilities should be considered. Given the likely time it would take to obtain consents and land, design and build facilities, stand up the workforce and commission into operations it would not have been feasible to have the facilities available in time to meaningfully support the COVID-19 response.

Whether it is realistic to commission dedicated isolation facilities to be available for future pandemics would need to be subjected to a business case, taking into account a full evaluation of the effectiveness and cost of the experience with the COVID-19 approach to managed isolation.

# Enablers

## Workforce

### Current State

The MIQ workforce is drawn from different sources and comprises a mix of central government agencies including MBIE, NZDF, NZ Police and the MoH, other Crown agencies such as AVSEC and DHBs, and the private sector including hotel staff and contractors, private security firms, health providers, transport companies and other contractors. This workforce is distributed over the 32 MIQFs, five RIQCCs, and the Head Office located within MBIE.

The workforce totals more than 3,700. Hotel staff make up the largest group (c40%), followed by NZDF (c16%), private security firms (c14%), MBIE (c10%) and DHBs (c8%). Details are included in Appendix 3 – Workforce Analysis: February 2021.

Most NZDF staff are provided on a rotation basis. These rotations vary by role but can be as short as a week. Head Office and RIQCC roles are often for longer periods. NZDF are split between security (around 55%) and other administrative, management and leadership roles. About 1100-1200 NZDF resources are required to sustain an on-the-ground staffing level of 600. The NZDF presence has been important in terms of supporting public trust and confidence in the MIQ system.

The size of the MIQF workforce fluctuates continuously with rotations (principally NZDF but also AVSEC) and the day-to-day operational demands, for example cleaning requirements.

Many staff throughout MIQ work long hours, some for long periods of time. The work environment at MIQFs can be challenging.

DHBs play a key role in providing staff for testing and health checks for MIQF staff and returnees. Staff are assigned to MIQFs. In Auckland there is a pool that augments the testing capacity. Not all DHBs use health assistants for testing.

MIQ is in the process of establishing a dedicated security workforce to ultimately replace the private security workforce. This was requested by Ministers in response to issues with security in the earlier stages of managed isolation. This process has demonstrated the significant complexities involved in setting up a new 24-hour workforce, including considerable time spent engaging with unions and finalising 24-hour rostering requirements.

### Issues

1. The impacts of NZDF staff rotations are significant. Significant time is devoted to induction, however, there is inevitably a loss of accumulated knowledge which impacts efficiency. Handovers take time and there are risks that they are not sufficient. Rotation also makes it difficult to embed continual improvement.
2. The work environment is challenging across MIQ. At the MIQF level in particular there have been instances where staff have faced stigma from their home workplace or the community. These factors drive a need for strong pastoral care for the workforce. There is a plan in place, but it has not been fully rolled-out.
3. Health resourcing is under pressure in Auckland. Unplanned sick leave and other absences can create a daily shortfall of 10-15% of the 160-person workforce. This shortfall is filled with costly agency staff and charge nurses. Although there is no evidence that testing is compromised, it is possible there are shortfalls in daily health checks and general support for returnee well-being.

There is also likely to be additional pressure on DHBs as the vaccination programme ramps up. Around 30-40 additional staff may be needed to provide the optimal level of resourcing. A paper 'Current Status: Future Status of the MIQ Health Workforce' has been sent to the Minister.

4. There are concerns that the Auckland health workforce is under stress given the volume of returnees, and the impacts of community outbreaks which creates downstream risks to IPC.
5. MIQ staff are experiencing stigma in lives outside work, including when they return to their usual workplace.
6. The quality of data supporting reporting of workforce numbers is weak. It is sourced from multiple systems and sources and requires intensive manual effort. Reliability is affected by the continually fluctuating nature of the workforce.
7. The quality, consistency and responsiveness of resourcing from MBIE Information Technology has been a challenge. It is noted that this variance in base technology infrastructure across facilities has also been a key issue, resulting in the slower than optimal roll-out of technology support in the MIQFs.

## Recommendations

1. **Complete development of a plan to civilianise current NZDF roles. Some NZDF capability and presence will be required for as long as the current scale of operations is needed. The plan should define the essential NZDF roles (likely to be an element of MIQF security, some key operational roles and senior leadership) and a phased transition of other roles to appropriately skilled MBIE employees. Target to commence a phased transition by 30 June 2021.**
2. **Work with the MoH and DHBs to remedy shortages in health resourcing in Auckland. Greater use of health assistants, and if necessary, options for training non-health staff to take swabs to release nursing staff for daily health checks and well-being support for returnees should be considered.**
3. Strengthen pastoral care, particularly for MIQF staff, to underpin sustainability of the workforce.
4. Re-set expectations of service from MBIE Information Technology.
5. Strengthen the reporting systems to enable accurate and regular reporting of headcount by location, employer, type and function.

## **Policy**

### **Current State**

The MoH administers the COVID-19 Public Health Response Act 2020 which makes the orders for managed isolation and quarantine. It is the lead agency for oversight of the MIQ health response responsible for public health advice, and as such is the lead agency responsible for much of the policy advice to Ministers.

The MIQ policy function is a mix of MIQ system policy and operational policy. Matters of MIQ system policy include fees and cost recovery, system roles and responsibilities, and advice on broader questions of system design that affect MIQ operations such as safe travel zones and pre-departure testing.

Operational policy comprises the bulk of the resourcing and includes advice on the implementation of legislative and regulatory requirements, including SOP drafting. The general MIQ policy group advises on broader matters such as allocation and supply matters, emergency, group and critical worker allocation capacity and class exemptions.

Within MIQ, there is a Policy team which prepares briefings. The Office of the Deputy Chief Executive deals with information requests.

A significant amount of time is spent on responding to Ministerial requests for briefings and advice.

### **Policy Creation and Implementation**

Policy creation is currently a fragmented and heavily manual process. Each agency within the MIQ ecosystem maintains their own separate policy group, and policy can at times be created independently in the different agencies. This results in time wastage, duplication of effort and confusion. Recent examples have seen two papers on the same topic being written by different agencies and submitted to the Minister.

MIQ is responsible for implementing the policy settings relating to MIQ's role in the managed isolation system, including urgent operationalisation for last minute policy decisions. SOPs are used for documenting and communicating operationalized policy. A master list of policy has been developed and is maintained by the MIQ policy team.

### **Issues**

1. There is a lack of clarity on the statutory footing of MIQ as it relates to information sharing and the rights of returning New Zealanders governed by the Bill of Rights Act. These are only likely to be satisfactorily resolved through primary legislation. Given the time-frame for legislation it is unlikely these issues can be resolved to be of benefit to MIQ.
2. The relationship with the MoH has already been discussed and recommendations made in the section: Inter-Agency Arrangements.
3. There are the normal tensions between policy advice and operations that exist in any complex and moving context. The recent visibility of the policy work programme at the Leadership Team level will help ease these.
4. The link between policy and operations, primarily through the SOPs is not as strong as it needs to be. Action is currently underway to remedy this.
5. Policy decisions will often land at the last minute and MIQ has to find ways to urgently operationalise these, placing considerable stress on the system.
6. Policy created independently results in time wastage, duplication of effort and confusion.



## Recommendations

1. In addition to the recommendation in the section: Inter-Agency Arrangements, apply a RACI framework to the agreed joint MoH/MIQ policy programme.
2. The Lead Agency must leave enough time for consultation and input by participating agencies.
3. Establish with some urgency a working approach which encourages project teams to co-locate for key policy development and/or establish an online collaboration capability and process. This should create visibility of policy development and prevent agencies from working independently on the same policy.
4. Establish a policy initiation process that seeks feedback on a policy need from cross-agency operational people on its viability and what might be needed to implement it.
5. Establish a policy development drafting and approval process that reflects the reality of the pressures imposed by the pandemic.

## **Operating Procedures**

### **Current State**

There is little management of the documentation of business processes at MIQ head office, and an absence of an overarching end-to-end information portal. MIQ is moving to an on-going update and release process for operating procedures.

Current state MIQF operations are underpinned by the operations framework. More detailed procedures are contained within Standard Operating Procedures (SOPs). However, these are not easily accessible to staff outside of MBIE Head Office.

Since August 2020 the framework has been authored by MIQ Operations, with the MoH retaining authorship of the health guidance sections. The framework underwent a significant update in December 2020. It is a comprehensive document that covers site requirements, IPC, staffing, risk management, security and safety, data management, arrival at the border, arrival at the facility, during a returnee's stay, returnee testing, worker testing, exit from a MIQF, children in MIQFs and sports teams in MIQFs.

MIQ Operations approve the Operations Framework and the SOPs, and the MoH approves the health guidance sections.

At the MIQF level there is a MIQF Handbook which assists staff rotating into facilities.

### **SOPs**

There are currently SOPs for the majority of activities, however some become outdated quickly due to the pace of change in the operations. There are also local variations to SOPs that take into account the unique characteristics of facilities.

Previously SOPs were written as complete documents and were re-issued without release notes identifying additions and changes. SOPs now contain tables at the front identifying changes.

RIQCC staff spent considerable time reading documents from cover to cover to identify what had changed, and the instructions that they needed to forward to impacted others, for example global airlines.

### **Issues**

1. The inability to identify changes in re-issued SOPs wastes time and is stressful. This is improving as changes were implemented during the preparation of this report.
2. The approval to local variations to SOPs is not clear and they are often not shared.
3. Global airlines need clear and complete information on changes to current instructions.
4. There are specific requirements for the handling of international aircrew and these are not as rigorous as for returnees.

### **Recommendations**

1. Simplify SOPs with more use of visual methods to communicate key concepts with which facilities need to comply.
2. Issue releases of operating procedure updates on a shared online site, with release notes and/or in both changes-tracked and clean formats; include specific identification of changes that must be communicated to airlines and other stakeholders.

3. Delegate specific authority to RIQCC Managers to approve local variations to SOPs. Any variations relating to health guidance must be approved by the MoH. Local approved variations at the RIQCCs should be stored centrally, for review by MIQ Service Design and Policy.
4. Develop a specific SOP for international aircrew and review the isolation requirements for aircrew in light of an evaluation of current health risks.
5. Create a single Knowledge Portal for all user documentation.

## Communications

### Current State

Four types of communications are handled by the Communications function: preparation of generic communications with returnees, internal MIQ communications, external communications and media management.

- Communications with returnees are predominantly via the MIQ website and the Welcome Pack, although other government agencies also publish related information.
- MIQ internal communications are delivered via normal MBIE communication channels.
- External communications are a mix of external release and response to inbound questions which require comms.
- Media management is a significant part of the Communications team workload.

The current volume of inbound requests means that the Communications teams are predominantly operating as a reactive function, responding to the non-stop requests for information from Ministers' offices, other partner agencies, and the media.

The function is maturing. Initial AoG COVID-19 communications were handled by an external agency. The internal capability of MIQ has not yet been able to provide the full gambit of communications capability. MIQ is in the process of establishing a more robust capability, establishing protocols and practices that will enable them to focus on core and vital activities.

Several respondents noted that the current communications mandate and requirements are 'beyond the capabilities of a typical communications function', and that there is a need to be more proactive, especially with regards to setting expectations with a returnee much earlier.

### Issues

1. Each of the partner agencies (DPMC, MoH, NZDF and MBIE/MIQ) operates their own communications function at two levels: Internal communications and External communications. This can result in the impact and/or accuracy of message being diluted.
2. There is currently no overarching MIQ Strategic Communications plan that complements the AoG and MoH plans.
3. The constant stream of requests for internal and external communications results in the comms team in MIQ having a very high workload. This in turn means that other experts within MIQ are distracted from their core roles to provide responses, data and other information. The interruption driven nature of this results in significant time wastage and duplication.
4. The channels for distribution of major COVID-19 policy announcements with implications for MIQ operations are not clear. MIQ staff often learn about key policy announcements through channels such as the 1pm Daily Stand-up or the media.

### Assessment

There are particular challenges in delivering a unified communications capability across multiple agencies, in such a fast-moving environment as the Covid response. There is a clear need to simplify the process and develop a standardised and unified approach across all partners in the MIQ ecosystem.

If this is supported with a clear and unambiguous strategy, clear efficiencies will be delivered. Vitally important to note in this assessment is the need for all partners in the ecosystem to work more

collaboratively, establishing a process and co-operative working practices which ensure the function remains agile and able to meet the needs of the fast-moving environment.

Another important observation is the fact that the communications function, like many within MIQ suffers from the lack of a standardised, single view of data.

### **Recommendations**

1. Established a unified communications capability across all MIQ partners. Develop a rapid communications development and approval process.
2. Develop a strategic communications policy and plan. This will streamline communications activities and reduce the volume of interrupt driven requests.
3. Adopt more rigorous collaboration practices.
4. Interagency communications: As all participants in the MIQ ecosystem need to understand how important unified and timely communications are to the safety and security of the system, it is recommended that MIQ work with DPMC, MoH and other agencies to ensure that no agency or participant in the system is blindsided by major public announcements.

## **Quality and Assurance**

### **Current State**

The quality and assurance capability is in the process of being established and is not yet fully mature. An integrated risk, assurance and quality framework based on the three lines of defence model has been developed. There is a defined roadmap with priorities established for 2021.

There is a register of key risks across MIQ and the customer journey which identifies 14 very high and high residual risks.

IPC audits are a key part of the assurance process. These occur regularly and are currently in their third tranche. The reviews are conducted by DHBs using a prescribed methodology. Recommendations are tracked and followed up. The number of recommendations for action have decreased over time.

The quality and assurance team is also significantly involved in leading high priority reactive risk matters as they become known, such as the joint technical advisory group for ventilation issues.

### **Issues**

1. Quality and assurance were not built in as the MIQ system was established as a tactical crisis response, so the assurance team is retrofitting processes in an environment of weak systems and reporting, and intensive manual processes.
2. Given the remaining life of the MIQ system it is unlikely that the quality and assurance frameworks will reach a fully mature state before the system is scaled down or closed. As the recommendations are made and systems are implemented, there is an opportunity to embed quality processes.

### **Recommendations**

The assurance team should align resources to implementing only the necessary elements of the framework (for example the risk register) and focus on executing the work programme aligned to the assessment of residual risks and leading high priority reactive risk matters.

## Data Integrity / Reporting

The mechanisms governing data sharing in the cross agency MIQ model result in manual work-arounds, involving re-work and significant delays, being the operational norm. Extant processes are invented on the fly to deal with each individual case, and core systems are not integrated, resulting in poor quality data and inaccurate reporting.

The data used in situational, daily and periodic reporting comes from multiple systems: MIAS, NBS, BCMS and BWTR. Typically, data is extracted from these systems and copied into multiple uncontrolled spreadsheets to create key management reports. There are a number of reports, derived from multiple sources, utilising significant manual effort. There is limited regular reporting of key performance indicators.

With no single source of data, there is little trust in the current daily reporting and continual work-arounds, while meeting a short-term need are placing additional pressure on the system.

A count on commencement of this review identified over 60 uncontrolled spreadsheets being used for ad hoc and regular reporting. The spreadsheets support the core MIQ processes: Planning, Allocations, Management of Groups, Fees, Waivers and more. An improvement project has been established by the National Planning function. Adoption of improved ways of working is key.

### Assessment

As noted in the section: Enablers - Workforce, the challenges of standing up a new and complex capability, in a pandemic, under intense pressure and public scrutiny, required people to be agile and adaptive. While necessary, constant prioritisation of the urgent has resulted in the creation of a data set that is fragmented, frequently inaccurate and lacking requisite data protection.

Report collation today is manual, amalgamating data from multiple sources and manually manipulating it.

Some work has been started to develop a unified dataset (data lake), however until the up and downstream data processes and systems are improved, this will deliver limited benefit.

It is now imperative that cross agency reporting requirements are standardised and a set of key reports is confirmed.

### Issues

1. Lack of unified system. Data is held in multiple locations and there is **no single source of the truth**. These include but are not limited to: spreadsheets, survey tools, systems such as Salesforce and MS Dynamics, and agency systems, such as MIAS, NBS, and BWTR.
2. Report generation is unsophisticated and labour intensive. When reports need to be generated to provide vital decision-making information to meet Ministers' and other stakeholders' requests, it is currently generated manually.
3. There are no centralised data extraction or reporting standards.
4. Data integrity is compromised by the lack of a centralised data warehouse. Data extraction and reporting standards combine to result in the proliferation of data sources and work-around spreadsheets.
5. Data security (and therefore privacy) is a key issue and risk, as data is stored in non-secure locations; such as spreadsheets, across a wide range of devices (agency and personal devices).

6. Capability – current capability is not fit for purpose in a system where there is no data warehouse, and disparate heavily manual data management processes. Evidenced by high levels of attrition in the data team.

## Recommendations

1. Define the minimum Management Reporting standard which covers MIQ, RIQCCs and MIQFs. This information exists across emails and other documents and should not be difficult to compile.
2. Leverage core approved MBIE reporting tools such as PowerApps and mandate these as the required tools for generating and storing reports.
3. Establish a library of core and common reports, and a mechanism for requesting new reports.
4. Accelerate establishment of the data lake to enable better use of data for analytics and reporting.

Entity	Data/Systems	Other Tools
32 MIQFs	Use own systems for managing accommodation and room rotation. May provide spreadsheets to MIQ following check in.	Data is stored in a range of secure and non-secure systems.  Spreadsheets, survey tools and other data manipulation and reporting tools have proliferated.
5 RIQCCs	MIAS, Shared inboxes.	
MBIE Head Office	MIAS, Shared inboxes, MiFEE, MIQ Batch Spreadsheet, QuickPay, TechnologyOne, Customer Hub, Verifi Ap (identity check against DIA and INZ data), Salesforce for isolation exemption applications (inherited from MoH), Progenitor.	
MoH	NBS/NCTS, Salesforce, BWTR, BCMS	
DHBs	Testing and health checks for staff and returnees.	
INZ	AMS/MRS, APP. MRS includes data from Customs API for arrivals and departures.	
Returnee/other traveller	MIAS portal, online forms for fee exemption and waiver applications.	



## Technology – Infrastructure

### Current State

The multi-agency participation in MIQ necessarily saw staff from each agency using their own networks and systems in the absence of a shared network and platform. The staff of each agency have continued to work on the networks of their home agency for email and core system access. Health technology is provided by Health Alliance and MIQ technology support by MBIE. As MIQ has matured, a standardised network is being rolled out to the RIQCCs and MIQFs. WIFI has recently been implemented in all 32 MIQFs, with a printer and two Chrome Notebooks provided for MIQ staff in each facility.

As is normal in newly established, fast paced environments, driven by safety or security mandates, minimum viable product (MVP) is put in place to meet basic needs. The processes tend to be labour intensive, and the decision point for increasing the levels of automation must be weighed against the time remaining for MIQ operations. Systems and dashboards are continually introduced to meet urgent needs and to capture vital data. While each innovation is welcome at a local level, it can add complexity unless it is nationally scalable.

### Issues

1. There are challenges in building at speed and ensuring interoperability across all platforms. The absence of a unified network has efficiency impacts on operations, notably that it complicates the process of information and data sharing and collaboration.
2. Network access for all staff operating within the MIQ ecosystem is inconsistent. For example, Auckland RIQCC is awaiting network upgrade, while others have limited access, and three more MIQFs will be upgraded in April.
3. Collaboration which is vital in a multi-agency environment is extremely difficult due to the limitations of the technology and a lack of shared platform.
4. Communications and interactions with customers are stored in multiple locations (phone, group emails, individual MBIE email). These currently sit across the bespoke systems of MoH, DHBs, MIQ, NZD, Police and others.
5. Data classification, filing, storage, retrieval, and archiving are issues across the system. Without unified knowledge repositories, expected levels of information management are degraded.

### Recommendations

1. **Strengthen IT infrastructure. Technology in RIQCCs and MIQFs is being progressively upgraded. It is now urgent to ensure the upgrade of the network at the RIQCCs and MIQFs is completed to allow staff to have sufficient access to the systems and tools they need to do their job.**
2. Provide additional shared devices for MIQF staff to enable them to access Standard Operating Procedure updates and learning courses online or give direct access to MIQ systems.
3. Improve Broadcast Communications technology capability in all MIQFs; as each different MIQF has its own broadcast communications systems; guidelines for this need to be provided to each MIQF.

## Technology – Operational Systems

### Current State

The MIQ operational systems landscape comprises systems created by all the partner agencies, MoH, Defence, Police and MBIE. Many of these leverage existing platforms within each agency and were stood-up to meet the urgent and evolving needs of MIQ in its establishment phase.

Core systems used in MIQ Operations include:

- **Customer Hub** – currently being built and tested
- **MIAS** – Managed Isolation Allocation System
- **NBS** – National Border System
- **NCBS** – National Clinical Border System
- **BWTR** – Border Workforce Testing Register
- **Vaccines Register**
- **Who's on Location?** – Workforce location record.

### Customer Hub

Communications and interactions with customers are currently stored in multiple locations (phone, group emails, individual MBIE email). A Customer Hub (Microsoft Dynamics) case management solution is being built which will bring together communications with the 10% of returnees who enter one of the identified exceptions pathways (exceptions, exemptions, fee queries, waivers, and complaints). This is due for release in late April.

### MIAS

MIAS was stood-up to meet an urgent need and has performed this role effectively, given that its primary aim was to enable a returnee to NZ to secure a voucher for managed isolation. Developed as a Minimum Viable Product (MVP) to meet this urgent short-term need, it was based on a tool designed to manage the APEC conference. Over time incremental improvements have been made to provide data feeds that enable MIQ to perform basic operations. The limited scope of the initial functionality has meant that many processes are handled manually outside of the system, including room allocations, flight changes which impact returnees, planning, forecasting and management of groups.

This has created significant manual work-arounds in MIQ end-to-end operations, a proliferation of spreadsheets and inefficiencies, such as multiple vouchers being held by one person (referred to as the 'duplicates process'). Continuous improvements are being made to MIAS to allow for key missing information to be captured, vital health related details to be given greater data protection and earlier identification of duplicate vouchers.

That said, a significant proportion of the end-to-end process for 'Issuing of Vouchers to Room Allocation' remains outside of the system and still requires manual processing.

The exporting of data from MIAS was noted by several interviewees, especially ARIQCC planners and IDI, as a barrier to efficiency. Data extraction via a batch file and the lack of standard API's limit the way in which vital data can be exported and exploited for operational use.

Finally, the flat file structure of MIAS is unable to support the efficient transfer of data to other systems and is unlikely to be able to support the scenario modelling that will be required as NZ moves towards a

variable model of managed isolation which could include different requirements for groups, travel bubbles, green travel zones, home isolation and fee structures.

The legal agreements for the sharing of data which is required for efficient operations are covered in the section: Enablers - Information and Data Sharing.

## **Spreadsheets**

A recent project to reduce the proliferation of uncontrolled spreadsheets, is delivering positive improvements. Centralised storage and naming conventions have been introduced and cleaner data feeds are available in MIAS.

Despite this, spreadsheets, many of which contain sensitive data, continue to be used for core processes such as forecasting, groups, planning, allocation, transfers, and reporting.

Improvement work will need to continue at pace to reduce the ongoing risk of multiple versions of the same data being manipulated into views, analyses and reports for different purposes or regions. An example of this is the lack of a unified view of room status usage across all MIQFs and RIQCCs, presented in a format that can be dynamically matched with airline arrivals data. This remains a highly manual process that relies on regular updates from each of the 32 MIQFs.

## **Assessment**

The current technology set, built at speed, has enabled MIQ to perform its basic function of issuing vouchers to returnees and keeping managed isolation facilities operational, albeit with planning activities performed manually. The leadership commitment to streamline operations, with an initial focus on reducing reliance on ad hoc spreadsheets, followed by the establishment of a National Planning capability, has moved MIQ to a place where current operations are manageable, with the business owner of the Planning and Allocation process reporting that 'the MIAS system is working for us ... (now that we have made recent improvements)'. Inherent weaknesses remain in the technology set, and in an ideal world MIQ would strive to re-platform MIAS to ensure interoperability across all MBIE platforms.

This assessment has therefore looked at technology through the lens of whether the current system is robust enough deliver the functionality that will be required to meet future needs.

While the different travel and entry options being considered by Ministers may reduce pressure on allocation of rooms, they are likely to add a level of complexity to the system which will require advanced scenario and response planning.

It is therefore appropriate to take stock at this point and ask four key questions. Namely, whether:

- the current system can handle variable and potentially higher risk returnee scenarios (travel bubbles, corridors, traffic light zoning, length of stay, testing regimes, vaccination status).
- it remains sensible to operate MIAS and Customer Hub as two separate systems if the time horizon of MIQ extends to December 2022.
- a non-technology improvement such as outsourcing the whole booking process may be sensible over time.
- MIQ needs to leave a legacy capability (system and processes) that can rapidly stand-up support for future pandemics.

## Issues

1. Communications and interactions with customers are stored in multiple locations (phone, group emails, individual MBIE email). A Customer Hub (MS Dynamics) is being built as a front door to the existing case management systems, which will address part of this need.
2. MIAS was stood-up to meet an urgent short-term need. Its design envisaged that a single user would operate it with a much smaller data set. Its foundations are not architected for the scale of what is now being asked of it, and its flat file structure limits its ability to be able to handle the upcoming requirements of MIQ.
3. MIAS access is limited to a very few people. In the current process this creates a bottleneck that puts stress on a small number of experts.
4. The limitations of MIAS resulted in a proliferation of uncontrolled spreadsheets which contain sensitive data. These have been created to meet urgent needs, with data manipulated into views, analyses, dashboards, and reports in multiple different places and in different ways. This has led to a lack of trust in what people are seeing, which is a significant impediment to efficient and effective operations. As noted above, since this report was drafted, this is a priority improvement focus for the National Planning team.
5. Cyber security and fraud risk are both very real for a system that is not built to industrial strength. The MIAS system can be 'gamed' by frustrated or malicious hackers. To date, there has been only one report of attempted voucher fraud which was picked up before boarding, however as the global travel system becomes more complex with emerging controls, travel bubbles, and vaccine passports, the risk will increase. Significant fraud has been seen in pre-departure testing records at the point of departure in several countries<sup>1</sup>.

## Recommendations

1. **Strengthen systems and data integrity. Build out technology systems to support the automation of end-to-end processes from voucher application to MIQ exit, and to future proof MIQ. The solution should be compliant with MBIE's technology architecture and provide connectivity to other agencies.**
2. Create an intelligent portal that enables MIQ to verify and authenticate everyone at point of entry.
3. Use this authentication to follow the journey of returnees longitudinally through the MIQ system.
4. Consider extending the Customer Hub (MBIE standard platform, MS Dynamics) to include the step of securing a voucher. When built, migrate the voucher allocation function into the new platform.
5. Consider implementing a standard add-on to MS Dynamics to provide a more sophisticated booking management capability, which enables the matching of vouchers to allocated rooms. Alternatively, consider outsourcing the booking process to the private sector.

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<sup>1</sup> IATA website, 2021

## **Administrative and Contractual Arrangements**

### **Current State**

Administrative and contractual arrangements in place between MIQ, hotel operators and third-party service providers were set-up in urgency by MoH to enable a response in a scale not seen before in New Zealand. There is recognition that the need to set-up facilities and related services within hours meant that the contracting parties did not have robust conversations at this stage.

MIQ is currently updating contracts with all suppliers, employing a more robust tendering process. When an update or extension is required, contracts are moved across to the standard MBIE form of contract. An example is the recent tender for Air Services which has released significant savings and strengthened the contract terms.

A range of legislation underpins the settings under which MIQ operates. These include the Health Act (Section 70 (1)(f)), COVID-19 Public Health Response Act 2020 and Border Orders. Related legislation includes: Civil Defence Emergency Management Act, Epidemic Preparedness Act, and the Privacy Act (which has provisions for Health Exceptions).

### **Issues**

The relationship between participants in the MIQ ecosystem is characterised by the shared goal of protecting public health, enabling swift issue resolution. No specific issues with service delivery by third party service providers were noted.

1. The lack of a robust end-to-end process and system to manage variations in the supply chain (moves, adds, changes, delays, cancellations, mandated public health requirements) results in MBIE paying a premium for last minute bookings for land transport movements, other services and cancellations.
2. There is some cost transparency in the contract terms. While MBIE notes that it recognises the need for private businesses to make a profit, it requires greater visibility of how expenditure within MIQs is allocated.
3. Some activities have been mandated to the public without explicit legal underpinning; it has been noted that more discipline is required.

### **Assessment**

MIQ contract management capability is maturing and strengthening as it leverages the procurement capability within MBIE, and contracts with MIQs and other providers were recently loaded into Progenitor, the MBIE contracts management system.

In particular, mandating status updates and reports from MIQs in a standardised format will result in significant efficiencies. The need to ensure facilities have good people management practices and are paying the living wage, as well as health related requirements such as IPC standards, testing and vaccines are under consideration for inclusion in contracts.

## **Recommendations**

### **Hotel operators**

1. Establish a Supplier Portal for all hotels (MIQFs), to communicate standard requests and other key contract and supply information in a consistent way across all MIQFs.
2. Improve clarity of what is expected of each facility beyond the commercial terms.

### **Third party service providers**

Strengthen communications with other third-party suppliers in line with the current plans. This includes services for cleaning, maintenance, food supply, security fencing, coach transport, and airline charters.

# Treaty of Waitangi – Te Tiriti ō Waitangi

## Current State

There is recognition that there was a significant omission during the MIQ set-up phase to consider Treaty obligations. Interviewees confirmed that the initial engagement with Iwi during the establishment phase of MIQ was not deep or broad enough, and that the frameworks were not in place to ensure that this important relationship was developed and nurtured. There was also recognition that the speed at which MIQ was established compromised MIQ’s ability to develop the relationship in an optimal way.

The importance of Treaty considerations has been strengthened with the appointment into MIQ of the Director Māori. The initial appointment is a short-term appointment to stand-up the role; a permanent appointment is imminent. The initial work involves the establishment of a work programme for Treaty partner relationships and strengthening across the MIQ network of Kaupapa Māori and Te Au Māori.

During the initial urgent set up phase of MIQs in the regions, all Treaty partners noted that more profound engagement was needed. A rapid assessment was done of the level of engagement in each of the regions as shown below.

There is now an Iwi-Māori chair in each of the five regions, and MIQ senior leadership at CE, DCE and GM level are starting to engage with the Chairs.

There is an intent to further build on these engagements to forge a stronger working partnership, which will ensure that Treaty obligations are met, and the voice of Iwi is woven into the fabric of MIQ.

Region	Nothing	Connection	Relationship
Tamaki/Auckland	√		
Waikato		√	
Rotorua			√
Wellington	√		
Christchurch		√	

## Issues

1. It was acknowledged that there was a less than optimal nationwide engagement during the MIQ set-up phase to consider the needs of Iwi.
2. After this initial oversight, there has been a strengthening of relationships at different levels: between senior leaders in MIQ and Iwi representatives, and on the ground in regions.
3. There is a varying level of engagement across the regions, with relationships strongest in Rotorua.
4. The shared understanding of needs is maturing but still has a long way to go. What are the particular needs of Iwi? For example, is the importance of family reunification, and protocols around repatriation of bodies understood in the granting of vouchers.

5. Communications with Treaty partners are currently passive and need to become more engaging and proactive.
6. There is a need for a more integrated way of working between Treaty partners, MIQ at a national level, the RIQCCs and MIQFs.

## Recommendations

1. **Strengthen Iwi-Māori partnerships in all regions. Continue relationship building and ensure continued development of the partnerships.**
2. Continue formulation of a framework for nationwide engagement with Iwi to ensure that Treaty obligations are met. Ensure that policy reflects the special requirements of Iwi within the general controls of a pandemic response.
3. Continue to strengthen relationships at different level between senior leaders in MIQ and Iwi representatives, and on the ground in regions.
4. Focus more effort on the regions where levels of engagement are least strong.
5. Build the knowledge base of insights into the things that are important to Iwi in the context of an MIQ setting. Capture and share these in an appropriate form, noting that the narrative is important in the communications with partners. What are the particular needs of Iwi? For example, the importance of family reunification, protocols around tangi and the handling of death in an MIQF, urban versus rural needs.
6. Update specific requirements into the Standard Operating Framework. This includes, but is not limited to, operational procedures handling decision making around sensitive handling of protocols for the handling of death in a MIQF, and any Iwi related considerations in the allocation of vouchers, and granting of emergency requests, fees, and waivers.
7. Consider the broader community concerns such as what are the risks of having an MIQF nearby.
8. Communications with Treaty partners are currently passive and need to become more engaging and proactive.
9. There is a need for a more integrated way of working between Treaty partners, MIQ at a national level, RIQCCs and MIQFs.



# Appendix 1 – Recommendations

This appendix provides the full set of recommendations. A tracking table will be developed to ensure that ownership and priorities can be assigned to all recommendations.

## High Priority

1. **Strengthen systems and data integrity.** Build out technology systems to support the automation of end-to-end processes from voucher application to MIQ exit, and to future proof MIQ. The solution should be compliant with MBIE’s technology architecture and provide connectivity to other agencies.
2. **Strengthen IT infrastructure.** Technology in RIQCCs and MIQFs is being progressively upgraded. It is now urgent to ensure the upgrade of the network at the RIQCCs and MIQFs is completed to allow staff to have sufficient access to the systems and tools they need to do their job.
3. **Complete development of a plan to civilianise current NZDF roles.** Some NZDF capability and presence will be required for as long as the current scale of operations is needed. The plan should define the essential NZDF roles (likely to be an element of MIQF security, some key operational roles and senior leadership) and a phased transition of other roles to appropriately skilled MBIE employees. Target to commence a phased transition by 30 June 2021.
4. **Work with the MoH and DHBs to remedy shortages in health resourcing in Auckland.** Greater use of health assistants, and if necessary, options for training non-health staff to take swabs to release nursing staff for daily health checks and well-being support for returnees should be considered.
5. **Review the support function’s planned and actual headcount** through the lens of the minimum requirement to support the MIQ system until 31 December 2022.
6. **Continue with the rapid roll-out of the National Planning Function to increase efficiency and eliminate duplication between national operations functions and the RIQCCs.** Ensure standard processes, protocols and tools are used across all planning activities, and strive to ensure that there is cultural alignment across teams. Continue national management of responses to Ministers, management of exemptions, group arrivals and emergency allocations. Create a single planning team located across HQ and the RIQCCs.
7. **Strengthen Iwi-Māori partnerships in all regions.** Continue relationship building and ensure continued development of the partnerships.
8. **Formalise MIQ’s information gathering powers in the COVID-19 Health System Response Act** and complete and operationalise the Information Sharing MoUs.

## Priority

### Operating model

1. Implement the permanent MBIE MIQF leadership structure being trialled in Auckland across all MIQFs.
2. Review resourcing levels for MIQFs and if needed reallocate resources from smaller MIQFs to larger ones and/or augment staffing for larger MIQFs.
3. Once recruited, push day-to-day operational issue management down to level three in the organisation structure to enable the leadership team the space to focus on prioritisation, risk management, future planning and performance monitoring of the MIQ operation.

### **Inter-Agency Arrangements**

1. Capture with the MoH the scope of the policy function within MIQ, acknowledging the MoH lead role relating to certain policy settings for the managed isolation system such as IPC, and the need for effective consultation with MIQ.
2. Exchange MIQ and MoH forward policy programmes and develop an agreed joint policy work programme with the MoH that identifies for each initiative which agency leads and which is consulted. Establish joint teams on policies that require extensive collaboration.
3. Establish single MIQ/MoH Incident Management Teams for issues emanating from the MIQ system, with senior representation from both agencies. The MIQ-TAG team referred to in Issue 3 above is a proven model.
4. Focus the established MIQ, MoH and DHBs oversight group on working to ensure DHB resourcing and service consistency issues are progressed.

### **Information and Data Sharing**

1. Develop a Data Ownership Map of all key data, clearly identifying data elements which require special or unique protections. This will enable all partners in the ecosystem to share a common view of data for reporting purposes. It will also enable the development of a comprehensive data sharing protocol to replace the individual data sharing agreements which need to be drawn up every time an individual data element needs to be shared. Note that this would need to be formalised in an Approved Information Sharing Agreement (AISA), approved by the Privacy Commissioner.
2. Develop the Data Sharing Protocol, to provide an over-arching view of all the data elements that are required for efficient running of MIQ operations.
3. Establish and implement a Common/Shared Data Model policy.
4. Obtain positive consent from returnees who supply personal information. This would be for nominated information to be used to streamline their arrival and stay in MIQ and protect their well-being.

### **Capacity Management**

1. Review the requirement for cohorting. Unless recommended by the MoH as an infection prevention control, cohorting should not be proceeded with.
2. Consider more sophisticated modelling that could enable higher capacity utilisation.

### **Returnee Communication and Information**

1. Ensure that waiver, exemptions and restrictions communications are framed with the appropriate legal basis on which decisions have been made.
2. Continue to communicate with returnees through their journey and during their stay in a MIQF, via the channel that will be established by improving the system. See the recommendations in the section: Enablers -Technology Operational Systems.
3. For communications during a returnee's stay in a MIQF, a recommendation to improve broadcast communications within each MIQF is covered in the section: Core Processes - Services in Managed Isolation Facilities (MIQFs).

### **Manage Allocation – Individuals**

1. Create an ‘intelligent’ front-end portal which enables authentication/verification of all entrants into the hub.
2. Customer Hub – ensure that all customers are fully integrated within the Customer Hub for the duration of the end-to-end process (customer journey).
3. Establish a tightly managed technology project to progress the recommendations above, capture the future state end-to-end process, and define use cases for all required scenarios.
4. As an interim solution, immediately simplify this process by basic automation of the data feeds out of MIAS and into allocations spreadsheets.
5. Review the voucher application forms and process to ensure positive consent is obtained from returnees for accessing and sharing personal information for the purposes of managing their end-to-end involvement with MIQ and contact tracing.

### **Manage Groups**

1. All the recommendations relating to technology improvements noted in the previous section on individual allocations are relevant for groups, with some additional functionality requirements.
2. Implement a Group Portal that enables two-way tracked dialogue with groups during the planning activities which can take several months. Data and insights from these planning activities will help MIQ to improve service and operations for future groups. Gather better insights into the broader needs of the travelling group such as cultural, training, dietary, medical, mental health, and mobility needs.
3. Design and map the optimum groups allocations process. This will help to inform the technology need.

### **Planning and Scheduling**

1. Automate demand and supply planning. This can be done by improving the upfront capture of returnee data (covered in the sections: Enablers - Data Integrity/Reporting, and Technology - Operational Systems).
2. Design an optimum schedule that matches demand with supply, which can be shared with airlines. For example, if direct flights into Christchurch with a specific group can increase MIQ efficiency, airlines may be able to accommodate these. Airlines need more certainty to be able to plan and deliver on forward schedules.

### **Airlines and Flight Scheduling**

1. Strengthen the dialogue with airlines to deliver a more direct demand and supply match for moving people to specific regions. For example, airlines indicated that they would be happy to establish flights into Christchurch but would need a level of certainty to forward-plan these into schedules.
2. Develop a process which enables MIQ to offer late available spaces in managed isolation facilities to airlines, who may be able to fill them with latent demand passengers whom they engage with through their loyalty programmes.
3. Optimise the baggage clearance, handling and forwarding process to minimise returnee wait time at the airport. While baggage is an airport owned issue, of concern to MIQ is the waiting time for inbound returnees at the airport, before being transported to the facility.
4. Eliminate the ability for voucher seekers to game the system by authenticating every entrant to it.

### **Services in Managed Isolation Quarantine Facilities (MIQFs)**

1. Review separation protocols in all MIQFs and ensure that technology and communication recommendations are implemented.
2. Improve MIQF check-in processes and explore monitored self-check in options to minimise wait time for tired returnees in public areas.
3. Consider the testing guidelines as they apply to children to ensure the correct balance of judgement is applied, with MoH reviewing and updating guidance if necessary to make this clearer and communicate to Public Health Units.

### **Fees**

1. The recommendations in the Cabinet Paper relating to the fees default setting and enablement of information sharing are supported.
2. Obtain credit card details prior to returnee departure and/or leveraging MBIE's point-of-sale solution. Identifying non-payers (those that depart prior to the in-country requirement) at the border should also be considered.

### **Workforce**

1. Strengthen pastoral care, particularly for MIQF staff, to underpin sustainability of the workforce.
2. Re-set expectations of service from MBIE Information Technology.
3. Strengthen the reporting systems to enable accurate and regular reporting of headcount by location, employer, type and function.

### **Policy**

1. Apply a RACI framework to the agreed joint MoH/MIQ policy programme.
2. Require Lead Agencies to leave enough time for consultation and input by participating agencies.
3. Establish with some urgency a working approach which encourages project teams to co-locate for key policy development and/or establish an online collaboration capability and process for example via Microsoft Teams. This should create visibility of policy development and prevent agencies from working independently on the same policy.
4. Establish a policy initiation process that seeks feedback on a policy need from cross-agency operational people on its viability and what might be needed to implement it.
5. Establish a policy development draughting and approval process that reflects the reality of the pressures imposed by the pandemic.

### **Operating Procedures**

1. Simplify SOPs with more use of visual methods to communicate key concepts with which facilities need to comply.
2. Issue releases of operating procedure updates on a shared online site, with release notes and/or in both changes-tracked and clean formats; include specific identification of changes that must be communicated to airlines and other stakeholders.
3. Delegate specific authority to RIQCC Managers to approve local variations to SOPs. Any variations relating to health guidance must be approved by the MoH. Local approved variations at the RIQCCs should be stored centrally, for review by MIQ Service Design and Policy.

4. Develop a specific SOP for aircrew and review the isolation requirements for aircrew in light of an evaluation of current health risks.
5. Create a single Knowledge Portal for all user documentation.

### **Communications**

1. Established a unified communications capability across all MIQ partners. Develop a rapid communications development and approval process.
2. Develop a strategic communications policy and plan. This will streamline communications activities and reduce the volume of interrupt driven requests.
3. Adopt more rigorous collaboration practices.
4. Interagency communications: MIQ work with DPMC, MoH and other agencies to streamline communications to ensure that no agency or participant in the system is blindsided by major public announcements.

### **Quality and Assurance**

1. Align Assurance Team resources to implementing only the necessary elements of the framework (for example the risk register) and focus on executing the work programme aligned to the assessment of residual risks and leading high priority reactive risk matters.

### **Data Integrity / Reporting**

1. Define the minimum Management Reporting standard which covers MIQ, RIQCCs and MIQFs. This information exists across emails and other documents and should not be difficult to compile.
2. Leverage core approved MBIE reporting tools such as PowerApps and mandate these as the required tools for generating and storing reports.
3. Establish a library of core and common reports, and a mechanism for requesting new reports.
4. Accelerate establishment of the data lake to enable better use of data for analytics and reporting.

### **Technology – Infrastructure**

1. Provide additional shared devices for MIQF staff to enable them to access Standard Operating Procedure updates and learning courses online or give direct access to MIQ systems.
2. Improve Broadcast Communications technology capability in all MIQFs; as each different MIQF has its own broadcast communications systems; guidelines for this need to be provided to each MIQF.

### **Technology – Operational Systems**

1. Create an intelligent portal that enables MIQ to verify and authenticate everyone at point of entry.
2. Use this authentication to follow the journey of returnees longitudinally through the MIQ system.
3. Consider extending the Customer Hub (MBIE standard platform, MS Dynamics) to include the step of securing a voucher. When built, migrate the voucher allocation function into the new platform.
4. Consider implementing a standard add-on to MS Dynamics to provide a more sophisticated booking management capability, which enables the matching of vouchers to allocated rooms. Alternatively, consider outsourcing the booking process to the private sector.

### **Administrative and Contractual Arrangements – Hotel operators**

1. Establish a Supplier Portal for all hotels (MIQFs), to communicate standard requests and other key contract and supply information in a consistent way across all MIQFs.

2. Improve clarity of what is expected of each facility beyond the commercial terms.

#### **Administrative and Contractual Arrangements – Third Party Operators**

1. Strengthen communications with other third-party suppliers in line with the current plans. This includes services for cleaning, maintenance, food supply, security fencing, coach transport, and airline charters.

#### **Treaty of Waitangi**

1. Continue formulation of a framework for nationwide engagement with Iwi to ensure that Treaty obligations are met. Ensure that policy reflects the special requirements of Iwi within the general controls of a pandemic response.
2. Continue to strengthen relationships at different level between senior leaders in MIQ and Iwi representatives, and on the ground in regions.
3. Focus more effort on the regions where levels of engagement are least strong.
4. Build the knowledge base of insights into the things that are important to Iwi in the context of an MIQ setting. Capture and share these in an appropriate form, noting that the narrative is important in the communications with partners. What are the particular needs of Iwi? For example, the importance of family reunification, protocols around tangi and the handling of death in an MIQ, urban versus rural needs.
5. Update specific requirements into the Standard Operating Framework. This includes, but is not limited to, operational procedures handling decision making around sensitive handling of protocols for the handling of death in an MIQF, and any Iwi related considerations in the allocation of vouchers, and granting of emergency requests, fees, and waivers.
6. Consider the broader community concerns such as what are the risks of having an MIQF nearby.
7. Communications with Treaty partners are currently passive and need to become more engaging and proactive.
8. There is a need for a more integrated way of working between Treaty partners, MIQ at a national level, RIQCCs and MIQFs.

MIQ should apply a cost/benefit framework based on an assumption of the probable length of time managed isolation facilities will be required, and what infrastructure including technology, systems, processes and procedures can usefully be carried forward and used when future pandemics require a managed isolation response.

## Appendix 2 – Abbreviations

Abbreviations used in this document are listed below.

Abbreviation	Meaning
AoG	All of Government
APEC	Asia-Pacific Economic Cooperation
APP	Advanced Passenger Processing
ARIQ	Auckland Regional Isolation and Quarantine
AVSEC	NZ Aviation Security Service
BCMS	Border Clinical Management System
BORA	Bill of Rights Act 2020
BWTR	Border Workforce Testing Register
CE	Chief Executive
DCE	Deputy Chief Executive
DHB	District Health Board
DPMC	Department of the Prime Minister and Cabinet
GM	General Manager
IATA	International Air Transport Association
ICAO	International Civil Aviation Organisation
ICT	Information and Communication Technology
IPC	Infection Prevention and Control
MBIE	Ministry of Business, Innovation and Employment

Abbreviation	Meaning
MIAS	Managed Isolation Allocation System
MIF	Managed Isolation Facility
MIQF	Managed Isolation or Quarantine Facility
MIQ	Managed Isolation and Quarantine
MOH	Ministry of Health
MoU	Memorandum of Understanding
MVP	Minimum Viable Product
MPI	Ministry for Primary Industries
NBS	National Border System
NCBS	National Clinical Border System
NCTS	National Contract Tracing System
NZ	New Zealand
ODCE	Office of the Deputy Chief Executive
PNR	Passenger Name Record
RACI	Responsibility Assignment Matrix
	[do we need?]
RIQCC	Regional Isolation and Quarantine Command Centre
RSE	Recognised Seasonal Employee
SOP	Standard Operation Procedure
TOR	Terms of Reference

## Appendix 3 – Workforce Analysis: February 2021

Location		MIQ (MBIE)	NZDF	NZDF Security	MoH	DHB	NZ Police	AVSEC	Other Govt	Private Security	Hotel staff	Others	Total	
MIQ Head Office	DCE	11											11	
	Office of the DCE	17											17	
	ADCE	107											107	
	Engagement & SD	44											44	
	MIQ Operations		19										19	
	National Operations	60											60	
	MIQ Health				1								1	
	Service Quality and Assurance	36												36
	Communications	10												10
	Policy	29												29
	<b>Total MIQ Head Office</b>	<b>314</b>	<b>19</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>334</b>
RIQCCs	RIQCC Auckland	15	23		6	7	12	2	3			4	72	
	RIQCC Hamilton	1	3	1		1	1						7	
	RIQCC Rotorua	2	3			14							19	
	RIQCC Wellington	1	3			1		2					7	
	RIQCC Christchurch	11	6			6	1	1	1				26	
	<b>Total RICQQ</b>	<b>30</b>	<b>38</b>	<b>1</b>	<b>6</b>	<b>29</b>	<b>14</b>	<b>5</b>	<b>4</b>	<b>0</b>	<b>0</b>	<b>4</b>	<b>131</b>	
MIF/Qs	MIF/Qs Auckland	27	80	175	10	117	55	60		225	921	21	1721	
	MIF/Qs Hamilton	2	20	74		55	25			81	118	13	388	
	MIF/Qs Rotorua	1	12	64			9			28	79	9	202	
	MIF/Qs Wellington	3	8	24	1	22	10	12		11h	49	1	141	
	MIF/Qs Christchurch	11	80			68	82	123		133	319		816	
	<b>Total MIF/Qs</b>	<b>44</b>	<b>200</b>	<b>337</b>	<b>11</b>	<b>262</b>	<b>181</b>	<b>195</b>	<b>0</b>	<b>508</b>	<b>1486</b>	<b>44</b>	<b>3268</b>	
<b>Total Workforce</b>	<b>388</b>	<b>257</b>	<b>338</b>	<b>18</b>	<b>291</b>	<b>195</b>	<b>200</b>	<b>4</b>	<b>508</b>	<b>1486</b>	<b>48</b>	<b>3733</b>		



## Appendix 4 – Names and Titles of Interviewees

Name	Title	Organisation
Carolyn Tremain	Chief Executive	MBIE
Megan Main	Deputy Chief Executive MIQ	MBIE
Brigadier Jim Bliss	Head of MIQ Operations	MBIE
Kristian Dunne	Operations Director MIQ	MBIE
Dave Brensell	Air Operations	MBIE
Christina Sophocleous-Jones	General Manager MIQ National Operations Services	MBIE
Rachael Shadbolt	Manager, Supplier Relationships	MBIE
Deborah Pathak	Prioritisation and Groups Manager	MBIE
Simon Russell	Manager, National Accommodation Planning	MBIE
Peter Johnson	General Manager MIQ Regional Operations Delivery	MBIE
Gareth Mason	MIQ Business Systems Manager	MBIE
Aaron Toatelegese	Senior ICT Lead – MIQ	MBIE
Erica Voss	National Manager, MIQ Intelligence, Data and Insights	MBIE
Ingrid Harder	Director, Office of the Deputy Chief Executive	MBIE
Lisa Agent	Head of People and Culture	MBIE
Andrew Milne	Associate Deputy Chief Executive	MBIE
James Johnson	Policy Manager MIQ	MBIE
Tess Ahern	Director MIQ Health Services	MBIE
Stacey Munro-Flynn	General Manager Engagement and Service Design	MBIE
Val Sim	Director Legal Services, Legal, Ethics and Privacy	MBIE
Greg Patchell	Deputy Chief Executive Immigration	MBIE
Te Rau Kupenga	Director – Maori, Operations Support	MBIE
Shayne Gray	General Manager, Service Quality and Assurance	MBIE
Michael Alp	General Manager Finance Systems and Controls	MBIE

Name	Title	Organisation
Rema Erueti	Relationship Manager	MBIE
WGCDR Ivan Green	ARIQCC Lead	MBIE
Kara Isaac	General Manager Policy	MBIE
John Callcut	Senior Project Manager	MBIE
Natesan Sabesan	Transition Analyst, Business Management	MBIE
Shona Meyrick	Group Manager, COVID-19 Border and Managed Isolation	Ministry of Health
Sue Gordon	Deputy Chief Executive COVID-19 Health System Response	Ministry of Health
Dr Caroline McElnay	Director of Public Health	Ministry of Health
Vicki Wright	DHB Lead	DHB
Group Captain Glenn Gowthorpe	Commander Joint Task Force 650.7 – Op PROTECT NZDF Support to the All-of-Government COVID-19 Response	New Zealand Defence Force
SQNLDR Stephen Ansell	Planning Lead	New Zealand Defence Force
FLTLT Alexander Tredrea	MIF Manager Grand Millennium	New Zealand Defence Force
LTCDR Robin Kuhn	MIF Operations Manager	New Zealand Defence Force
Superintendent Steve Kehoe.	Commander: Operation Mercy	New Zealand Police
Murray Breeze	National Manager Isolation, Quarantine, Repatriation	New Zealand Aviation Security Service
Iain Ganner	Regional Director of Sales and Marketing – New Zealand, Fiji and French Polynesia	Accor
Cath O'Brien	Senior Manager Regulatory Affairs – Government and Industry Affairs	Air New Zealand
Chris Lethbridge	Regional Manager New Zealand	Emirates

Privacy of natural persons

# Appendix 5 – Terms of Reference

MANAGED ISOLATION  
AND QUARANTINE

## Assessment of Managed Isolation & Quarantine

### Terms of Reference

18 January 2021



#### Purpose and Overview

The Chief Executive of the Ministry of Business, Innovation & Employment has commissioned an assessment of the Managed Isolation and Quarantine (MIQ) facilities and operating model.

MIQ is a unique business group; fluid, fast moving and with an unknown, although short, lifespan. It is currently operating effectively but having been established at pace in an environment of continuous change, now, at the six month mark, it would be useful to carry out an assessment of its functionality. This assessment will help MIQ to identify the challenges and opportunities it faces and its ability to address them.

The assessment will examine the end-to-end efficiency of the Operating Model, specifically the operational roles (cross agency) involved in the management of the facilities, front line, support and management functions. The intention is to identify practical recommendations for continuous improvement in the unique circumstances MIQ faces, and to help MIQ effectively manage risk and drive continuous improvement and quality of service.

It is to be undertaken by an external panel of at least two people, in consultation with the Ministry of Business Innovation and Employment (MBIE), New Zealand Defence Force (NZDF), Aviation Security (AVSEC), Ministry of Health (MOH), New Zealand Police (NZP), relevant participating District Health Boards (DHBs) and hotels. The panel will produce practical recommendations for continuous improvement in the fast paced, dynamic environment the COVID-19 pandemic has created.

## MANAGED ISOLATION AND QUARANTINE

### Background

- MIQ is an important part of New Zealand's elimination strategy. Since 9 April 2020, the majority of people arriving at New Zealand's border have been required to stay in MIQ for 14 days with very limited exceptions. This is required by orders made under the COVID-19 Public Health Response Act 2020 to protect the health and wellbeing of people in New Zealand and reduce the risk of COVID-19 entering the community.
- MIQ ensures cases that enter through the border are detected early and isolated from the community. MIQ enables continued, albeit limited, international mobility which supports economic, social and cultural outcomes.
- End-to-end management of our borders is an essential component of our COVID-19 response, and the Government needs to ensure that New Zealand has an MIQ system fit to manage COVID-19 in an effective way for up to two years. This includes secure funding for the continued operation of MIQ.
- Since its inception, MIQ has continued to refine and improve its operations and now includes:
  - operation of the facilities, up to 6,169 rooms
  - a booking and allocation system
  - processes to collect fees and consider waivers
  - clear exemptions and emergency allocation processes
  - emphasis on pastoral care for staff and residents.

### Operating Model

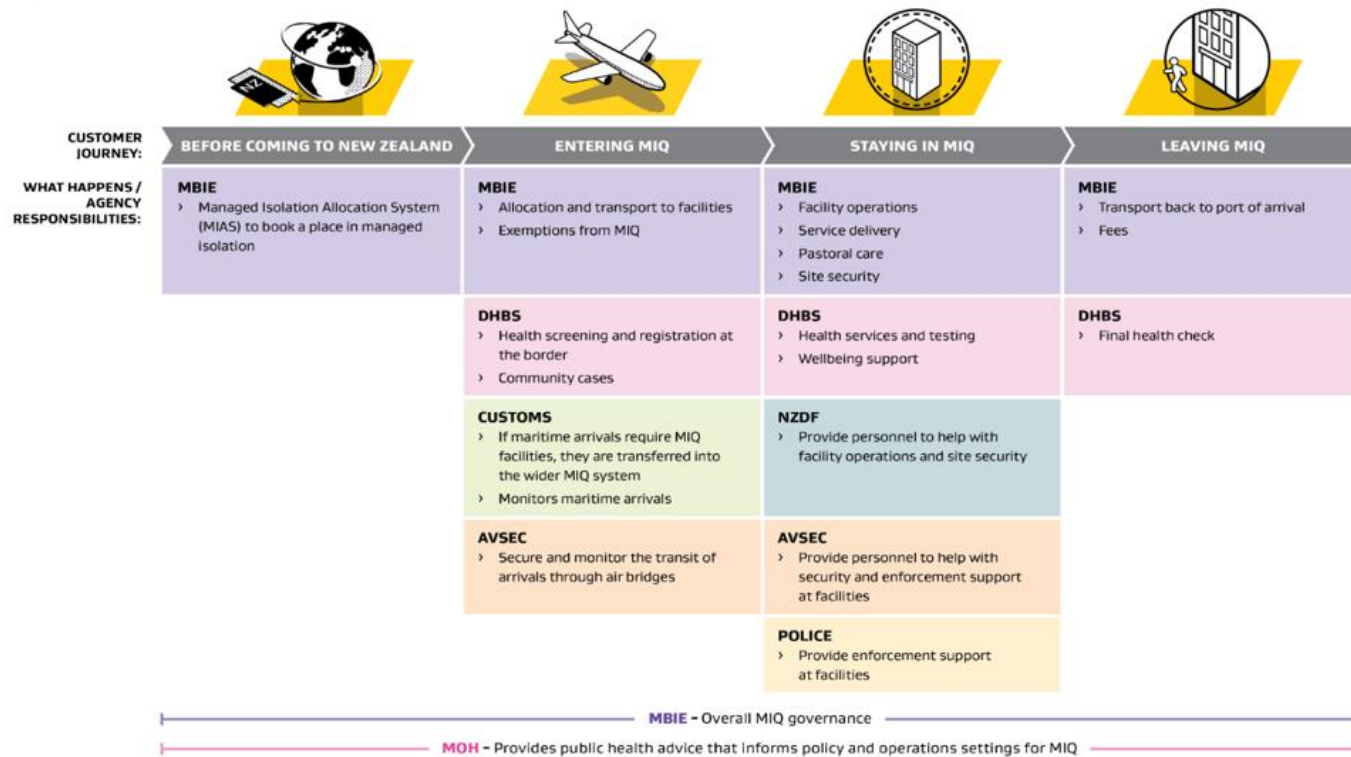
- The current operating model underpins the joint-agency delivery of MIQ. MBIE is responsible for the overall delivery of the MIQ operating model in line with public health guidelines.
- The MIQ operating model has continued to evolve. For example, officials are in the final stages of ensuring there are standard operating models across all 32 facilities, and that the customer facing elements of the model are effective and timely with simple complaints and feedback processes.
- The MIQ operating model leverages the expertise and capability of other agencies to support public health outcomes. NZDF, AVSEC, Police and Customs provide highly skilled services with a level of confidence that cannot easily be duplicated. MOH and DHBs are critical partners in the delivery of MIQ health services. This collaborative approach ensures MIQ residents have a safe and comprehensive end-to-end MIQ experience that New Zealanders can have confidence in.

## MANAGED ISOLATION AND QUARANTINE

- A high level view of the MIQ operating model is in the diagram below.

## MANAGED ISOLATION AND QUARANTINE

# MIQ Operating Model



## MANAGED ISOLATION AND QUARANTINE

### The MIQ operating model is designed to support:

- Suppression of transmission of COVID-19 in New Zealand as strong border control processes are maintained
- Appropriate resourcing of facilities, with the security, pastoral care and wrap around services necessary to ensure residents' stays are comfortable and compliant with the New Zealand Bill of Rights Act 1990
- Better informed decision making through coordination of all agencies involved and establishment of clear lines of accountability.

### Scope

The assessment is to be undertaken by an external panel consisting of up to three people, in consultation with the Ministry of Business Innovation and Employment, New Zealand Defence Force, AVSEC, MOH, NZP and relevant District Health Boards. It will produce practical recommendations for continuous improvement in the unique circumstances MIQ faces.

The assessment will enquire into, report on and identify opportunities for continued improvement, which are appropriate given the short-term, fast-paced, high-risk environment in which MIQ operates. It will examine the following areas:

- Efficiency of the Operating Model
- Services prior to arrival (allocations, communications to returnees)
- Services in MIQFs (medical, testing, mental health, vulnerable people, unaccompanied minors, social services, cultural awareness, financial support)
- Staff welfare
- Logistics arrangements
- Administrative and contractual arrangements in place between government agencies, hotel operators and [third party](#) service providers
- The operational framework and supporting operational policies, protocols and procedures in place
- Information sharing
- Enforcement and compliance powers
- Te Tiriti o Waitangi considerations
- IT systems and support
- Any other matters necessary to satisfactorily resolve the matters set out above

## MANAGED ISOLATION AND QUARANTINE

### Out of Scope

This assessment will not examine:

A) Activities undertaken by:

- the Ministry of Health;
- Customs; or
- Police;

outside of the MIQ facilities and MIQ liaison officer roles.

B) Policy Settings

C) Public Health Settings

D) Governance structures.

### Stakeholders

This assessment will involve the following agencies and organisations:

- Ministry of Business, Innovation and Employment (MBIE)
- Aviation Security (AVSEC)
- New Zealand Defence Force (NZDF)
- New Zealand Police (NZP)
- District Health Boards (DHBs)
- Ministry of Health (MOH)
- Engagement with Iwi stakeholders
- Strategic private sector partners, such as hotels and transport providers.

### Deliverables and Timing

The assessment will be undertaken by a panel of external subject matter experts familiar with the machinery of government and appropriate public and private sector experience at an operational level.

- A draft report for comment will be available no later than four weeks from the date of commencement.

## MANAGED ISOLATION AND QUARANTINE

- The draft report will be provided to the business owner for comment and feedback before it is finalised. The business owner will share the draft report with key participating stakeholders and relevant agencies including MBIE, AVSEC, NZDF, MOH, DHB.
- A final report to the Chief Executive of MBIE presenting the findings, including an assessment of the adequacy of the proposed/current arrangements, the likely effectiveness of their application, and any areas of improvement is required to be issued no later than two weeks after the draft report.
- An appropriate communication plan will be put in place for any subsequent dissemination of the report and its findings.

MIQ Service Quality and Assurance will act as the point of the contact for the panel to assist with facilitating interviews and documentation reviews.

### Key Contacts

The sponsor is Carolyn Tremain, Secretary and Chief Executive of MBIE.

The key contacts are Megan Main, Deputy Secretary. MIQ (Business Owner), and Jim Bliss, Head of MIQ.

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Carolyn Tremain

Secretary and Chief Executive, Ministry of Business, Innovation and Employment

Date:



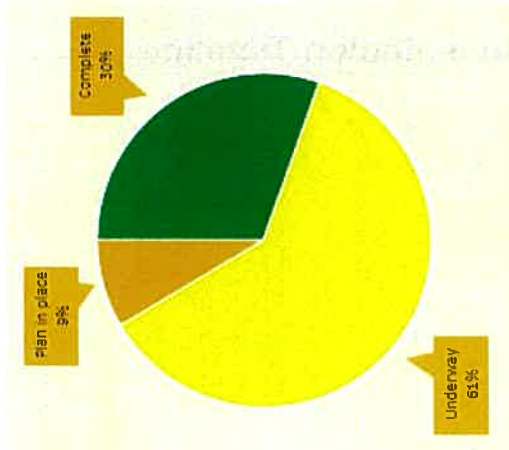
## Annex Two: Recommendation Assessment Rating

This table shows the current status of the 82 recommendations of the Rapid Assessment of MIQ.

### Recommendation Assessment Rating

The recommendations have been assessed against the following ratings:

Current State Rating	No. of Recs.	% of Recs.	Rating Description
Complete	25	30%	All activities are complete, and the recommendation is resolved.
Underway	50	61%	Activities are underway and a plan is in place to resolve the recommendation.
Plan in place	7	9%	No activities have currently been undertaken but a plan is in place to resolve the recommendation.
To be initiated	0	0%	No activity has been currently undertaken, the recommendation requires a plan to resolve it.
<b>TOTAL</b>	n/a	82	100%



## **Annex three: Stakeholder Consultation Timeline**

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## COMMUNICATIONS RUNSHEET ACTION PLAN

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### Recommended key dates and deliverables

Date/ Time	Event/action	Audience	Person responsible	Status/ comments
3 <sup>rd</sup> May	Begin liaising with MoH, to get their input into the response and key messages.	MoH	Shona Meyrick	Privacy
One week prior to release	Comms plan, including MIQ PR, MIQ response to 8 priority recommendations, key messages, and Q+As.	Minister's Office	MIQ Comms	
Five days prior to release	Email to RIQ leaders. They pass information onto relevant parts of their team	RIQ leaders/staff	MIQ Comms/Regional Comms	
Three days prior to release	Report and comms plan shared.	DPMC	Fiona Weightman/MIQ Comms	
Three days prior to release	Send report with a cover letter from Megan Main	Covid-19 Response Advisory Group	Megan Main's office	
Three days prior to release	Heads up	DHBs	MoH/MIQ comms	
Three days prior to release	Heads up	NZDF	Jim Bliss's office	



Three days prior to release	Heads up	Airlines	Andy Milne	
Three days prior to release	Heads up	Satellite	Christina Sophocleous-Jones	
Three days prior to release	Heads up	Hotels	Rachael Shadbolt	
Three days prior to release	Heads up	Iwi	Sam Bishara	
Day of release TBC	Intranet news story, MIQ staff email from Megan Main/Jim Bliss before it is released publicly (suggest 9am)	MIQ Staff	Anna Susmilch	
(date tbc)  10 am report and response goes live on website  10am – PR (suggest sending out under embargo at 9am)  1pm – standup	Proactive release	Public and Media	MIQ Comms	