

Research Insights

Can bribing over 50's help Australia reach herd immunity faster?

Australia's COVID-19 vaccination rollout has been slower than expected, especially when compared to other Western OECD countries. Should we be offering cash incentives as a way to accelerate vaccine uptake? Is it going to be that easy?

The bumpy road to “herd immunity”

Australia is one of the developed world’s worst performers in terms of vaccinating the population against COVID-19. We were recently ranked last out of all the OECD countries for vaccination rates, with only 16% of the population fully vaccinated in July 2021 (John Hopkins University, 2021). This is due to a number of factors, including a lack of supply, age eligibility barriers and hesitancy amongst certain groups of the population to receive the vaccine.

Medical experts state that for all those over 12 years old, at least 80 per cent full vaccination rates are required to achieve “herd immunity”, the level required to get the virus under control. (McIntyre et. al, 2021, Seale et. al., 2021).

We know that offering financial incentives can be an effective method used to increase vaccination rates in other situations, including to improve the uptake of preventive health programs (Scott & Schurer, 2008).

In this Research Insight, we investigate the extent to which offering cash incentives might speed-up the rollout of the vaccine, in order to achieve herd immunity. In June 2021, the Taking the Pulse of the Nation (TTPN) survey asked Australians about their willingness to get vaccinated. Based on their initial responses, people were categorised into three groups (Table 1) of decreasing degrees of commitment to the vaccination. Hypothetical cash amounts of \$25, \$50 and \$100 were randomly offered to respondents categorised as “II. Committed to vaccination, but not immediately” or “III. Uncommitted to vaccination” to see if it would change their intention to “vaccinate immediately”.

From the original full sample of 2,400 respondents (representative of all Australian residents 18 years and over), we analyse the 1101 respondents 50 years of age and over, as only they were eligible for voluntary vaccination during the full survey period (31 May –18 June 2021).

Table 1: Categorisation of respondents and offer of hypothetical cash incentive

Categories of respondents	Responses	Hypothetical cash incentive offered
I. Committed to immediate vaccination	1) Already had at least one dose of the vaccine. 2) In principle willing to have a vaccine, as soon as possible.	No
II. Committed to vaccination, but not immediately	In principle willing to have a vaccine, 1) but currently prefer to wait; 2) but unsure when.	Yes
III. Uncommitted to vaccination	1) Unsure of whether to have a vaccine at all. 2) Not willing to have a vaccine.	Yes

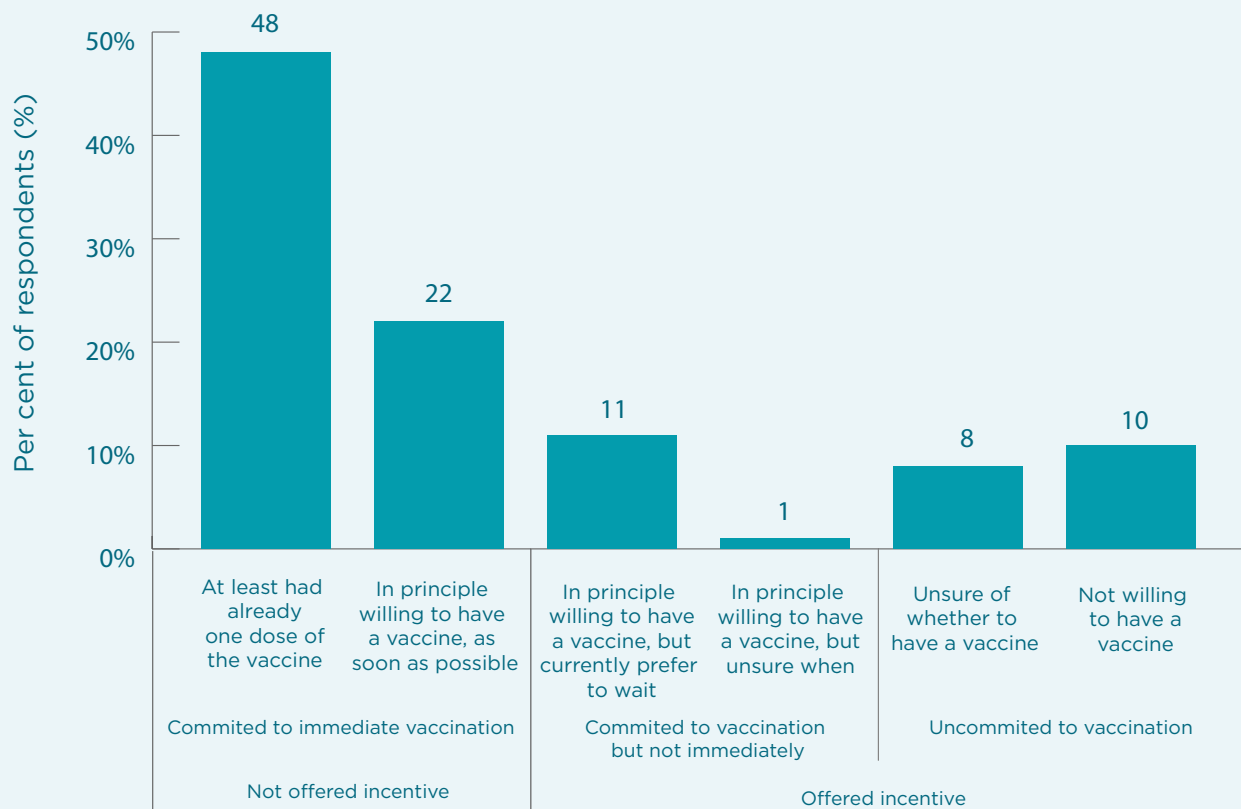
Key Insights

1 Seven out of ten Australian residents 50 years and over are committed to immediate vaccination

Figure 1 shows that 70 per cent of respondents 50 years and over are committed to immediate vaccination – 48 per cent have had at least one vaccination and 22 per cent are committed to having their vaccination as soon as possible. However, 12 per cent are committed to getting the vaccination, but not immediately.

The remaining 18 per cent are uncommitted to being vaccinated – with 8 per cent points unsure and 10 per cent points unwilling. The COVID-19 vaccinations currently available in Australia require two doses per person of the designated vaccine to provide the fullest coverage from the virus.

Figure 1: Willingness to get vaccinated



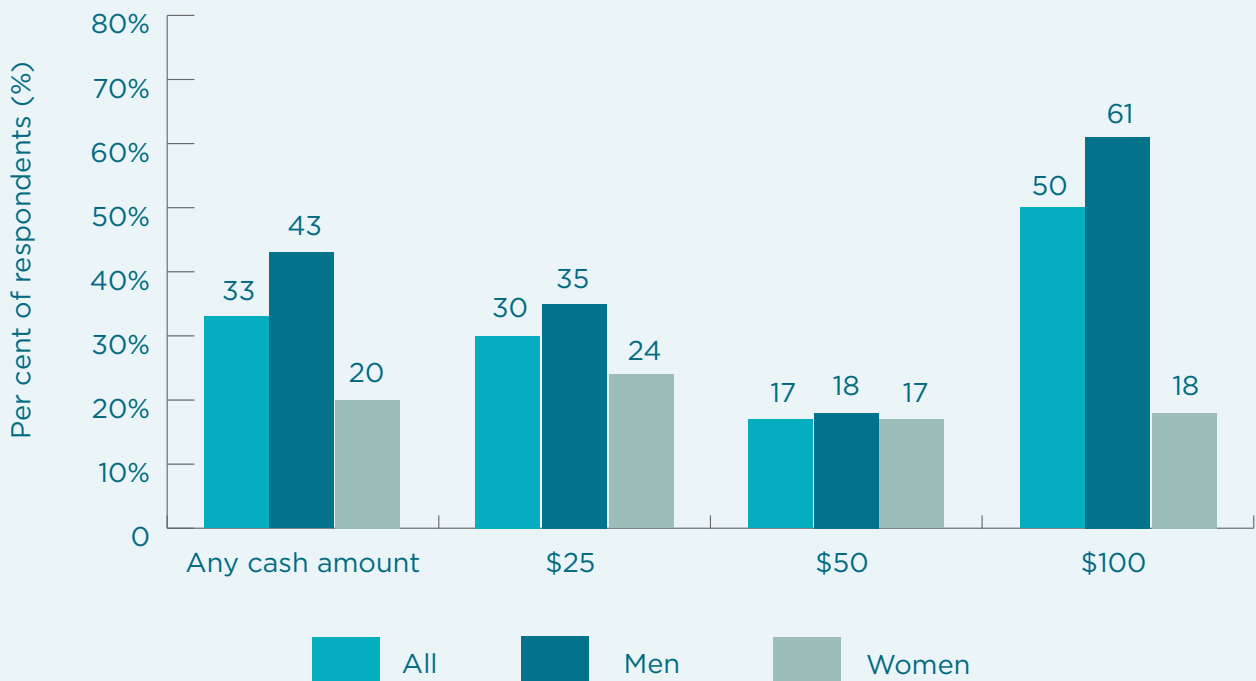
Source: Data from the *Taking the Pulse of the Nation* survey, representative of the Australian population aged 18 and over. This study uses only those 50 years and older (N=1101). The vertical axis indicates the proportions (%) based on weighted responses. Survey question: (1) “Are you willing to have the COVID-19 vaccine?” – Yes/No/Don’t know/I have had it already and (2) “If yes, “When would you like to be vaccinated?” – As soon as I am eligible (or is possible)/willing to wait/don’t know.

2 Offering cash incentives can help hasten the vaccination roll-out, but only for men and only for payments of at least \$100

We examine the group we call “II. Committed to vaccination, but not immediately” (Table 1). To assess the extent to which these preferences might be altered through incentives, we asked these respondents if they would like to be vaccinated as soon as possible, should they be offered a hypothetical cash incentive.

Hypothetical cash amounts of \$25, \$50 and \$100 were randomly offered to these respondents. We find that men are more willing to change their intention to get vaccinated immediately in response to any sort of cash incentive (43% men versus 20% women), and even more so as the payment increases (61% versus 18% for \$100) (Figure 2).

Figure 2: People (aged 50+) who would get vaccinated sooner if offered cash incentive



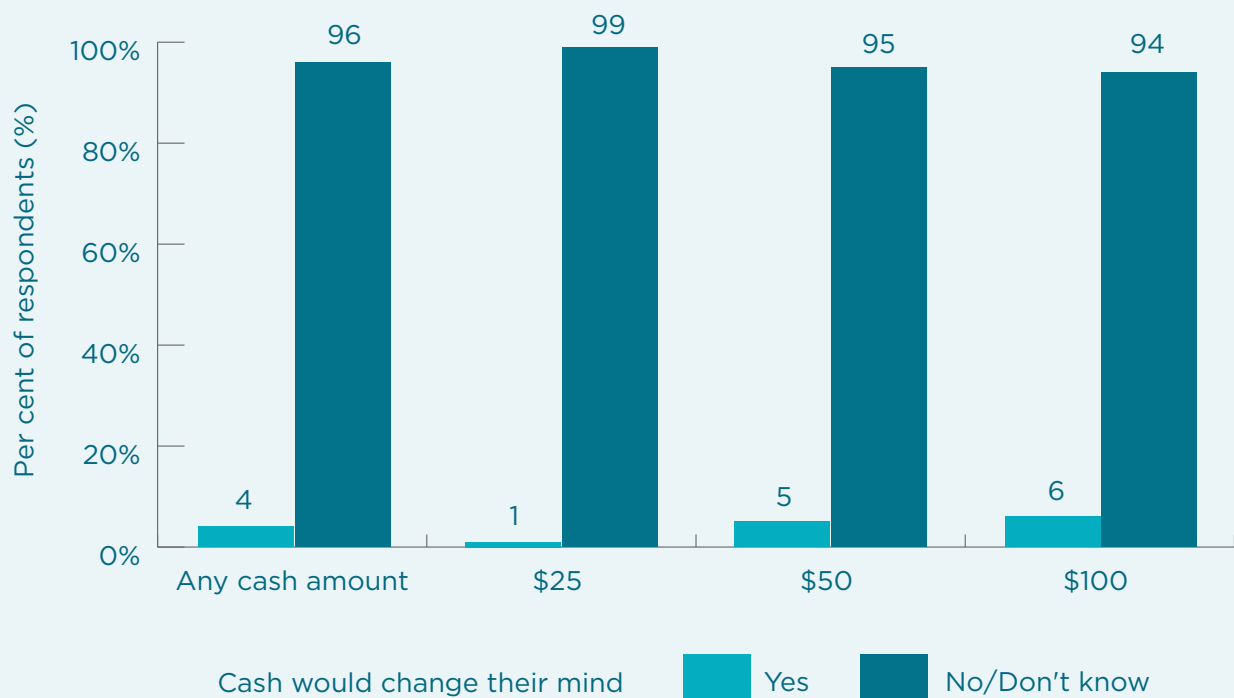
Source: Data from the *Taking the Pulse of the Nation* survey, representative of the Australian population aged 18 and over. This study uses only those 50 years and older (N=1101). This figure depicts the responses of those who are committed to vaccination but not immediately (N=131). The vertical axis indicates the proportions (per cent) based on weighted responses. Those who are committed to vaccination, but not immediately were asked if they would like to be vaccinated as soon as possible if they were offered cash incentive. Hypothetical cash amounts of \$25, \$50 and \$100 were randomly offered to respondents and their responses were recorded as “Yes”, “No” or “Don’t know”.

3 Offering cash incentives is unlikely to increase the rate of vaccination among the uncommitted Australian population.

We lastly examine the group we call “III. Uncommitted to vaccination” (Table 1). We further questioned the 18 per cent of respondents most hesitant towards vaccination and asked whether they might change their minds if they were offered a cash incentive to be vaccinated as soon as possible. Hypothetical cash amounts of \$25, \$50 and \$100 were randomly offered to these respondents.

We find that the rate of vaccine hesitancy is decidedly higher among this group, as 96 per cent of respondents continued to say “No” or “Don’t know” in relation to getting the vaccine as soon as possible, for any level of a cash incentive (Figure 3). This suggests that offering cash incentives alone is unlikely to sufficiently increase the rate of vaccination in the Australian population.

Figure 3: People (aged 50+) uncommitted to vaccination, but would change their mind if offered cash incentives



Source: Data from the *Taking the Pulse of the Nation* survey, representative of the Australian population aged 18 and over. This study uses only those 50 years and older (N=1101). This figure depicts the responses of those who are uncommitted to vaccination (N=193). The vertical axis indicates the proportions (%) based on weighted responses. Those who are uncommitted to vaccination were asked if they would like to be vaccinated as soon as possible if they were offered cash incentive. Hypothetical cash amounts of \$25, \$50 and \$100 were randomly offered to respondents and their responses were recorded as “Yes”, “No” or “Don’t know”.

Legislated compliance enforcement is likely needed to help achieve the goal of herd immunity

For some people, no amount of cash incentive is going to make them change their mind if they are opposed to getting the vaccine. As a last resort, this may imply some level of legislated compliance enforcement is required in order to reach herd immunity of 80 per cent.

In the survey, we find that 70 per cent of the adult resident population in Australia 50 years and over has already received at least one dose of the COVID-19 vaccine or is willing to receive it *immediately*.

For those hesitant to receive the vaccination, through incentivisation of amounts between \$25 and \$100, an additional 5 per cent can be convinced to get the vaccination immediately. Altogether this is already less than the 80 per cent of the 50 and over adult population, who have gotten, or would get a vaccination immediately, in order to reach herd immunity. *In addition*, all those between 12 and 49 years old would *also* have to reach at least 80 per cent of the medically required level of full (two-dose) high-efficacy vaccination in order to achieve herd immunity.

Without complete voluntary compliance from all people 12 years old and above, other measures should be considered to reach those who are uncommitted and steadfastly hesitant towards

getting the vaccine. Policymakers may be forced to resort to more “sticks” (legislated compliance enforcement), in addition to “carrots” (voluntary incentive payments) to achieve the goal of herd immunity, such as mandated vaccine requirements for day-care, aged care, school enrolment, public transport and mass public event attendance to name a few examples.

The consequence of not achieving at least 80 per cent full vaccination rates would be permanent medical, social and economic disruption of the country and needless death, in an endless repetition of outbreak, lockdown, temporary recovery and further outbreak. If all of those who medically can receive the vaccine altruistically did so when the vaccines were made available, Australia would very soon be winning its battle with COVID-19.



WHAT IS HERD IMMUNITY?

Herd immunity occurs when a large portion of a community (the herd) becomes immune to a disease, making the spread of disease from person to person unlikely. As a result, the whole community becomes protected, not just those who are immune. (www.mayoclinic.org)

Further Information

Datasets:

This analysis uses data from the Taking the Pulse of the Nation – Melbourne Institute’s survey of the impact of COVID-19. The aim of the weekly survey is to track changes in the economic and social wellbeing of Australians living through the effects of the coronavirus pandemic whilst adapting to various changes in Federal and State government policies. The survey contains responses from 1,200 persons, aged 18 years and over. The sample is stratified by gender, age and location to be representative of the Australian population. The current analysis draws on survey responses collected from wave 34 and wave 35 over 31 May – 18 June 2021.

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Why is Australian’s willingness to be vaccinated falling, and what can we do to increase it?

How does your view of government affect your willingness to be vaccinated against COVID-19?

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