

Aide-Mémoire

COVID-19: health information system improvements

Date due to MO: 2 March 2021 **Action required by:** 2 March 2021

Security level: IN CONFIDENCE **Health Report number:** 20210505

To: Hon Dr Ayesha Verrall, Associate Minister of Health

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Details of meeting: 2 March 2021

**Purpose of meeting/
proposal:** Newsroom interview on COVID-19 and health information system improvements



Shayne Hunter
Deputy Director-General
Data and Digital

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Talking points on COVID-19: health information system improvements

Health Information Systems Improvements

- The Ministry of Health began work to improve Population Health services with the National Bowel Screening Platform (NBSP). The NBSP went live in the middle of 2019. As the platform had been implemented at the time of the pandemic beginning and we had access to our partners who assisted us to implement it for Bowel Screening, we were well positioned to support the COVID-19 response.
- The Ministry has been able to re-use and extend over the course of the pandemic to manage the Contact Tracing process, manage Border Testing and now manage the COVID-19 Vaccination process.
- Underpinning this is the Ministry's Digital Health Strategic Framework. This highlights the future of health technology and the need to support the development of data interoperability and the building of a health technology eco-system.
- Of primary importance in the digital strategy is the growing opportunity that "digital" offers. This for health is very different to traditional "data capture" systems and digital has allowed the Ministry and sector to focus on technologies and approaches that would not have been possible even three years ago (e.g. speed – using agile working and consumer focused applications such as NZ COVID Tracer).
- The other key part of this is the development of the data platform that supports the delivery of the COVID-19 response. Using platforms has enabled us to provide unprecedented data for the health system, government and the public, in a secure way.
- With platforms, a data layer, continuous delivery and working in an agile way has meant that we can begin with a "Minimum Viable Product" and then improve it. This means we can start with a base operational system and add to it, rather take a traditional IT approach and try to deliver (sometimes unsuccessfully) all the value in one go after a long gestation period.
- The Ministry is very aware of how additional needs are accommodated as the pandemic response continues and is working carefully to add to the ecosystem where required, minimising overlap, and seeking to ensure that we can get the best value from our investments.

National Contact Tracing System (NCTS)

- This system records the interactions between individuals identified as cases, close contacts or casual contacts and Public Health Units (PHUs) or the Ministry of Health.
- There have been more than 21 releases of this system since the initial version developed in March 2020 (version 1 was built and released in 1 week). Key aspects include:
 - standardising location identifiers with Global Location Numbers (GLNs) in QR codes to speed contact tracing
 - having the ability to easily create connections between cases and contacts

- having the ability to manage workloads across all PHUs in the country
- direct links to ESR's epiSurv system and to test results
- data to support extensive reporting and analytics.

Border Management and Workforce Testing Register

- The NCTS was extended to register those who arrive back in New Zealand from overseas and enter Managed Isolation and Quarantine (MIQ). Added to this was the Border Workforce Testing Register.
- It is linked to NCTS to allow follow up out of MIQ back into the community, and reuses data models and concepts from NCTS.

COVID-19 Immunisation Register

- The COVID-19 Immunisation Register (CIR) records every COVID-19 vaccination. The system is being continually built upon and is likely to eventually become the National Immunisation Solution (NIS) which will track all childhood and adult vaccinations in New Zealand.
- In development is the consumer channel that will allow users to book/manage the vaccination process, see their vaccination history and should this be needed, create vaccination

NZ COVID Tracer

- Allows New Zealanders to speed up contact tracing by collecting where they have been (QR codes) and who they have been in contact with (Bluetooth). Allows New Zealanders to control the upload of their data to support contact tracers.
- The Ministry implemented a QR code poster service to supplement the original version created by MBIE.
- Provides New Zealanders with alerts if they have been in contact with COVID-19 – this helps to speed up the contact tracing process.

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- Allows health workers to receive updated information from the Ministry on what is happening in the COVID-19 response. Is in the app store, further development is paused.

MIQ Patient Management System

- Many people who come back into New Zealand through MIQ have other health needs. The Ministry has been rolling out a clinical records system that allows health professionals on site to undertake health assessments, document health interventions and then send this information on the person's registered General Practitioner once they leave MIQ.

Testing and Results Management

- As a part of MIQ there is a need to capture clinical information about PCR tests for transport to the lab and then results need to be returned to the MIQ Patient Management System. This is currently being rolled out to all MIQ facilities and is being developed to support the Community Testing Centre (CTCs) processes in the Auckland region. It is expected that this when fully implemented will have a large impact on the waiting times at CTCs.

Data and Analytics

- A data and analytics platform has been developed to support COVID-19. It supports the Ministries surveillance efforts and enables the Ministry to share a national view of COVID-19 insights and data with a variety of Health sector stakeholders.
- This platform has reduced the demands on DHBs for their own reporting and analytics.
- This platform established a base for extension to other communicable diseases and to provide an early warning and surveillance response system.

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