



**T H E M C K E L L I N S T I T U T E**

**The Missing Link:**  
How Pharmacies Can Accelerate  
Australia's Vaccine Roll-Out

**July 2021**

## About the McKell Institute

The McKell Institute is an independent, not-for-profit research organisation dedicated to advancing practical policy solutions to contemporary issues.

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## About this Report

The McKell Institute *Insights Reports* provide a quick analysis of emerging public policy issues.

The Australian COVID-19 vaccination program is the most significant public policy challenge in Australia in 2021. The health and prosperity of Australians rely on the success of the program.

This report seeks to identify and quantify deficiencies in the vaccination program to support the efficient and effective vaccination of the Australian population against COVID-19.

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## Key Findings

1. Australia has a smaller population fully vaccinated than any other country in the OECD.
2. As of 12 July 2021, all State and Territory vaccination programs were exceeding their dosage targets as set out in the March 2021 Australian Government COVID-19 Vaccination Roadmap (The Roadmap). The Northern Territory, Tasmania, ACT and Victoria have doubled their targets.
3. As of 12 July 2021, Commonwealth-led 'Aged Care and Disability Care' program as well as the 'Primary Care' program had reached just 55 and 57 per cent of their targets respectively.
4. The Primary Care vaccination program is scheduled to make the largest contribution towards vaccinating the Australian population. Any deficiencies in the Primary Care program have an outsized impact on whether Australia will reach herd immunity.
5. The number of General Practitioners participating in the COVID-19 Vaccination program exceeds the targets set in the Roadmap.
6. According to the original Roadmap 2,000 pharmacies should have been administering 200,000 doses per week from 7 June 2021. As of 12 July 2021, only 65 pharmacies were online to administer COVID-19 vaccines.
7. Approximately 4,000 pharmacies have been assessed by the Pharmacy Programs Administrator as suitable for the COVID-19 Vaccination program. To date, all pharmacy participation in the vaccine roll-out has been limited to trials. More pharmacy participation in the roll-out has been announced but, as of 12 July, are yet to be administering vaccines.
8. According to the COVID-19 Vaccination Allocation Horizons plan (11 July 2021), there is a sufficient supply of vaccines for the approximately 4,000 suitable pharmacies to participate in the COVID-19 vaccination program.
9. Utilising approximately 4,000 pharmacies would allow Australia to achieve its vaccination targets 41–56 days faster than in the current base case scenario (65 pharmacies online).

Scenario	Days to vaccinate 65 per cent of the eligible population	Days to vaccinate 80 per cent of the eligible population
Current pharmacies (65 pharmacies active)	136	184
2,000 pharmacies	112	151
4,000 pharmacies	95	128

10. The NSW Premier has said that 80 per cent of the population is required to be vaccinated to end state lockdowns and possibly open international borders. Reaching this point 56 days quicker would avoid \$12.3 billion in economic costs.
11. Deficiencies were also identified in the Aged Care and Disability Care vaccination program. This program was scheduled to end in September 2021 but has recently been extended. Further clarity is needed to ensure the timely vaccination of residents and workers in Aged Care and Disability Care.
- 12. Recommendation: That all Australian Governments permit pharmacies within their jurisdiction to administer any COVID-19 vaccine approved by the Therapeutic Goods Administration (TGA). The Commonwealth Government should include pharmacies in the administration of new COVID-19 vaccines in accordance with the Roadmap.**
- 13. Recommendation: The Commonwealth Government should immediately allocate vaccines to at least 2,000 pharmacies in locations with a high risk of infection and or poor access to other vaccination sites. The Government should engage all 4,000 approved pharmacies in the vaccine roll-out as soon as possible.**
- 14. Recommendation: The number of participating Aboriginal Controlled Community Health Services is below the target level. The Commonwealth should work closely with Aboriginal peak bodies to improve the roll-out among this priority cohort.**

## Summary

As of 12 July 2021, Australia had fully vaccinated 2,400,432 residents against COVID-19, equivalent to 11.64 per cent of the total population 16 years and over.<sup>1</sup> The rate of vaccination in Australia has been slower than in other comparable countries, including Israel, the United Kingdom, the United States, Germany and Canada. Australia is ranked last out of the 38 OECD nations in the percentage of the population who have been fully vaccinated.<sup>2</sup>

This report provides a background to Australia's vaccine roll-out strategy and places the current pace of the roll-out into context with the broader strategy, and the newly released *National Plan to Transition Australia's National COVID Response*.

Part 2 of the report analyses the core reasons for the delay. This includes an analysis of the different roll-out speeds of the Commonwealth and State/Territory vaccination programs. It analyses the delivery methods individually, and in doing so finds a major lag in the delivery of Primary Care vaccinations. It also examines issues of supply, before ultimately concluding that community pharmacies represent untapped potential.

Part 3 provides a model of the benefit of adding pharmacies into the delivery mix. It compares two scenarios, the first based on the Commonwealth's original plan, and the second based on utilising all suitable pharmacies. It ultimately finds that the utilisation of pharmacies can significantly bring forward the dates of reaching herd immunity targets. Further, it finds that a sped-up roll-out will bring significant economic benefits to Australia.

## 1. Background

Earlier this year, the Federal Government released the [COVID-19 Vaccine Roll-out Roadmap](#) (The Roadmap). The Roadmap predicted significant increases in the supply of vaccines as the months went on, with nearly 30 million doses to have been supplied to Australia by July 2021. Understandably, as such supply forecasts have not been met, the vaccine roll-out has lagged.

The Roadmap includes two Commonwealth Government programs. The Aged Care and Disability Care program is designed to prioritise these vulnerable cohorts. The Primary Care Vaccination Plan is designed to achieve mass vaccination and is broken down by delivery method:

- General Practitioner led Respiratory Clinics (GPRCs)
- Aboriginal Community Controlled Health Services (ACCHS)
- General practices (GP)
- Community pharmacies (from Phase 2a)

The Commonwealth programs are complemented by the addition of state and territory vaccination programs.

The Roadmap ramps up as vaccine supply becomes available and was expected to reach maturity by 7 June 2021. From then, more than 1 million doses should be administered per week. The actual doses administered have fallen short of this target.<sup>3</sup>

### McKell's previous work on the vaccine roll-out

In April 2021, The McKell Institute released *Counting the Cost of Australia's Delayed Vaccine Roll-out: Part One*. This report compared the speed of the vaccine roll-out with that of other jurisdictions. Ultimately it concluded that without a substantial increase in the speed of the vaccine roll-out, Australia would face billions of dollars in economic costs due to the ongoing possibility of lockdowns.

Further, in May 2021, The McKell Institute released the second part of the report, finding that there will be additional economic costs of the delay to the vaccine roll-out that result from the ongoing closure of international borders.

In early July 2021, The McKell Institute put forward its first policy proposal to increase the speed of the vaccination roll-out, by offering employees paid vaccination leave. Since the release of that report, major employers such as Wesfarmers have announced that they will be offering paid vaccination leave. We welcome their positive approach to employee and community safety.

## The Government's four-phase strategy

On Friday 2 July 2021, the National Cabinet agreed to formulate a National Plan to Transition Australia's National COVID Response, consisting of the following phases.

Table 1.1 National Plan to Transition Australia's National COVID Response

<b>A. Current Phase – vaccine, prepare and pilot</b>	Continue to suppress the virus for the purpose of minimising community transmission.
<b>B. Post Vaccination Phase</b>	Seek to minimise serious illness, hospitalisation and fatality as a result of COVID-19.
<b>C. Consolidation Phase</b>	Manage COVID-19 consistent with public health management of other infectious diseases.
<b>D. Final Phase</b>	Manage COVID-19 consistent with public health management of other infectious diseases [This stage expanded on Stage C by including uncapped inbound travel subject to vaccination status or testing on arrival].

*Source: Prime Minister's Media Statement, 2 July 2021<sup>4</sup>*

The Prime Minister has said that each stage of this plan would be 'triggered by the achievement of vaccination thresholds expressed as a percentage of the eligible population (16+), based on the scientific modelling currently being conducted for the COVID-19 Risk Analysis and Response Task Force'.<sup>5</sup>

Without having specified the vaccination thresholds, it is difficult to predict when each phase will be reached. However, the Premier of NSW, Gladys Berejiklian, has stated that the threshold should be 80 per cent.<sup>6</sup> Meanwhile, Federal Liberal MPs Tim Wilson and Jason Falinski have suggested a rate of 60 per cent would enable international travel to recommence.<sup>7</sup> The Commonwealth Government has not officially offered a target.

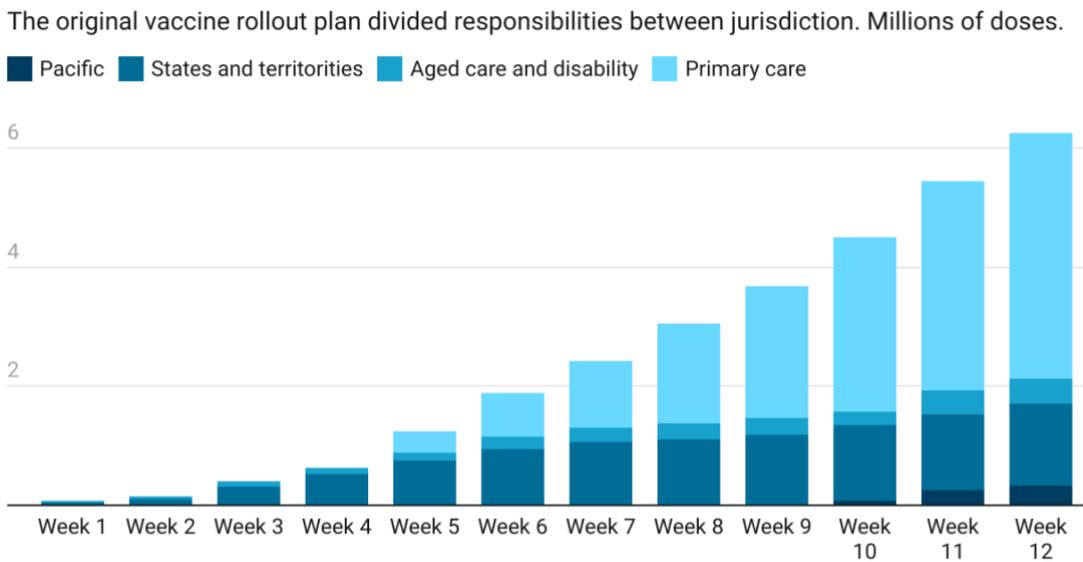
The United Kingdom is easing restrictions with around 65 per cent of its population aged 18 and over fully vaccinated. Many parts of the United States are also easing restrictions with vaccination rates lower than that. This isn't to say that we should follow these nations, but that there are widely differing views of what Australia's targets should be. Expert estimates range between 60 and 90 per cent.<sup>8</sup>

## 2. What is holding back Australia’s rate of vaccination?

### The speed of the vaccine roll-out has varied between jurisdictions

The Australian vaccination program began on 22 February 2021. Responsibilities were divided by jurisdiction. State and Territory governments delivering vaccines through hospitals and vaccination hubs while the Commonwealth was responsible for vaccinations through the Aged Care & Disability Care program and the Primary Care program.

**Figure 2.1 The original vaccine roll-out plan (March 2021)**



Source: Department of Health • Created with Datawrapper

Based on this Roadmap the States and Territories should have provided 2.4 million doses while the Commonwealth should have administered 9.2 million doses by the week of 12 July.

As of this date, the states have reached their target but the Commonwealth has fallen well below their target through both Primary Care and Aged Care & Disability Care programs.

The table below outlines shows how each jurisdiction is meeting or failing its targets as of 12 July.

**Table 2.1 Vaccine roll-out by jurisdiction**

Jurisdiction	Doses given to date	Indicative Target*	Target reached (%)	Results	Rank
NT	72,223	23,700	305%	PASS	1
TAS	132,423	49,500	268%	PASS	2
ACT	102,736	40,300	255%	PASS	3
VIC	1,229,562	619,300	199%	PASS	4

SA	288,820	163,700	149%	PASS	=5
QLD	710,110	476,900	149%	PASS	=5
WA	367,875	246,800	149%	PASS	=5
NSW	1,073,809	754,500	142%	PASS	8
<i>State subtotal</i>	4,047,553	2,375,000	170%	PASS	<i>n/a</i>
Commonwealth- Primary Care	4,791,426	8,414,300	57%	FAIL	9
Commonwealth – Aged Care & Disability Care	465,047	850,000	55%	FAIL	10

Source: Department of Health vaccine roll-out update – 13 July 2021<sup>9</sup>

Victoria and the smaller jurisdictions of Tasmania, Northern Territory and the ACT have doubled the number of doses we would have expected at this point in the roll-out. All States and Territories are exceeding the targets set out in the March 2021 Roadmap. However, the Commonwealth programs have failed to meet their targets as of July 2021.

## Delivery methods

To identify where these failings have occurred within the Commonwealth programs, we explore the capacity of the programs to administer the vaccine and any deficiencies.

- Aged Care and Disability Care

The Aged Care and Disability Care vaccination program is vital to insulate vulnerable communities from the virus. COVID-19 outbreaks in aged care facilities have contributed to more than 75 per cent of all COVID-related deaths in Australia.<sup>10</sup>

As of 12 July 2021, 250,589 doses had been administered in aged care and residential disability care. A further 214,458 second doses had been administered. The unclear number of people eligible for this program makes an overall assessment difficult.

The 3,871 doses administered in 24 hours to 12 July 2021 appears too low for such an important cohort. However, on 19 June the Commonwealth Government announced that:

*“Ongoing vaccinations for new residents and staff will be provided through GPs, state and territory/ Commonwealth clinics, or facilities undertaking their own vaccination processes.”<sup>11</sup>*

The imminent closure of the Aged Care and Disability Care program places additional importance on the success of the other delivery methods.

In early July, the Age Care and Disability Care programs were extended until December. Uncertainty surrounding the program is likely to reduce its effectiveness.

- Primary Care

The Primary Care model was scheduled to reach maturity by 7 June 2021. From then on, more than one million doses were to be delivered per week. Within Primary Care, various delivery methods are assigned approximate vaccination targets in accordance with the Roadmap.

Table 2.2 Target and Actual Primary Care Vaccination Program Sites

Program	Target	Actual	Percent of target reached
General Practice (including Respiratory Centres)	4830	5,120	106%
ACCHS	300	158	53%
Community Pharmacies	2000	65	3%
Community Vaccination Centres (CVCs)	n/a	245	n/a
<b>TOTAL</b>	<b>7,130</b>	<b>5,588</b>	<b>78%</b>

Source: Vaccine Roll-out Strategy,<sup>12</sup> Roll-out update 8 July 2021<sup>13</sup>

General practitioners (GPs), including GP Respiratory Clinics, have reached and exceeded the number of vaccination sites with more than 5,000 sites administering the vaccine as of 7 July. Despite this success, only 78 per cent of the vaccination sites outlined in the Roadmap have been established. A new category of Community Vaccination Centres has been established which helps make up for some of the missed targets.

Aboriginal Community Controlled Health Services and Pharmacies are underdeveloped. Like Aged Care and Disability Care residents and workers, Aboriginal communities have been identified by health officials as a priority cohort to be vaccinated.

Despite the priority status and the lagging program, the Commonwealth Government has been heavily criticized for its approach to Aboriginal Health Care Services to date. The National Aboriginal Community Controlled Health Organisation CEO, Pat Turner, has expressed disappointment that she was not invited to the recent National COVID-19 vaccine task force headed by Lieutenant General, John Frewen:

*"We have not been invited to the meeting that he had with all of the jurisdictions today, which is very disappointing given the efforts we have made to keep our people safe from COVID."*

- Pat Turner, CEO, National Aboriginal Community Controlled Health Organisation

The most drastically underdeveloped component of the Primary Care program is the number of community pharmacies engaged in the roll-out. Under the original plan, 2000 pharmacies should have been delivering vaccines since 7 June 2021.<sup>14</sup> As of 14 July hundreds of pharmacies have been announced as joining the program but just 65 have delivered a vaccine.<sup>15</sup>

Pharmacies can deliver a larger number of doses pending the supply of the vaccine. If pharmacies had been onboarded on schedule, more than one million additional doses would have likely been administered as of the date of this report's release. Failure to utilise pharmacies is already slowing the vaccination roll-out substantially.

## Issues of supply

Before concluding that these pharmacies represent the missing link to the success of the vaccination program, we must first assess any supply constraints that were blamed as the major source of delay early in the roll-out. Supply before 1 July 2021 appears to have been constrained<sup>16</sup> and may account for the delay in including pharmacies in the Primary Care vaccination program.

A new COVID-19 Vaccination Allocation Horizons plan was announced on 11 July 2021. According to the plan, from July 2021, Primary Care has been allocated around two and a half million doses per week, including a sizeable number of Pfizer doses. This supply is more than enough to deliver the one million weekly doses through the Primary Care program as planned in the original Roadmap.

Table 2.3 Vaccine supply horizons for Primary Care

	<b>Horizon 1</b>	<b>Horizon 2</b>	<b>Horizon 3</b>
	July-August	September	October-December
<b>AstraZeneca</b>	1,899,100 – 2,110,200	1,899,100 – 2,110,200	225,000- 250,000
<b>Pfizer</b>	393,700 – 437,400	483,700 – 537,500	1,123,400 – 1,248,300
<b>Moderna</b>	0	86,300- 103,500	526,100 – 631,300
<b>Total</b>	2,292,800 – 2,547,600	2,469,100 – 2,751,200	1,874,500 – 2,129,600

*Source: Department of Health - COVID-19 Vaccination Allocations Horizon.<sup>17</sup>*

As a result of the new vaccination allocations, any supply constraints for the Primary Care program have been corrected. Therefore, the major deficiency in the Primary Care vaccination program is in the methods of delivery, namely the failure to utilise pharmacies.

Supply in the Aged Care and Disability Care program is relatively low but sufficient to meet its targets. However, uncertainty continues within this program. It was scheduled to end in September and merge into the Primary Care program but will now continue as a separate program through to December.

Table 2.4 Vaccine supply horizons for Aged Care and Disability Care

	Horizon 1	Horizon 2	Horizon 3
	July-August	September	October-December
<b>Aged Care &amp; Disability Care program</b>	128,300 – 142,700	123,800 – 137,500	14,100 – 15,700

Source: Department of Health - COVID-19 Vaccination Allocations Horizon.<sup>18</sup>

## Pharmacies represent untapped potential

To date, the utilisation of pharmacies has been limited. On 29 June 2021, the Commonwealth announced a pharmacy vaccination program with 49 pharmacies in regional Queensland before expanding to cover 207 sites.<sup>19</sup> As at the time writing, the latest update is that 65 community pharmacies are online, with that number expected to increase to more than 1,000 by the end of August 2021.<sup>20</sup>

Shortly after the 'Bondi cluster' emerged, the NSW Government announced that 22 pharmacies in regional and rural NSW would begin administering vaccines.<sup>21</sup>

After accepting expressions of interest, the Pharmacy Programs Administrator has assessed approximately 4000 pharmacies as 'suitable' to deliver the AstraZeneca COVID-19 vaccine.<sup>22</sup> These pharmacies represent untapped potential. In the United Kingdom, which leads the world in its vaccine roll-out, over five million doses have been delivered through pharmacies in England alone.<sup>23</sup> Similarly, the United States has administered more than 96.7 million doses through retail pharmacies.<sup>24</sup> Notably in the United States, 42 per cent of the pharmacy doses have gone to a person from a racial or ethnic minority.<sup>25</sup> As such, pharmacies represent untapped potential not only in increasing the speed of the vaccine roll-out, but also in reaching communities that may not be likely to get a vaccine through other routes.

Pharmacies have existing relationships with Australia's seniors, based on the dispensing and delivery of medication. With access to COVID-19 vaccines, these relationships could be harnessed to encourage a higher rate of vaccination coverage of the senior population. Pharmacies also carry local convenience, with almost all Australians living within two kilometres of a local pharmacy.

Pharmacies can also attract Australians who would not book in a COVID-19 vaccination of their own volition but may be prompted to while visiting a pharmacy. Those who visit pharmacies for a flu vaccine are generally younger and prefer the convenience of getting their shot at the local pharmacy.<sup>26</sup> The Therapeutic Goods Administration (TGA) has designated Pfizer as the preferred vaccine for younger Australians. Given the preferences for young people to use a pharmacy to be vaccinated, they should be provided with Pfizer and other vaccines pending approval by the TGA.

All healthcare professionals with experience administering vaccines should be prioritised for use in the COVID-19 Vaccination program. This was the intention of the March 2021 Roadmap which set out a plan to vaccinate Australia by October 2021. Pharmacists are well placed to bring the vaccination program back on track through advice to patients about the benefits and risks of COVID-19 vaccines and to address vaccine hesitancy.

Public appetite for receiving vaccines at a local pharmacy is already evident. The Australian Bureau of Statistics' June 2021 survey on Household Impacts of COVID-19 found that 6.9 per cent of Australians would identify a local pharmacy as their preferred location to receive their vaccination.<sup>27</sup> This rose to 9 per cent in Queensland.

The Pharmacy Programs Administrator's expression of interest process for participation in the COVID-19 vaccine roll-out limited pharmacies to use of the AstraZeneca vaccine. Since this time TGA advice regarding the use of AstraZeneca has become more defined, and supply of other vaccines such as Pfizer and Moderna have been bought forward.

Further vaccine program delays are likely if pharmacies are unable to deliver Pfizer and Moderna vaccines. The latest Vaccine Allocation Horizon plan outlines a decrease in AstraZeneca supply and an increase in Pfizer and Moderna supply. The utilisation of pharmacies within the vaccination program needs to reflect the changing TGA advice and changing vaccine supply.

To avoid further delays the Pharmacy Programs Administrator should immediately open expressions of interest for pharmacies to administer the Pfizer and Moderna vaccines pending advice from the TGA.

### 3. Analysis

As of 7 July 2021, 9,304,026 COVID-19 vaccine doses had been administered. This is a combination of 6,868,754 first doses (33.31% of the 16+ population) and 2,400,432 second doses (11.64% of the 16+ population).

Table 3.1 Calculating the latest number of doses per week

	5-July-21	12-July-21	Weekly Doses
Total Doses	8,402,191	9,304,026	901,835
States/Territories	3,621,886	4,047,553	425,667
Commonwealth	4,780,304	5,256,473	476,179

*Source: Australian Government Department of Health*

In the week between 5 July and 12 July 2021, there were 901,835 doses administered.

Based on the number vaccinated so far, and the current speed of the vaccine roll-out, The McKell Institute can model different scenarios for how the vaccine roll-out will proceed into the future.

As a baseline scenario with 65 pharmacies online, the vaccine roll-out is assumed to continue at the same rate as in the week that it was delivered between 5 and 12 July 2021. This is a conservative estimate, as governments have assured us that the speed of the vaccine roll-out will increase as supplies increase.

#### Mapping the original vaccine roll-out plan onto the current numbers

According to the original plan, at 2000 sites, pharmacies can supply 200,000 doses to the vaccine roll-out. According to the Minister for Health's latest statement, 65 pharmacies are currently online.<sup>28</sup> Mapping this onto the most recently weekly roll-out figure, an additional 1,935 pharmacies would each be able to supply 100 doses per week. As such, 2,000 pharmacies online would be able to provide an additional 193,500 doses per week to the weekly vaccine roll-out.

As stated above, the Pharmacy Programs Administrator has approved approximately 4,000 pharmacies across Australia as suitable to administer the COVID-19 vaccine.<sup>29</sup> As such, we can also model the additional boost to the roll-out that would be delivered by offering vaccines in the approximately 4,000 pharmacies. This would therefore bring the total vaccines per week up by 393,500 to nearly 1.3 million doses a week.

## Doses required for 65 per cent and 80 per cent coverage of eligible population

It remains unclear what percentage of vaccination coverage is required in order to transition each between each phase of the National Cabinet's transition plan.

Table 3.2 Doses required for 65 per cent and 80 per cent coverage of eligible population

<b>Aus pop. aged 16+</b>	20,619,959
<b>Two doses</b>	41,239,918
<b>80% of pop. receiving 2 doses</b>	32,991,934
<b>65% of pop. receiving 2 doses</b>	26,805,947

## The potential increase in speed of the vaccine roll-out

Table 3.3 Days to reach goal under three scenarios

Goal	Current pharmacies		2000 pharmacies		4000 pharmacies	
	Days to reach goal	Date*	Days to reach goal	Date*	Days to reach goal	Date*
65% eligible pop. vaccinated	136	27/11/21	112	03/11/21	95	17/10/21
80% eligible pop. vaccinated	184	14/01/22	151	12/12/21	128	19/11/21

\*Date calculated from 14 July 2021

Figure 3.1 Speed of vaccine roll-out based on utilisation of vaccines

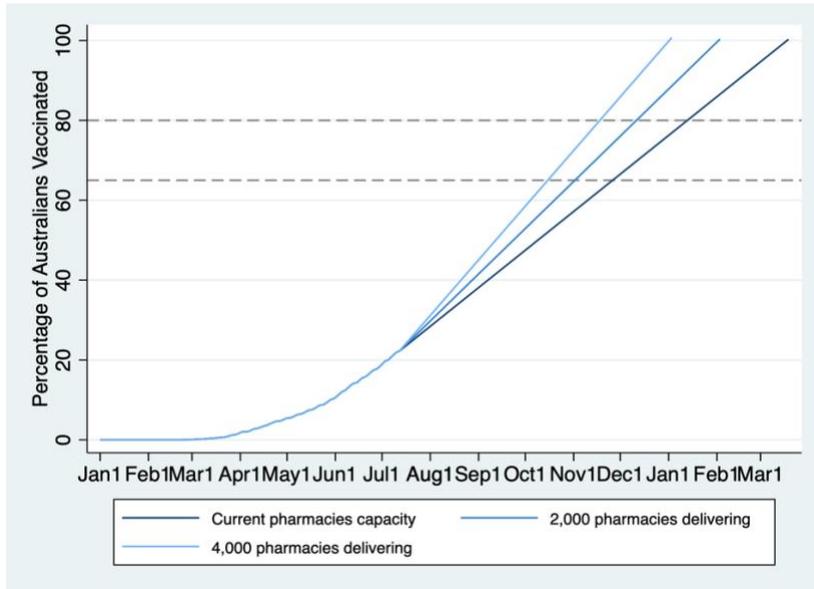


Figure 3.1 illustrates the varying rates of vaccine administration under the three models examined. It demonstrates that, by maximising the use of pharmacies in vaccine distributions, the vaccine roll-out will be significantly expedited.

### Economic benefit

Previously, The McKell Institute has calculated that the average daily cost of a lockdown in Australia’s largest cities is approximately \$123 million.<sup>30</sup>

The McKell Institute analysis has also shown that each day that borders are closed costs the economy approximately \$203 million a day.<sup>31</sup>

Table 3.4 Impact of an increase in roll-out spend on the Australian economy

Goal	2000 pharmacies online			4000 pharmacies online		
	Days saved	Fewer days at risk of lockdown	Economic benefit	Days saved	Fewer days at risk of lockdown	Economic benefit
<b>65% eligible pop. vaccinated</b>	24	3.3	\$5.3 b	41	5.6	\$9.0 b
<b>80% eligible pop. vaccinated</b>	33	4.5	\$7.3 b	56	7.6	\$12.3 b

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