



# Government Digital Services aide memoire

Hon Kris Faafoi  
Minister for Government Digital Services

Title: ***Using the CovidCard to improve contact tracing* – information to support you at the Cabinet Social Wellbeing Committee meeting**

Date: 28 July 2020

## Key issues

Your office has confirmed your oral item of the draft Cabinet paper, *Using the CovidCard to improve contact tracing*.

This aide memoire provides you with information and suggested talking points to support you at the Cabinet Social Wellbeing Committee meeting on Wednesday, 29 July 2020 at 9.30am.

## Action sought

**Note** the contents of this aide memoire;  
**Note** the draft Cabinet paper *Using the CovidCard to improve contact tracing (Appendix A)* which is scheduled to be considered by Cabinet on Monday 3 August 2020;  
**Note** the suggested talking points (**Appendix B**) to support you with your oral item at the Cabinet Social Wellbeing Committee meeting on Wednesday 29 July 2020; and  
**Note** the supporting Q&As (**Appendix C**).

## Timeframe

By 29 July 2020

Contact for telephone discussions (if required)

Name	Position	Direct phone line	After hours phone	Suggested 1 <sup>st</sup> contact
Nigel Prince	GCDO COVID-19 Response Lead	9(2)(a)	9(2)(a)	✓
Sela Finau	Policy Manager, Policy Group	9(2)(a)	9(2)(a)	

Return electronic document to:	Jasmin Chapman, 9(2)(a)
Cohesion reference	4UAZY7VS6QRJ-168030080-1084
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## Purpose

1. Your office has confirmed your oral item on the draft Cabinet paper *Using the CovidCard to improve contact tracing*. This aide memoire provides you with information and suggested talking points to support you at the Cabinet Social Wellbeing Committee (SWC) meeting on Wednesday, 29 July 2020 at 9.30am.
2. Attached as **Appendix A** is the draft Cabinet *Using the CovidCard to improve contact tracing* paper as at 3.00pm Tuesday 28 July 2020. **Appendix B** provides you with suggested talking points for your discussion at SWC. Q&As are also provided as **Appendix C**.

## Background

3. Effective contact tracing is a critical component of the strategy to isolate COVID-19 in New Zealand, by identifying close contacts, isolating them quickly, and stopping the spread of the virus. Digital technology can complement manual contact tracing by speeding up the process, filling in memory gaps, and recording contact with strangers. It could also allow contact tracers to access contact information more rapidly, improving the chances of quickly identifying and isolating potential cases of COVID-19.
4. On 20 April 2020, Cabinet noted that officials are assessing a Bluetooth-enabled card to support contact tracing and will report back to the Minister of Finance, the Minister of Internal Affairs, the Minister of Health, and the Minister for Government Digital Services [CAB-20-MIN-0175 refers]. On 13 May 2020, the Minister of Justice was added to this group and SWC noted that a report-back to Cabinet on the consumer application Bluetooth assessment, and the Bluetooth-enabled card, was scheduled for June 2020 [SWC-20-MIN-0043 refers].
5. The paper seeks Cabinet agreement to proceed with the next phase of the CovidCard, including further trials, as part of keeping technology options open to improve contact tracing. If Cabinet agrees to this recommendation, Cabinet would be provided advice following the further trial by the Minister of Health and the Minister for Government Digital Services, after the completion of the next phase of work, on whether to proceed with a full national deployment option for CovidCard and alternative options for deployment, or use of other developing technologies.

## Cabinet paper summary

### ***One simple and effective technology to improve contact tracing has not been identified around the world***

6. Many countries around the world have tested or developed technologies to support contact tracing for COVID-19. These technologies are mostly smartphone apps. Officials have not identified a country that has developed one simple and effective technology for contact tracing.
7. The NZ COVID Tracer app has had good initial uptake and adds to the accuracy of the National Health Index data, yet it relies on people scanning QR codes. The Ministry of Health is planning to undertake a trial of an app based on the Apple and Google Exposure Notification Framework technology with the NZ COVID Tracer app.

***The Public Private Partnership group produced a report recommending the Government consider deploying the CovidCard***

8. As directed by Cabinet, the Government Chief Digital Officer (GCDO) has worked with the Public Private Partnership group (PPP) to investigate an alternative to Bluetooth mobile apps, the Bluetooth-enabled CovidCard. The PPP is a group of private sector volunteers and contractors and is not a formal entity.
9. The PPP produced a report recommending the Government consider deploying the Bluetooth-enabled CovidCard to improve contact tracing. Initial assessments have shown that the card works technically, but there are issues with the card's security and false positives (when someone is incorrectly classified as a close contact) that require further investigation.
10. The report states the CovidCard would take six months to deploy from a decision to do so, at a cost of \$98.5 million in the first year and \$64 million in the second year. These are indicative costings and do not account for the funding of policy, regulatory or enforcement activity associated with a nationally rolled out CovidCard.

***The CovidCard has potential advantages, as well as disadvantages***

11. The CovidCard does not have any connections to the internet or mobile networks. From a digital inclusion perspective, the cards also do not require any skills to use or for anyone to already have a device. However, this technology is expensive, largely unproven in real world environments, and it is not certain if uptake of the cards would be better than any other technology solution.

***Initial assessments have shown that the CovidCard works technically***

12. Following the PPP's report, the GCDO led cross-agency work to independently assess the CovidCard and the benefits of the CovidCard for contact tracing. Results from these assessments are promising but there are issues that require further investigation, including the CovidCard's security and the extent of false positives.
13. Independent modelling of the epidemiological value of the CovidCard was completed on 24 July 2020. The modelling reported that Bluetooth apps and card-based proximity detection systems perform similarly at comparable levels of uptake, but other factors such as usability need to be considered.

***There are wider issues with the deployment of the CovidCard or another technology solution***

14. There are broader issues to consider about the deployment of technology solutions. The success of any technology solution requires strategic policy decisions to address social licence and public uptake of the contact tracing technologies. Additionally, it has not been addressed where the CovidCard would fit in with the wider context of New Zealand's contact tracing system and plans for using technology to improve contact tracing.

***We suggest that you propose that the CovidCard is investigated and trialled further***

15. In order to keep multiple technology options open to improve contact tracing, we suggest you propose to proceed with a field trial of the CovidCard. This will also involve research into public sentiment about using technologies to improve contact tracing. A tentative site for the trial has been identified in the Rotorua region, pending consultation with the Caring for Communities workstream as part of the All-of-

Government COVID-19 response. Your expectation is that this would be completed by early October 2020, subject to PPP engagement.

16. The findings of this trial will be reported back to Cabinet to inform any decision on whether to deploy CovidCard as part of New Zealand's contact tracing system.
17. There is uncertainty about the PPP's continued involvement under this approach. Without the PPP, Government would need to bring in people with the right skills to facilitate the trial, which would impact timeframes, costings and outcome. The Minister of Health and the Minister for Government Digital Services will engage with the PPP and confirm next steps.

***New arrangements would be needed for the next phase of work on the CovidCard***

18. The GCDO has worked with the PPP on the proof of concept for the CovidCard. It is important to continue to develop the CovidCard design while determining the value it adds to the objectives of contract tracing and how it could be integrated into the wider contact tracing system. Therefore, the next phase will be jointly led by the GCDO and the Ministry of Health.

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***Financial implications***

20. The Ministry of Health and the Department of Internal Affairs for the GCDO have reviewed options for reprioritising funding from within the respective agencies' 2020/21 baselines.
21. Subject to Cabinet agreement, the Ministry of Health will require additional funding of \$1 million for 2020/21. This would require a drawdown of \$1 million from the Ministry of Health COVID-19 Contact Tracing – Tagged Contingency.

## Recommendations

22. We recommend that you:

- a) **note** the contents of this aide memoire;
- b) **note** the draft Cabinet paper *Using the CovidCard to improve contact tracing (Appendix A)* which is scheduled to be considered by Cabinet on Monday 3 August 2020;
- c) **Note** the suggested talking points (**Appendix B**) to support you with your oral item at the Cabinet Social Wellbeing Committee meeting on Wednesday 29 July 2020; and
- d) **note** the supporting Q&As (**Appendix C**).



Ann-Marie Cavanagh  
DCE, Digital Public Service

Hon Kris Fafoi  
Minister for Government Digital Services

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**Appendix A: Draft Cabinet Paper *Using the CovidCard to Improve Contact Tracing***

## **Appendix B: Suggested talking points for the Cabinet Social Wellbeing Committee meeting on Wednesday, 29 July 2020**

### ***Digital technologies can support contact tracing***

1. I am seeking support from Cabinet to begin further testing and a field trial of the CovidCard to support manual contact tracing.
2. This paper seeks agreement to draw down \$1.000 million from the COVID-19 Contact Tracing – Tagged Contingency,
3. Effective contact tracing is a critical component of the strategy to eliminate COVID-19 in New Zealand.
4. Digital technologies can complement manual contact tracing by speeding up the process, filling memory gaps, and recording contact with strangers that would have been missed in the current process.
5. In April, Cabinet noted that the GCDO and Public Private Partnerships group were assessing a Bluetooth-enabled card, called the CovidCard to assist with contact tracing in New Zealand.

### ***Technical overview***

6. This card uses Bluetooth technology to record when it into contact with another card that is within two metres for 15 minutes.
7. The CovidCard does not have any connections to the internet, mobile networks, or GPS, requires no skills to use and does not store personal information. The close contact data on the cards is kept for 21 days and after that time it is deleted.

### ***The card has had some initial testing***

8. The Public Private Partnership has conducted technical trials of the card as well as a small trial in Nelson Hospital. They delivered a report which found the cards to be technically sound and provide epidemiological benefit.
9. This report has been reviewed by the Defence Technology Agency agreed the card does work technically, but also noted it needed more testing.
10. Independent modelling of the epidemiological value of the CovidCard was completed on 24 July 2020. The modelling reported that Bluetooth apps and card-based proximity detection systems perform similarly at comparable levels of uptake, but other factors such as usability need to be considered.
11. The GCDO is also working with the Ministry of Health's contact tracing experts to investigate how the data from the CovidCard can add value to the existing contact tracing approach. The next step would be to jointly work with Public
12. While the card does work technically, we do not know how the public will accept the card or how well it would perform in a real-world scenario.

### ***Further trials of the cards are required***

13. Further trials would include a community trial in Rotorua region with 250-300 cards, further technical testing, and market research.

14. This research will allow us to understand how the cards would work in a real-world scenario, if they are compatible with the contact tracing system, and if the public would accept and use the cards if they were rolled out.

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16. The Minister of Health and I will work with the Public Private Partnership to confirm next steps.

***Report back***

17. The Minister of Health and I will also report back to Cabinet following the trial to provide advice on whether to proceed with a full national deployment of the CovidCard.



## Appendix C: Q&As to support you at the Cabinet Social Wellbeing Committee meeting on Wednesday, 29 July 2020

### *Technical questions*

1. **Will the card work with NZ COVID Tracer?** No, the card as designed by the PPP, would not have the functionality to interact with any phone app, including NZ COVID Tracer.
2. **Does the card collect personal data?** No, the card only stores the encrypted serial numbers of other cards it comes into contact with. All contact information for the cards are stored on a separate government database.
3. **Can the cards be updated?** Once the cards have been deployed, they cannot receive updates.
4. **How long will the battery last?** It is estimated that the battery would last about 12 months, this could vary from card to card, depending how often it used. The battery is not replaceable so a new card would need to be issued once the battery ran out.
5. **Is the data secure?** The data on the cards will be encrypted. The Defence Technology Agency have reviewed the security of the cards and believe it to be secure. Ensuring data security will also be part of the further technical tests.
6. **How is this different to an app?** The CovidCard does not require any skills or a device to use or require any interaction with it, which makes it very accessible. Some apps, such as NZ COVID Tracer require people to scan QR codes, the cards would only require you to wear them. However, unlike an app this is a more pre-emptive option and would have a significantly longer time to roll out than an app. The CovidCard would take 6 months to rollout nationwide.

### *Trial questions*

7. **Why does the card need more testing?** While we believe the card will work from the technical perspective, we are not sure how it would work in a real-world scenario. We don't know if people would want to wear, how often people forget the card, how accurate it is if worn in a pocket. A real-world trial and market research will help us to understand how the cards could perform if they were launched nationwide.
8. **Does a trial mean we are committed to rolling out the cards?** No, the Government to not out the cards after the trial. The Minister for Health and I will provide advice on whether the CovidCard should be deployed.
9. **Where will the trial be?** The proposed location is the Rotorua region. Some regions already have governance structures, including established leadership groups which operated extremely well before and through COVID-19, some emerged during COVID-19 and others have reached out for help connecting to different leaders within their region.
10. **Why Rotorua?** Through the COVID19 engagement, this region has the knowledge, the understanding and trust to address the practical questions of proposed COVID options. The regional leadership group membership includes Council, all iwi, MSD, Police, and 2 chairs of DHBs. Goodwill will be achieved through involving this regional leadership group to be part of the solution - by identifying who in their communities could test the COVID card.

11. **How long will the trial go for?** After a period of community consultation, the trial is planned to take place over seven to ten days over a two-week period.
12. **How will the trial work?** Each participant would receive a card for that seven to ten day period, which they will use over that trial period.. A few participants would be randomly selected to be positive cases to test the processes around collected the data from the cards and translating it into information to assist contact tracers.
13. **Why not do a larger trial?** The trial is proposed to be for 250 to 300 participants in order to keep the trial manageable.
14. **What about a trial in a isolation facility?** That is possible, and the Ministry of Health and the GCDO will consider it during trial planning.

### ***Operational questions***

15. **Why should the Ministry of Health now take the lead with the GCDO?** The Public Private Partnership and the GCDO have led the work to understand if the cards would work from a technical perspective. However, any technology solution that is adopted will have to work with the wider contact tracing system and the Ministry of Health is best placed to make that assessment with the assistance of the GCDO and Public Private Partnership.
16. **How long would it take to complete a nationwide rollout?** The PPP estimates that it would take roughly 6 months to manufacture and send out the cards to everyone in New Zealand.
17. **Would the cards be mandatory?** At this stage I am not recommending that the cards be mandatory. While this could increase uptake, it has significant policy, human rights, and Te Tiriti challenges.

### ***Health efficacy of the cards***

18. **Would the cards prevent another outbreak?** It is unlikely that the cards would prevent another outbreak of COVID-19. The cards would more likely assist with containing an outbreak and improving the manual contact tracing process.
19. **Could the cards be targeted at digitally disadvantaged groups?** From a digital inclusion perspective, the cards also do not require any skills to use or for anyone to already have a device. This means the cards, unlike some other technologies, are accessible to everyone. Officials have worked with the All-of-Government Caring for Communities workstream to inform the trial location.
20. **Could the cards be rolled out to a target group ?** They could, but a more targeted approach is likely to be less effective at improving contact tracing. For the cards to be effective a strong uptake is required so that the cards are more likely to save close contacts. If the cards were only given to the elderly in care facilities, for example there would be no additional benefit over the current contact tracing process unless the staff and visitors had also been using a CovidCard.

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***Public perceptions of the CovidCard***

22. **What are public perceptions of the CovidCard?** Market research is required to fully understand the public's appetite for the CovidCard. The All-of-Government insights research suggests that any new contact tracing initiatives in the current environment would be hindered by a low perceived threat, misinformation and privacy concerns.
23. **How could public perceptions of the Card be increased?** The All-Of-Government insights research suggests that the CovidCard be established as a social norm early on as well as widespread transparent messaging regarding contact tracing to reduce misinformation.