
ANU COVID-19 Vaccine Series

# Socioeconomic determinants of vaccine uptake: July 2021 to January 2022

ANU Centre for Social Research and Methods and National Centre for Epidemiology and Population Health

Professor Nicholas Biddle[1], Dr Jennifer Welsh[2], Professor Peter Butterworth[2], Associate Professor Ben Edwards[1], Professor Rosemary Korda[2]

1. ANU Centre for Social Research and Methods, Australian National University
2. National Centre for Epidemiology and Population Health, Australian National University

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## Series Note

This paper has been produced as part of a series of papers using linked Australian Immunisation Register (AIR) to Multi-Agency Data Integration Partnership (MADIP) data asset, focusing on uptake of COVID-19 vaccinations in Australia.

## Extended abstract

In this paper we describe variation in COVID-19 vaccination uptake (proportion vaccinated) in relation to socioeconomic position (SEP) and factors associated with the probability of having been vaccinated with at least one dose as of mid-January 2022. While Australia has achieved relatively high rates of vaccination nationally, the data summarised in this paper suggests that there are groups in the Australian population with lower levels of vaccine uptake than others.

There were clear gaps in uptake of COVID-19 vaccination according to SEP. For all measures of SEP, in each state and territory, those of the lowest SEP had lower uptake compared to those of the highest SEP. The socioeconomic-related gaps in uptake were largest in Queensland, Western Australia, South Australia, the Northern Territory and Tasmania, the states and territories with the lowest overall uptake, and smallest for New South Wales, Victoria and the Australian Capital Territory, the states and territories with higher overall uptake. More marked inequalities were observed among the younger age groups, and were particularly large among young adults living in states with lower overall uptake where gaps between those of lowest and highest SEP in the proportion vaccinated were as large as 30 percentage points.

Results from our regression analyses showed that Aboriginal and Torres Strait Islander Australians were significantly and substantially less likely to be vaccinated. Those Australians who spoke a language other than English were also less likely to have been vaccinated, with the biggest difference for those who did not speak English well or at all. Those Australians whose parents were born overseas were less likely to have been vaccinated, with a very large difference between citizens and non-citizens. Vaccination rates were highest in Victoria and the ACT, with Queensland and Western Australia having the lowest vaccination rates. Those who lived in major cities had the highest vaccination rate.

Those Australians who were unemployed or not in the labour force were significantly and substantially less likely to have been vaccinated. Amongst those who were employed, professionals and community and personal service workers had the highest probability whereas the lowest probability was for labourers, technicians and trade workers, and managers. Unpaid work also appears to have a positive association with vaccination.

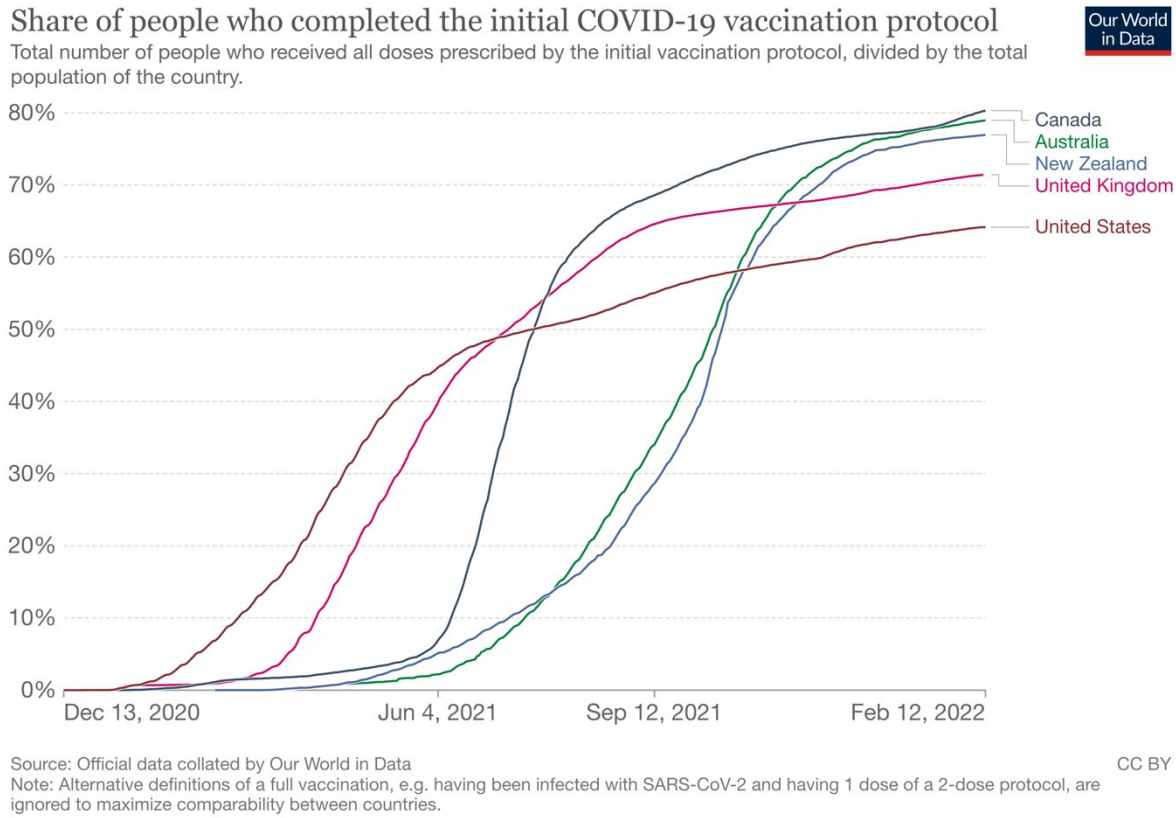
Carers of those with a disability were only slightly more likely to have been vaccinated than those who were not carers, whereas those with a disability themselves were substantially less likely to have been vaccinated than those without a disability. Those who did not complete their 2016 Census form online but rather completed a paper form had a lower probability. Household wealth, as proxied by home ownership, was also associated with vaccination.

The focused analysis also showed that those with low education and those at the bottom of the income distribution were significantly and substantially less likely to have been vaccinated than the rest of the population. However, there appears to have been some convergence through time, particularly with regards to education differences, with a smaller gap in January 2022 compared to October 2021, and July 2021 in particular.

# 1 Introduction and overview of method

After a relatively slow start related to limited vaccine supply and initial concerns about potentially high rates of vaccine hesitancy (comparable to other countries), Australia saw a very a steep increase in vaccine coverage to a high population level from the middle of 2021. As shown in Figure 1, as of February 11th 2022, the total number of Australians who had 'completed the initial COVID-19 vaccination protocol' (i.e., two doses) divided by the total population was 79.0 per cent, above that of the UK and the USA, and very similar to that of Canada (despite a very large gap early on). Of the five major high-income English-speaking countries, only New Zealand has had a comparable growth rate since the middle of the year, with New Zealand now having a similarly high vaccination rate as Australia (based on this measure).

**Figure 1 Total number of people who received two vaccination doses divided by total population of country – Australian, Canada, New Zealand, United Kingdom and United States of America**




[1] shows that older Australians have higher vaccine uptake than younger Australians, and that there is an interaction between age and sex with some age groups having a higher uptake for males, and others having higher uptake for females.

1 https://www.health.gov.au/resources/collections/covid-19-vaccination-daily-rollout-update

For second-dose uptake, there are also large geographic differences across Australia, such that the ACT and Tasmania have highest uptake and the Northern Territory, Queensland, and South Australia the lowest. New South Wales, Victoria, and Western Australia are somewhere in between. These differences are not surprising given the staged roll-out in Australia by age group and other factors, substantial variation in COVID-19 infection risk, and different State/Territory policy approaches.

While knowledge of broad geographic and demographic differences in vaccination uptake are important for monitoring and targeting, there are many other characteristics of the population that have the potential to have an impact. In particular, if it is shown that there are some groups that have significantly lower uptake than the average for the general population, then there is a substantial risk that the loosening of COVID-19 restrictions (for example border closures, mask requirements, or density levels) that has occurred recently will result in a disproportionally higher risk of infection, hospitalisation, and mortality for these groups compared with others.

In addition, a large group of unvaccinated people especially if geographically clustered can create an infection risk for those with low immunity and those with risk factors for severe disease (for example advanced age or comorbidities) despite vaccination, or who are themselves unable to be vaccinated due to age or other factors. Finally, identifying groups that have higher or lower vaccine uptake can tell us a lot about potential barriers to vaccination, as well as potential motivations.

In this paper we report results from a combination of descriptive and regression analyses, including factors associated with the probability of having been vaccinated with at least one dose as of three points of time – late July 2021 when first-dose vaccination rates were starting to substantially increase and many Australians had only just became eligible, late October 2021 when the vast majority of Australians had had an opportunity to be vaccinated, and mid-January 2022 when infection rates in Australia were at their highest and much of the policy focus had shifted to third dose/booster uptake. A particular focus is on the socioeconomic determinants of vaccine uptake, though we also present detailed demographic and geographic differences, controlling for socioeconomic characteristics. The most recent data presented in this paper is from January 10$^{th}$, 2022, with comparisons also made to previous points in the vaccination roll-out.

The remainder of the paper is structured as follows. We begin with a discussion of the data and methods used in this paper (Section 2). In Section 3 we provide and discuss descriptive statistics for our key variables of interest. Section 4 provides model results and a lengthy discussion of the demographic, employment, geographic, and household factors associated with vaccine uptake whereas Section 5 and 6 provide a more detailed discussion on education and income (respectively). In Section 7, we provide some concluding comments.

# 2 Data and methods

## 2.1 Describing the data

Results presented in this paper are based on analysis of the linked Australian Immunisation Register (AIR) – Multi-Agency Data Integration Project (MADIP) data asset. Vaccine uptake percentages differ from the aggregate data reported by the Department of Health, which are based on the total number of vaccinations in Australia divided by the relevant (ABS) Estimated Resident Population. They also differ from estimations made using the unlinked AIR database.

This is because the analysis presented in this paper is based on a linked dataset where the population of interest is those in scope of census-based socioeconomic and demographic analysis. Specifically, the population of interest for the linked dataset are those who:

- had a 2016 Census record;
- did not have their age and/or sex imputed on Census (that is, they answered both questions);
- did not have a record of death as of the end of 2020;
- were aged 15 years and over at the time of the 2016 Census; and
- did not have an 'end date' on the combined MADIP geographic and demographic database.

AIR data were linked to the 2016 Census of Population and Housing and Death Registrations via the MADIP Person Linkage Spine. The Spine is a person-level identification key created by linking data from three separate administrative databases: Medicare Consumer Directory, Department of Social Services Data Over Multiple Individual Occurrences (DOMINO) Centrelink Administrative Data database and Personal Income Tax database. Together, these three data sources have virtually complete coverage of the resident population of Australia. The majority of AIR records (96%) have a direct link to the Spine via the Medicare Personal Identification Number (PIN). The remaining records were linked using deterministic linkage methods based on name, date of birth, address and sex[2]. Census and Death Registration records were linked to the MADIP Spine using deterministic and probabilistic linkage methods, based on name, date of birth, address and sex[3]. For this analysis, we used version 4 of the Spine.

The outcome for the analysis is constructed by setting all those with a COVID-19 vaccination record in the Australian Immunisation Register (AIR) to a value of 1 (regardless of the type of COVID vaccination and the number of vaccinations). All those who are in the population of interest who do not have a COVID vaccination record are set to a value of zero.

It is recognised that some people may not have a vaccination record because they left Australia between the 2016 Census and the vaccination period, because their vaccination record could not be linked to the MADIP Spine, or because they died post-2020. For this reason, measured vaccine uptake may be lower than for the same age cohort when estimated using AIR levels of vaccination divided by the Estimated Resident Population.

The total sample size is 17,034,425 records without excluding individuals who did not respond to individual census items. Within that population of interest, 84.5 per cent had received at least one COVID-19 vaccine, and 82.8 per cent were fully vaccinated (with two or more doses recorded) as of the 10$^{th}$ of January 2022. For the regression sample (that is the 12,350,005 individuals after excluding item non-response), the proportion who had received one- and two-doses of the vaccine were 86.3 per cent and 84.7 per cent respectively. For the other two time

2 Australia Bureau of Statistics. Integration of the Australian Immunisation Register (1 January 2010 to 4 May 2021) and the Person Linkage Spine (June 2020). Linkage Method and Quality Report.

3 Australian Bureau of Statistics. Microdata: Multi-Agency Data Integration Project. Cat. No. 17000. 2018. Canberra: ABS, 2018.

points used in the regression analysis, the proportions who had received the first dose of the vaccine was 42.6 per cent as of July 31st 2021 and 82.1 per cent as of October 31st.

The comparable proportions aged 16 years and over in Australia on the 10th of January 2022 who were vaccinated (calculated using the Estimated Resident Population as the denominator) were 94.7 per cent for first dose and 92.1 per cent for second dose and therefore vaccination levels are not strictly comparable. Our estimate of proportions vaccinated for the population of interest is below the official estimate for Australia as a whole. The regression sample, however, has a higher proportion of the sample who have received a vaccine compared to the population of interest and one that is closer to the national level estimates.

## 2.2 Descriptive analysis

We begin our presentation of results (in Section 3) with a descriptive comparison of vaccine uptake across three measures of socioeconomic position (SEP). The first two of these measures are using similar constructs to those used in the detailed modelling but in a more aggregated form. The third measure is an area-level-aggregate that is often used for official reporting of socioeconomic variation in Australia. Specifically, our three measures are:

1. *Highest level of education*, using data drawn from two Census variables: highest level of school completed and highest non-school qualification. Using these two variables, we created five mutually exclusive categories: no post-secondary school qualification and did not complete Year 12 (lowest level); no post-secondary school qualification but completed Year 12; other post-secondary school qualification but did not complete Year 12; other post-secondary school qualification and completed Year 12; and, Bachelor's degree or higher, irrespective of whether Year 12 was completed (highest level). 4.9% of respondents in our sample had missing information on highest level of education.
2. *Household equivalised income*[4], drawn from the Census, and grouped into categories approximating national population-based quintiles. This approach grouped the following categories: Nil-<$26K (lowest income); $26K-<$41.6K; $41.6K-<$65K; $65K-<$104K; and $104K+ (highest income). 4.5% of respondents in our sample had missing information on household equivalised income.
3. *The Socio-Economic Indexes for Areas (SEIFA) Index of Relative Disadvantage (IRSD*), an area-level measure of SEP, based on the Statistical Area 2 (SA2) level of geography using address at the time of Census 2016. We grouped SEIFA IRSD scores into national population-based quintiles. There were no missing data on this measure.

Our sample for the descriptive analysis included those with a Census 2016 record linked to the Spine, without a linked Death Registration record, who were aged between 20 and 79 years on 31 December 2020. Those aged 19 years and under on 31 December 2020 were excluded from the analysis, despite being eligible for the COVID-19 vaccine because of a lack of information on them from the 2016 Census (many of the relevant questions were only asked of those 15 years and over). Those aged 80 years and over were excluded because previous validation work has shown potential validity issues for estimates of uptake among this age group using the

4 Equivalisation of household income takes into account the ability to share resources within a household. The ABS uses the 'new OECD scale', which assumes each additional adult in the household beyond the first adult requires 0.5 times the resources of the first adult, and each child aged 15 years and under requires 0.3 times the resources of the first adult.

linked AIR-Census data, though they were included in the regression analysis in the following section.

Proportions were estimated separately by state/ territory of residence and 10-year age group, from 20-29 years to 70-79 years. We excluded people with missing information on each measure of socioeconomic status for the relevant analyses only (that is, those with missing information on education but not income were still included in the income analysis, for example).

### 2.3 Estimation model and technique

Explanatory variables in the regression model were all taken from the August 2016 Census. For some factors that do not change over time, these are likely to be very similar to the values that would be reported in the 2021 Census (undertaken in mid-August). For other variables, there is likely to have been some change since the 2016 Census, particularly for younger Australians or other groups that experience more frequent change in their circumstances.

Coefficients are estimated using the binary probit model. Results are presented as marginal effects or the difference in the probability of having been vaccinated for that particular explanatory variable, holding constant all other explanatory variables. Marginal effects are estimated relative to someone with a fixed set of 'base case' characteristics. Unless otherwise stated, these base case characteristics are from the modal or most common category.

As described in detail below, we estimate and present results from three models. For all models we control for age in ten-year age groups. Additional explanatory variables included are: sex; state/territory of usual residence as of August 2016; and remoteness of usual residence in August 2016. The additional variables included in the three models are:

- Model 1 – High school completion and post-school qualifications as of August 2016;
- Model 2 – Household equivalised income as of August 2016;
- Model 3 – The three additional sets of variables in Models 1 and 2, as well as a complete set of socioeconomic and demographic control variables (this model focused on those who were not living in non-private dwellings on census night).

We estimate and present results for Models 1 and 2 using the most recent data in the analysis (January 2022). We then re-estimate Model 3 using vaccination status as of July 31$^{st}$ and October 31$^{st}$.

The coefficient estimates that are used to generate the marginal effects, as well as p-values for the hypothesis test of whether the differences are statistically significant are presented in Appendix Table 1 - 3. Because the sample size is so large, almost all the coefficients are statistically significant at the 1 per cent level of significance. For this reason, regardless of statistical significance we focus variables for which the absolute value of the coefficient is equal to or greater than 0.05. For our main estimation, such a coefficient is roughly equivalent to a marginal effect or difference in probability of +/- 0.01 compared to the baseline probability.

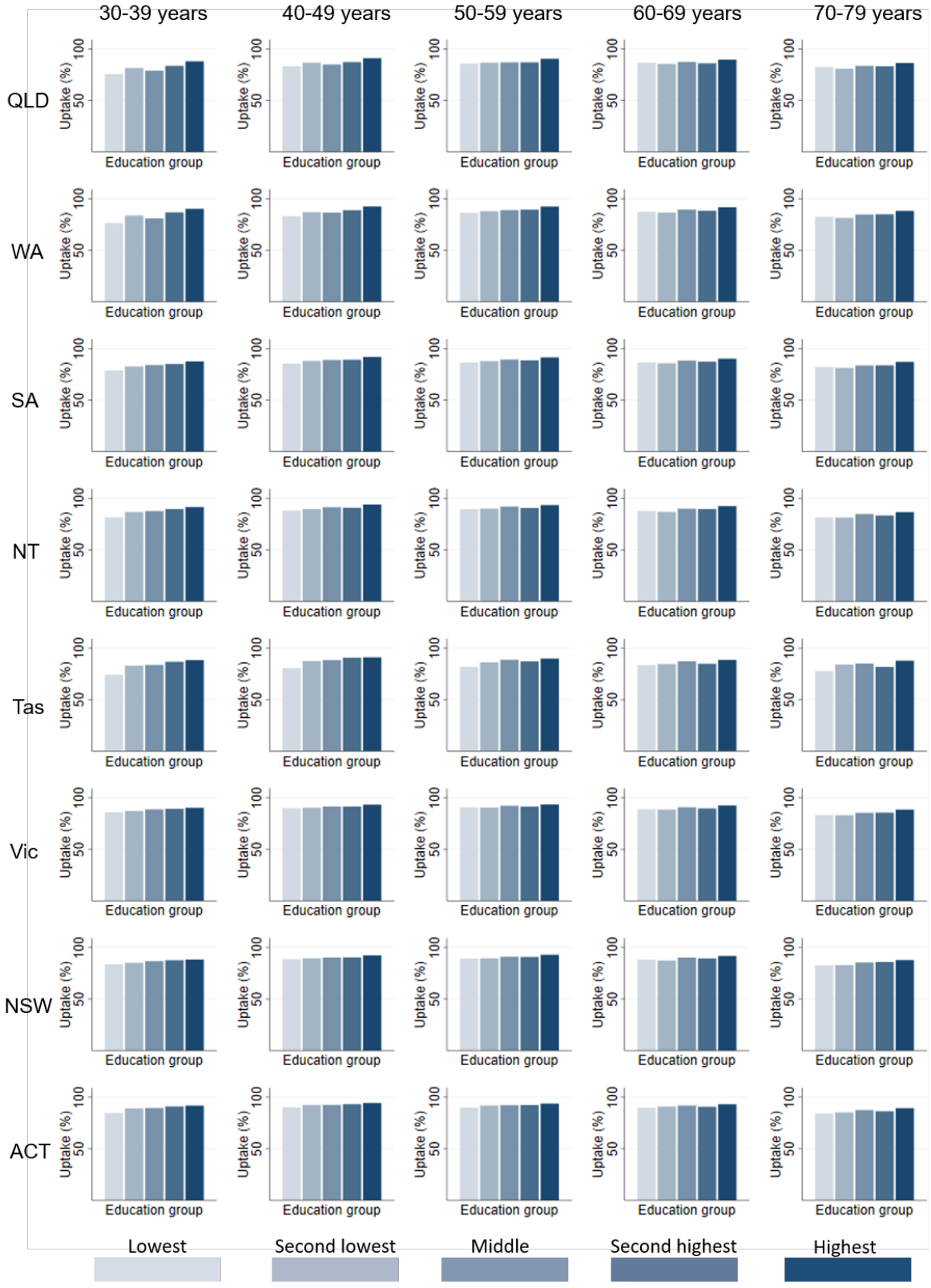
## 3 Describing the relationship between socioeconomic status and vaccine uptake

Before presenting the detailed modelling results (in Section 4), we summarise the relationship between vaccine uptake and three measures of socioeconomic status using descriptive

analysis. That is, without holding constant other observed characteristics. Main results are presented in Figures 2-4 below, with data for January 2022 uptake. These results are replicated in tabular form in the appendix tables, including data for July and October 2021.

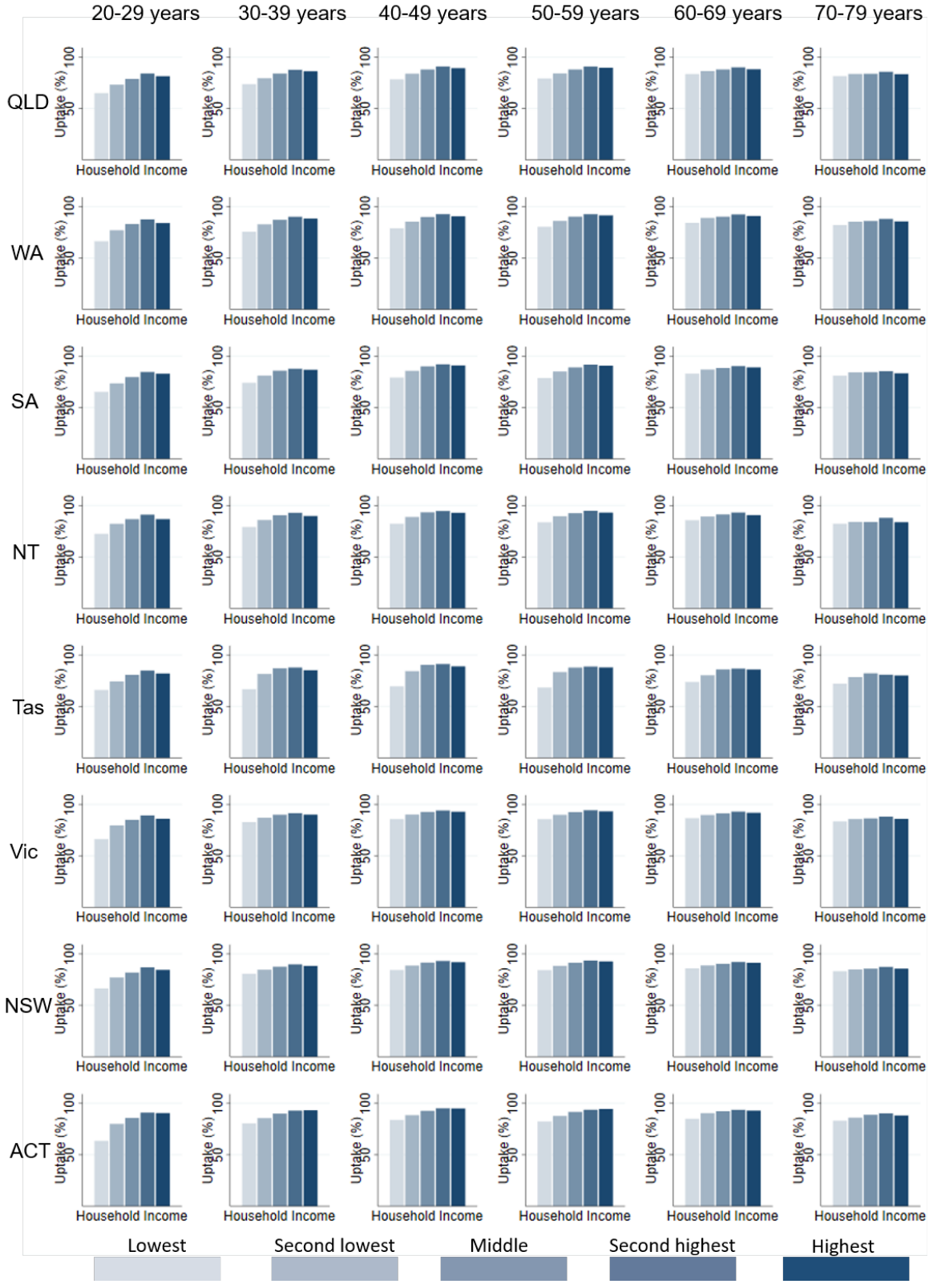
For education (Figure 1), the differences in uptake by highest qualification were much smaller in the states and territories with high overall uptake, and at older ages where uptake was high in all states and territories. The differences in uptake by education at younger ages were substantial in the states and territories with lower vaccination uptake and earlier in the vaccine roll-out period (see appendix tables). Similar patterns of socioeconomic variation in uptake were observed when uptake was estimated in relation to household income and SEIFA IRSD, with inequalities in uptake generally largest when quantified according to the individual- or household-level measures of SEP (education and income) and smallest for the area-level measure (SEIFA-IRSD)

Figure 2. Proportions of the population who have received at least one dose of a COVID-19 vaccination in relation to level of education, by age group and state/ territory, as at 10 January 2022.



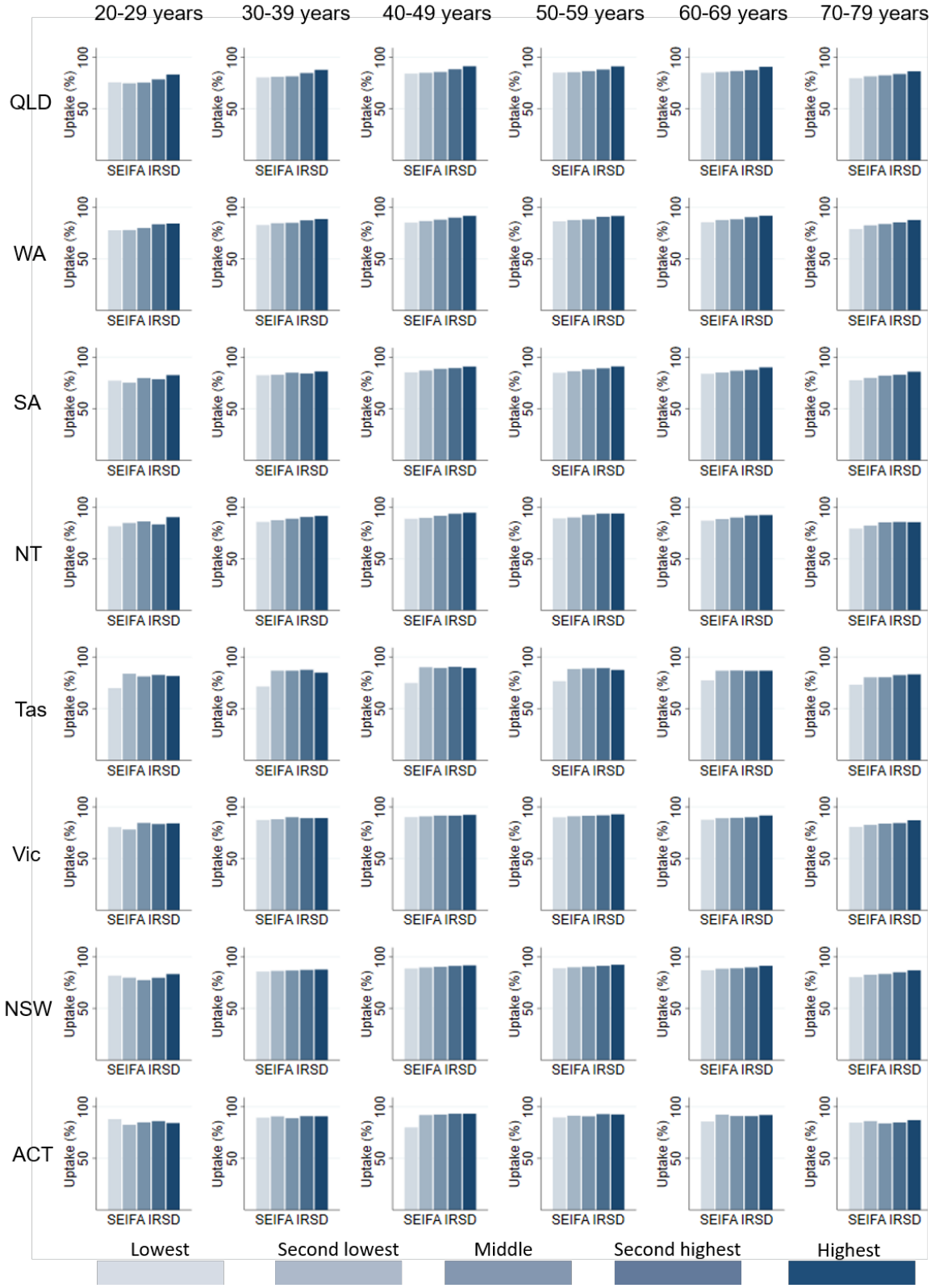

Note: Data available in Table A1a

Figure 3. Proportions of the population who have received at least one dose of a COVID-19 vaccination in relation to categories of equivalised household income, by age group and state/ territory, as at 10 January 2022.




Note: Data available in Table A2a

Figure 4. Proportions of the population who have received at least one dose of a COVID-19 vaccination in relation to quintiles of SEIFA IRSD, by age group and state/ territory, as at 10 January 2022.




Note: Data available in Table A3a

# 4 Factors associated with first dose vaccination

In this section we present the model results and discuss in more detail the relationship between demographic, socioeconomic, and geographic factors and the probability of having had at least one vaccine dose as of the 10th of January, 2022. This discussion is based on the findings from Model 3 (as described in the previous section), with education and income differences discussed in detail in the following section. As this discussion is based on the statistical modelling, it should be kept in mind that differences that are discussed assuming other characteristics in the model are held constant.

Results are presented in Table 1 below, and then discussed in three following sub-sections. The base case individual is aged 25 to 34 (in 2016); male; lives in New South Wales; in a major city; is non-Indigenous; completed Year 12 but does not have a post-school qualification; born in Australia and a citizen of Australia; speaks English only; employed full-time as a professional; is not a carer of someone with a disability and does not have a disability; completed the 2016 Census online; is in a registered marriage; is in a household with equivalised income of $1,000 to $1,249 per week and that is paying off a mortgage on their home; and did not undertake volunteering work in the 12 months preceding the 2016 Census.

The probability of the base case individual having received at least one dose of the vaccination is 0.950 (in the bottom line of the table), which is higher than average uptake of the vaccine for those in the regression sample. Given this quite high baseline probability, it is likely that the estimated marginal effects are going to reasonably small in absolute terms. However, it should be kept in mind that a marginal effect of +/- 0.01 for example with a baseline probability of 0.950 reflects a roughly 20 per cent decrease or increase in the per cent of people not vaccinated, holding all other characteristics constant (that is 0.01/0.05).

Table 1 Coefficients and marginal effects for factors associated with vaccine uptake (January 10th 2022) – Model 3, expanded model

| Explanatory variable | Coefficient | P-value | Marginal effect |
|---|---|---|---|
| Aged 15 to 24 in 2016 | 0.093 | 0 | 0.009 |
| Aged 35 to 44 in 2016 | 0.114 | 0 | 0.011 |
| Aged 45 to 54 in 2016 | 0.150 | 0 | 0.014 |
| Aged 55 to 64 in 2016 | 0.137 | 0 | 0.013 |
| Aged 65 to 74 in 2016 | 0.155 | 0 | 0.014 |
| Aged 75 to 84 in 2016 | -0.143 | 0 | -0.017 |
| Aged 85 or older in 2016 | -0.828 | 0 | -0.158 |
| Female | ----- | ----- | ----- |
| Aboriginal or Torres Strait Islander | -0.108 | 0 | -0.012 |
| Born overseas and arrived in Australia prior to 1976 | 0.040 | 0 | 0.004 |
| Born overseas and arrive in Australia from 1976 to 1985 | 0.014 | 0 | 0.001 |
| Born overseas and arrive in Australia from 1986 to 1995 | 0.042 | 0 | 0.004 |
| Born overseas and arrive in Australia from 1996 to 2005 | 0.068 | 0 | 0.007 |
| Born overseas and arrive in Australia from 2006 to 2016 | -0.185 | 0 | -0.022 |
| Speaks a language other than English at home, and English well or very well | -0.122 | 0 | -0.014 |
| Speaks a language other than English at home, and English not well or not at all | -0.074 | 0 | -0.008 |
| At least one parent born overseas | -0.093 | 0 | -0.010 |
| Was not a citizen in 2016 | -0.396 | 0 | -0.056 |
| Employed part-time in 2016 | -0.113 | 0 | -0.013 |
| Employed but away from work in 2016 | -0.097 | 0 | -0.011 |
| Unemployed in 2016 | -0.272 | 0 | -0.035 |
| Not in the labour force in 2016 | -0.297 | 0 | -0.039 |
| Occupation - Managers | -0.105 | 0 | -0.012 |
| Occupation - Technicians and trades workers | -0.113 | 0 | -0.013 |
| Occupation - Community and personal service workers | -0.012 | 0 | -0.001 |
| Occupation - Clerical administrative workers | -0.044 | 0 | -0.005 |
| Occupation - Sales workers | -0.018 | 0 | -0.002 |
| Occupation - Machinery operators and drivers | -0.068 | 0 | -0.007 |
| Occupation - Labourers | -0.125 | 0 | -0.014 |
| Undertook volunteer work in 12 months prior to 2016 Census | 0.079 | 0 | 0.008 |
| Provide unpaid assistance for someone with a disability | 0.042 | 0 | 0.004 |
| Had a core activity need for assistance | -0.356 | 0 | -0.049 |
| Was in a de facto marriage in 2016 | -0.158 | 0 | -0.019 |
| Was not married in 2016 | -0.214 | 0 | -0.026 |
| Has a postgraduate degree | 0.074 | 0 | 0.007 |
| Has a bachelor degree | 0.029 | 0 | 0.003 |
| Has a diploma or advanced diploma | -0.040 | 0 | -0.004 |
| Has a Certificate III or IV | -0.034 | 0 | -0.004 |
| Has a Certificate I or II | -0.010 | 0.017 | -0.001 |
| Has completed Year 11 or equivalent | 0.003 | 0.084 | 0.000 |
| Has completed Year 10 or equivalent | -0.011 | 0 | -0.001 |
| Has completed Year 9 or equivalent | 0.002 | 0.337 | 0.000 |
| Has completed Year 8 or below | -0.011 | 0 | -0.001 |
| Did not go to school | 0.115 | 0 | 0.011 |

| | | | |
|---|---|---|---|
| Equivalised total household income (weekly) - nil | -0.457 | 0 | -0.068 |
| Equivalised total household income (weekly) - $1-$149 | -0.276 | 0 | -0.036 |
| Equivalised total household income (weekly) - $150-$299 | -0.164 | 0 | -0.019 |
| Equivalised total household income (weekly) - $300-$399 | -0.129 | 0 | -0.015 |
| Equivalised total household income (weekly) - $$400-$499 | -0.099 | 0 | -0.011 |
| Equivalised total household income (weekly) - $500-$649 | -0.090 | 0 | -0.010 |
| Equivalised total household income (weekly) - $650-$799 | -0.065 | 0 | -0.007 |
| Equivalised total household income (weekly) - $800-$999 | -0.033 | 0 | -0.004 |
| Equivalised total household income (weekly) - $1,250-$1,499 | 0.034 | 0 | 0.003 |
| Equivalised total household income (weekly) - $1,500-$1,749 | 0.045 | 0 | 0.005 |
| Equivalised total household income (weekly) - $1,750-$1,999 | 0.057 | 0 | 0.006 |
| Equivalised total household income (weekly) - $2,000-$2,499 | 0.061 | 0 | 0.006 |
| Equivalised total household income (weekly) - $2,500-$2,999 | 0.028 | 0 | 0.003 |
| Equivalised total household income (weekly) - $3,000 or more | 0.015 | 0 | 0.001 |
| Lived in a dwelling that was owned outright | 0.003 | 0.014 | 0.000 |
| Lived in a dwelling that was rented from a real estate agent | -0.174 | 0 | -0.021 |
| Lived in a dwelling that was rented from a state or territory housing authority | -0.102 | 0 | -0.012 |
| Lived in a dwelling that was rented from a person not in the same household | -0.207 | 0 | -0.025 |
| Lived in a dwelling that was rented from a housing co-operative, community, or church group | -0.134 | 0 | -0.015 |
| Lived in a dwelling that was rented from another landlord type | -0.163 | 0 | -0.019 |
| Lived in a dwelling that was rented but landlord type was not stated | -0.171 | 0 | -0.020 |
| Lived in a dwelling with another tenure type | -0.055 | 0 | -0.006 |
| Lived in Victoria in 2016 | 0.069 | 0 | 0.007 |
| Lived in Queensland in 2016 | -0.169 | 0 | -0.020 |
| Lived in South Australia in 2016 | -0.091 | 0 | -0.010 |
| Lived in Western Australia in 2016 | -0.096 | 0 | -0.011 |
| Lived in Tasmania in 2016 | 0.007 | 0.05 | 0.001 |
| Lived in the Northern Territory in 2016 | -0.025 | 0 | -0.003 |
| Lived in the ACT in 2016 | 0.053 | 0 | 0.005 |
| Lived in another territory in 2016 | -0.150 | 0 | -0.018 |
| Lived in an inner regional area in 2016 | -0.032 | 0 | -0.003 |
| Lived in an outer regional area in 2016 | -0.071 | 0 | -0.008 |
| Lived in a remote area in 2016 | -0.141 | 0 | -0.016 |
| Lived in a very remote area in 2016 | -0.138 | 0 | -0.016 |
| Completed 2016 Census using a paper form | -0.132 | 0 | -0.015 |
| Completed 2016 Census using another form | -0.358 | 0 | -0.049 |
| Constant/probability of base case | 1.642 | 0 | 0.950 |

Notes: A p-value of 0 should be interpreted as <0.001. A variable indicating whether or not the respondent was female was included in the model, but was not reported due to restrictions on data release from the ABS Datalab environment.

## 4.1 Demographic factors

For the most part, older Australians were more likely to have been vaccinated though the differences by age are not linear. The age group with the highest vaccination rate (conditional on other characteristics) is those aged 65 to 74 years (in 2016). In the model, those aged 85 years and over appear to have a lower uptake of the vaccine than the base case. This may be due to high mortality rates amongst this group that are not captured in the data, however it may also reflect real differences, for example frailty meaning that vaccination is not recommended or lack of access to vaccinations.

Females were more likely to be vaccinated than males. In order to minimise disclosure risk, this variable was not able to be exported or reported in Table 1. However, it should be noted that this variable was held constant in the remainder of the modelling.

Aboriginal and Torres Strait Islanders were less likely to be vaccinated than non-Indigenous Australians. In the model, the difference between a person who identified as being Aboriginal and/or Torres Strait Islanders in 2016 and a non-Indigenous Australian was -0.012. This is,

however, much smaller than the difference when other characteristics are not controlled for. Combined, the descriptive statistics and modelling suggest that much of the difference observed between the two populations is due to other characteristics (in particular location and socioeconomic characteristics). Nonetheless, the modelling does suggest that differences remain and an otherwise identical Aboriginal and/or Torres Strait Islander Australian still has a lower probability of being vaccinated than a non-Indigenous Australian. It is important therefore to ensure that policy is designed effectively to adequately meet the vaccination needs of Aboriginal and Torres Strait Islander Australians, and is evaluated against the goal of reducing disparities by Indigenous status.

Those born overseas who arrived in Australia prior to 1996 were no more or less likely to have been vaccinated. Those who arrived between 1996 and 2005 were more likely to have been vaccinated (marginal effect of 0.007), whereas more recent arrivals (between 2006 and 2016) were less likely to have been (marginal effect of -0.022).

While the differences by migration status were either small or suggest higher uptake for those who were born overseas, there were large differences by citizenship and to a lesser extent language spoken at home. Those Australians who spoke a language other than English were substantially less likely to have been vaccinated. Specifically, there were differences for those who did not speak English well or at all compared to those who spoke English well or very well with marginal effects of -0.014 and -0.008 respectively. It should be noted, however, that the differences by language spoken at home have declined over the vaccination roll-out, with much larger differences in previous analysis (discussed in a subsequent section).

Those Australians whose parents were born overseas were less likely to have been vaccinated, with a very large difference between citizens and non-citizens (marginal effect of -0.056). Keeping in mind that we are controlling for whether a person was born overseas, year of arrival, and whether or not the person's parents were born overseas, this strongly implies that the greater familiarity with and access to Australian services and the ties to the country that comes from citizenship are an enabler for vaccination. It may also be, however, that those who weren't citizens were more likely to have left the country since the 2016 Census and erroneously reported as not having been vaccinated, when they should be out of scope.

Carers of those with a disability were only slightly more likely to have been vaccinated. Those with a disability themselves were, however, substantially less likely to have been vaccinated. The marginal effect of -0.049 suggest that this potentially vulnerable group have a lower level of protection than the general population, even when other characteristics are taken into account.

The final demographic variable in the model is a person's marital status (as of 2016). Compared to those in a registered marriage, those who were in a de facto marriage and those who were not married were less likely to have been vaccinated.

## 4.2 Employment and occupation

There were some differences between those who were employed part-time and full-time in 2016. In particular, those who were employed part-time had a lower probability of receiving one dose of the vaccine compared to those employed full-time, perhaps because there is less perceived risk at work for those who are working fewer hours.

There were much larger differences though with other labour market statuses. Australians who were unemployed or not in the labour force were significantly and substantially less likely to

have been vaccinated, with marginal effects of -0.035 and -0.039 respectively. Remembering that we are controlling for a rich set of demographic and socioeconomic controls, these large negative marginal effects may represent a belief that vaccination is less important for those who aren't working and therefore not interacting with as large a number of people on a day-to-day basis.

In addition, a person's occupation is as important in explaining their vaccination as whether or not they were employed. There was only a small difference in uptake of the vaccine between the base case (professionals) and community and personal service workers with the latter having a slightly lower probability. All other occupations, however, had a lower probability of having been vaccinated. The lowest probability was for labourers as well as technicians and trade workers. However, there were also relatively low probabilities for managers.

Unpaid work also appears to have an association with vaccination, with those who undertook volunteering in the 12 months leading up to the 2016 Census more likely to have been vaccinated. The marginal effect for this difference is 0.008. This difference may indicate a greater level of altruism for this group, a direct requirement for vaccination for those who are volunteering with vulnerable individuals, or availability of time. Unfortunately, the Census does not include information on the type of volunteering a person did in 2016, nor on the number of hours spent volunteering, so it is not possible to directly test these differences.

### 4.3 Geographic and household differences

Controlling for a rich set of control variables, vaccination probabilities were highest for those who had lived in Victoria and the ACT, with NSW (the base case) and Tasmania and to lesser extent Northern Territory having similar uptake. Three states had substantially lower vaccine uptake than NSW, with Queensland having the lowest. Those who lived in major cities had the highest vaccination probability.

Household wealth, as proxied by home ownership, is also associated with vaccination. Those who own their own home outright do not have a higher or lower vaccination rate than those who are still paying off a mortgage. Renters, however, have a lower vaccination rate than both home-owning groups, with the differences being quite large. Although this was not the case earlier in the vaccination period, there appears to be a difference in vaccination rates (conditional on other characteristics) for those who are renting from a real estate agent compared to a State/Territory housing authority, with the latter having a higher rate of vaccination.

A final measure in the dataset that is of relevance to understanding vaccination uptake is the type of Census 2016 form that a person completed. While these variables are not usually used for data analysis purposes, it would appear to be quite predictive in this particular context. Specifically, the base case is those who completed a household form online. Those who did not complete their Census form online but rather completed a paper form had a lower probability of vaccination. This can be used as a proxy for ability to provide information to government departments online, highlighting that those who may struggle with online forms may be finding it hard to get vaccinated.

## 5 A focus on education

In this section, we explore the association between vaccine uptake and education in more detail. Specifically, we include two sets of dummy variables for high school and post-school

qualifications with six categories for each (including a base or omitted category). In the first model estimated (Model 1), we control for:

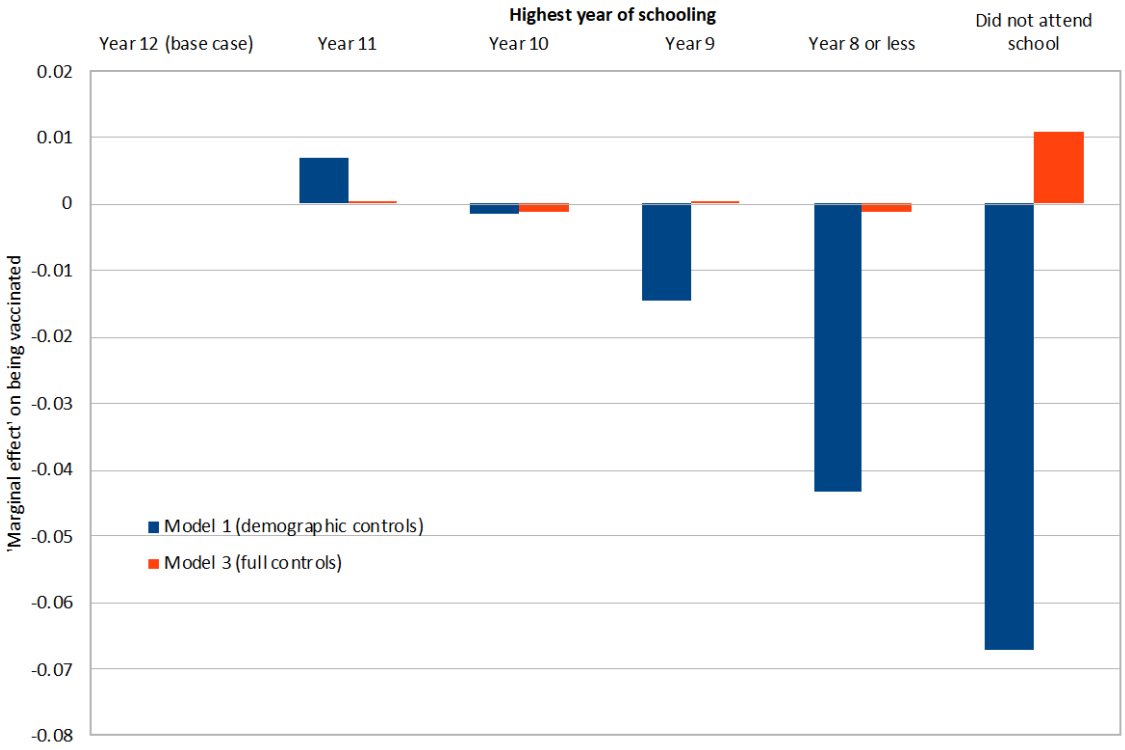
- Age cohort (ten-year age cohorts with those aged 25 to 34 in 2016 (30 to 39 in 2021) as the base category and top-coded at 85 years and over in 2016);
- Sex (males as the base category);
- State/Territory (New South Wales as the base category); and
- Remoteness (resident of a major city as the base category).

The base case education level is someone who has completed Year 12 but does not have a post-school qualification. The other characteristics of the base case are listed above. The expanded model has been described in detail the previous section.

Controlling for the basic demographic and geographic characteristics in Model 1 (as well as post-school completion), there were very large differences in the probability of being vaccinated by highest year of schooling. Compared to the base case individual, someone who had completed Year 11 rather than Year 12 had a probability that was slightly higher. Beyond Year 11, however, people within lower levels of education had lower uptake of the vaccine. The biggest difference was for those who had not attended school, who had a probability that was 0.07 lower than someone who had completed Year 12.

Model 3, however, shows that most of these differences can be explained by other socioeconomic and demographic characteristics. For most education levels, there were no differences. Furthermore, controlling for the full set of controls, those who had not attended school were significantly more likely to have been vaccinated than those who had completed Year 12.

**Figure 5 Relationship between high school education and vaccine uptake, January 10th 2022 – limited and extensive controls**

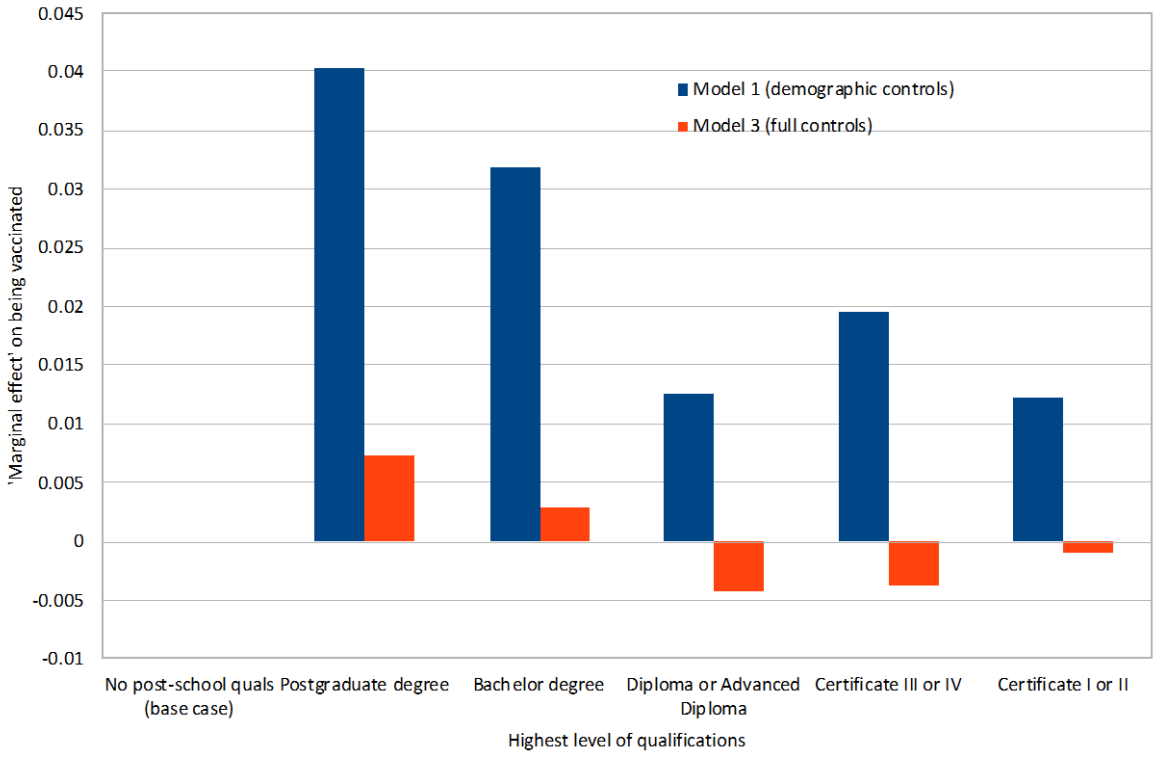


There were similarly large differences by post-school qualifications, particularly in Model 1 (Figure 6). Not all types of post-school qualifications are associated with a high rate of vaccination though.

Looking at the top of the education range those with a postgraduate degree have a probability of having been vaccinated that is 0.040 higher than those with no qualifications (controlling for demographics and high school education) and 0.007 higher when we control for the more expanded set of characteristics. The association with bachelor-level qualifications was slightly weaker (0.032 higher in Model 1 and 0.003 in Model 2). Those who had completed university qualifications as of August 2016 were more likely to have been vaccinated than those who hadn't, even when we control for a range of other characteristics.

The relationship with non-university qualifications is weaker and somewhat more complicated. Those who have a Diploma or Advanced Diploma or who had a Certificate were more likely to have been vaccinated in Model 1 (0.013) but is negative in Model 3. Not all forms of education were predictive of high uptake of the vaccine.

**Figure 6 Relationship between post-school education and vaccine uptake, January 10th 2022 – limited and extensive controls**




The fact that the differences by education were much lower when other characteristics are controlled for (or sometimes has the opposite relationship) does not mean that education is not an important component of vaccine uptake. Rather, it highlights the way in which education can potentially feed into other aspects of the vaccine decision.

A potential reason for the relationship between post-school qualifications and vaccine uptake is a person's occupation. As described in the previous section, there is a very strong relationship between occupation and vaccine uptake with professionals and community and personal service workers having the highest probability. The results presented for Model 2 control for these differences and still the relationship with post-school qualifications remain.

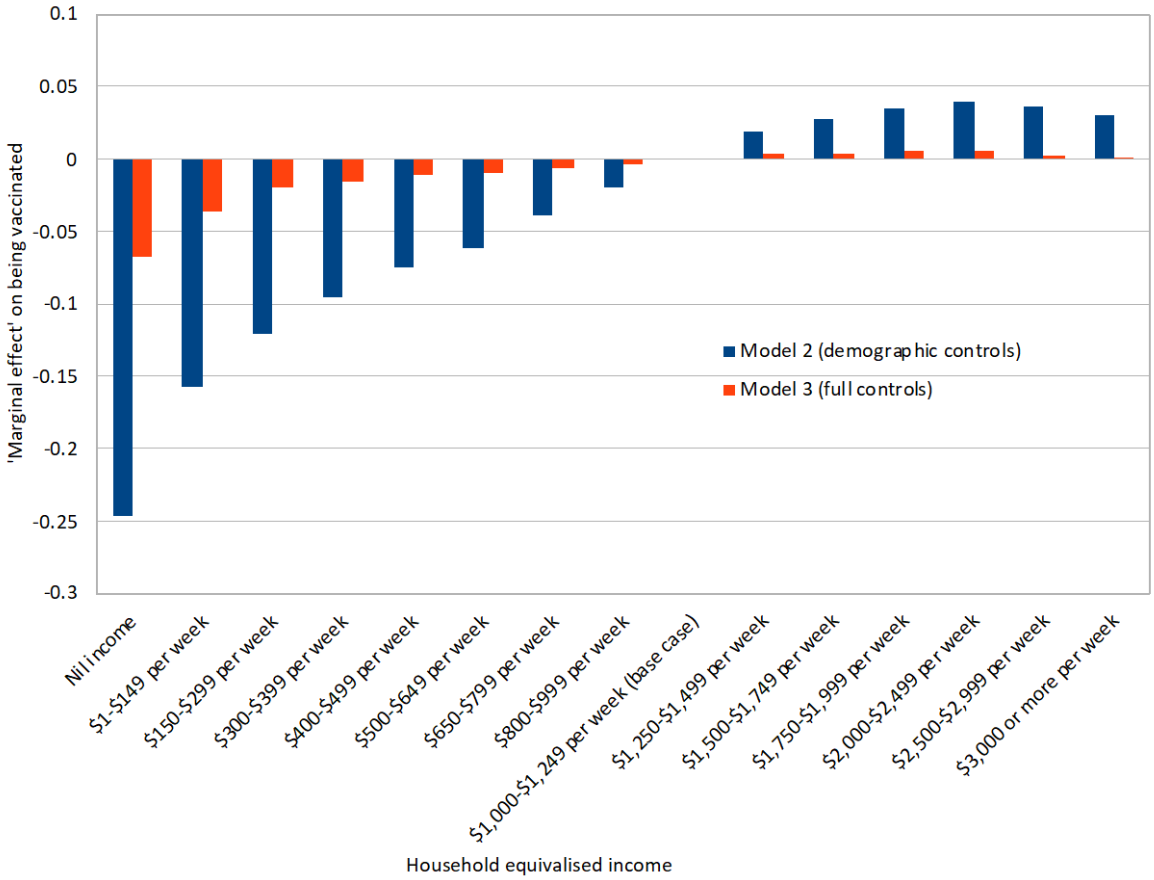
Furthermore, in a separate model where we control for more detailed, four-digit occupation (using a random effects linear model) and focus on those who were employed in August 2016 these differences by education remain (results not shown). Variation in education by occupation is not the only reason for variation in vaccination by education.

# 6 A focus on household income

One of the mechanisms through which education can impact on vaccine uptake is through a person's access to economic resources. Those with higher levels of education tend to be more financially advantaged than those with lower levels of education. It is not surprising then that there is a strong relationship between household equivalised income and vaccine uptake, given the results presented in the previous section. Using the categories available in the 2016 Census, in Figure 7 we can see that those who lived in households with very low incomes were substantially less likely to have been vaccinated than the middle-income category, who were in turn less likely to be vaccinated than the high-income categories. These differences decrease somewhat when other observable characteristics are controlled for, but still stay quite large, particularly at the lower part of the income distribution. Specifically, Model 2 includes the demographic and geographic characteristics listed above (but not education) whereas Model 3 is the same estimation as in the previous section.

Even controlling for a range of other characteristics (in Model 3), those in the fourth income category ($300-$399 per week, which includes the 10$^{th}$ percentile person) had a probability that was 0.015 lower than the omitted income category ($1,000 to $1,249 per week, which includes the median person). At the other end of the distribution, those in the third last income category ($2,000 to $2,499 per week, which includes the 90$^{th}$ percentile person) had a vaccination rate that was 0.006 higher than the base category.

Figure 7 Relationship between household equivalised income and vaccine uptake, January 10th 2022 – limited and extensive controls




# 7 Changes in the relationship between socioeconomic status and vaccine uptake

As discussed in the introduction to this paper, there has been a continued increase in uptake of COVID-19 vaccines in Australia since the middle of 2021. Unlike some other comparable countries, vaccine uptake levelled off at quite high rates. A key question that arises then is whether this continued uptake has been consistent across the socioeconomic distribution, or whether there has been a convergence/divergence by key measures. One way to capture this could be through a 'time to vaccination' analysis. Another way though is to identify discrete time periods and measure the differences by key characteristics at those particular points in time. Using this approach, there appears to have been a substantial convergence by education, but a more moderate convergence by household income, particularly at the bottom of the income distribution.

In Table 2, we give marginal effects for the factors associated with vaccine uptake for three time periods (crude proportions are in Appendix tables). We focus on the models that control for the full set of control variables (Model 3), estimated for vaccination uptake as of July 31st, October 31st, and January 10th (2022). The base case probability for these three time points are 0.239, 0.933, and 0.950 respectively. Results are summarised in Figures 7 to 9 as marginal effects or the differences in probabilities changing the particular characteristics (high school

education, post-school education, and income respectively), whilst holding all other variables constant.

What the results demonstrate is that in July 2021, there was a much larger relationship between high school education and vaccine uptake than there was in late October and January 2022 in particular. The gap for Years 11 and 12 more than halved (controlling for other characteristics) between July and October, with the gap for lower levels of education decreasing by even more. By January 2022, there were essentially no differences by high school education, with those who have never attended school (a very small per cent of the population) having a higher probability.

There has also been a decline in post-school education gaps. For degree qualifications, the differences have remained positive, but for other qualifications there is now lower rates of vaccination for those with a Diploma or a Certificate.

Figure 8 Relationship between high school education and vaccine uptake, July 2021 to January 2022

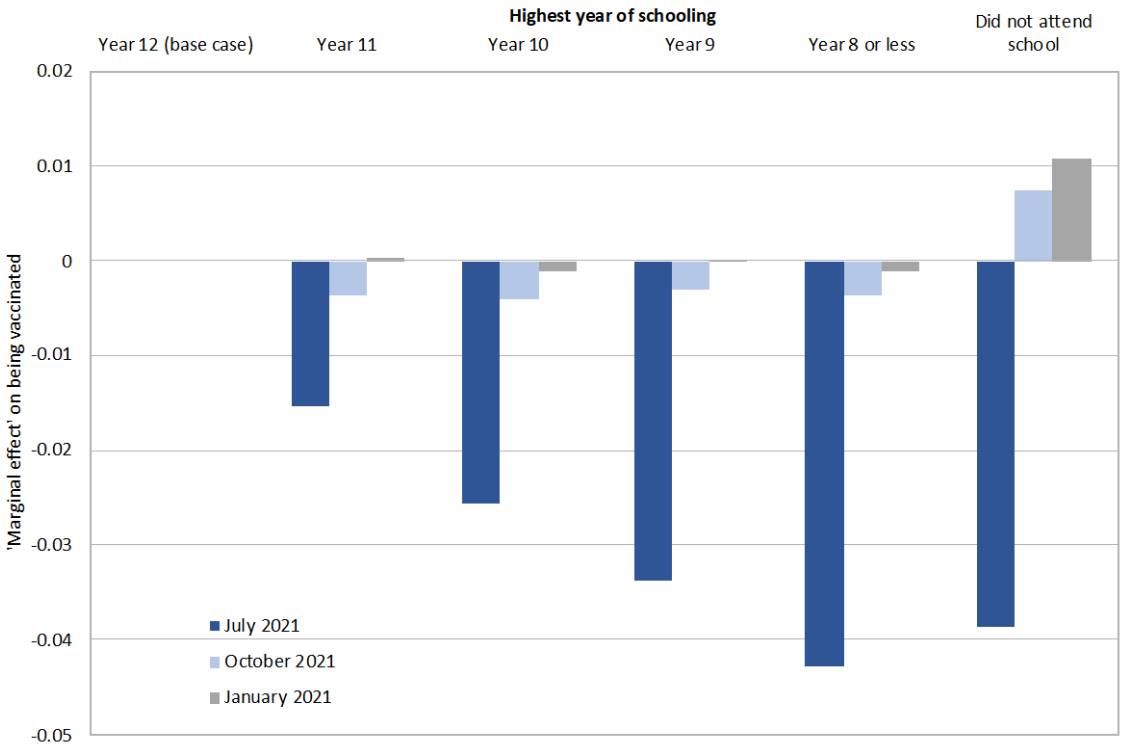
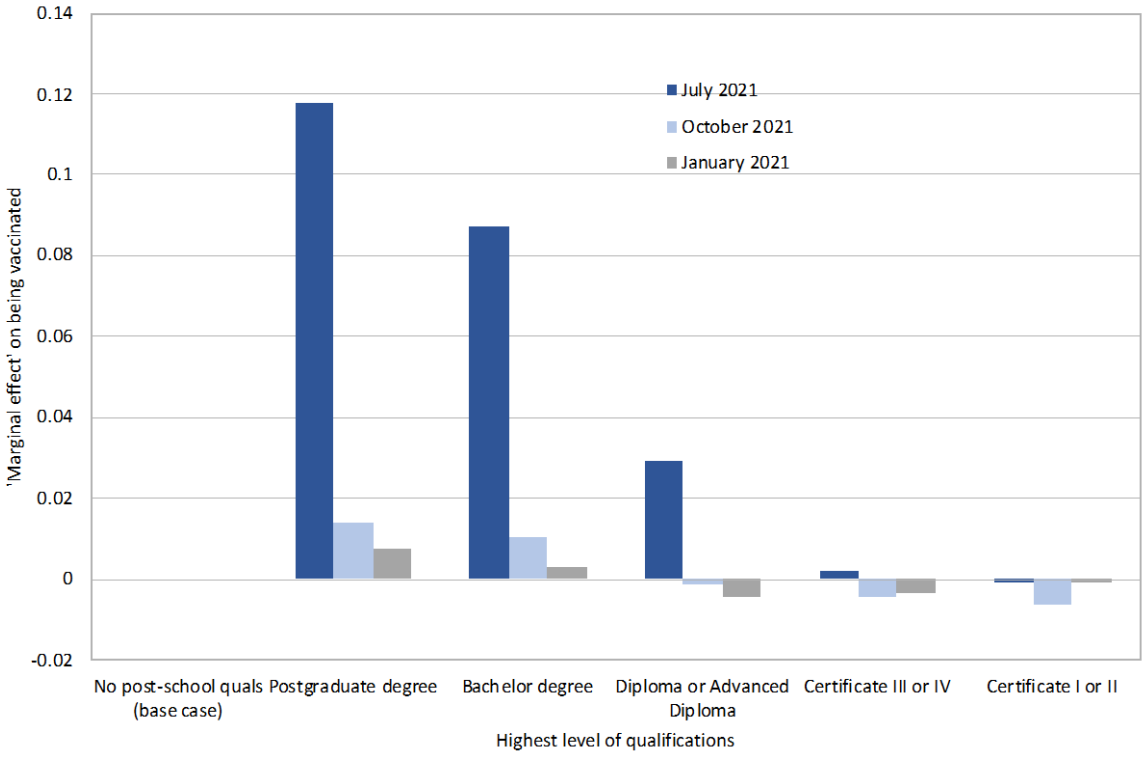



Figure 9 Relationship between post-school education and vaccine uptake, July 2021 to January 2022



There is a slightly more complex picture for the change in the relationship with household equivalised income (Figure 10). There has been a small decline between July 2021 and January 2022 in the marginal effects of being in the lowest income categories compared to the middle income group, though the marginal effects are comparable. The marginal effects for those at the upper end of the income distribution have declined substantially though, particularly for those who lived in households with an equivalised income of $1,750 per week or more.

Figure 10 Relationship between household equivalised income and vaccine uptake, July 2021 to January 2022

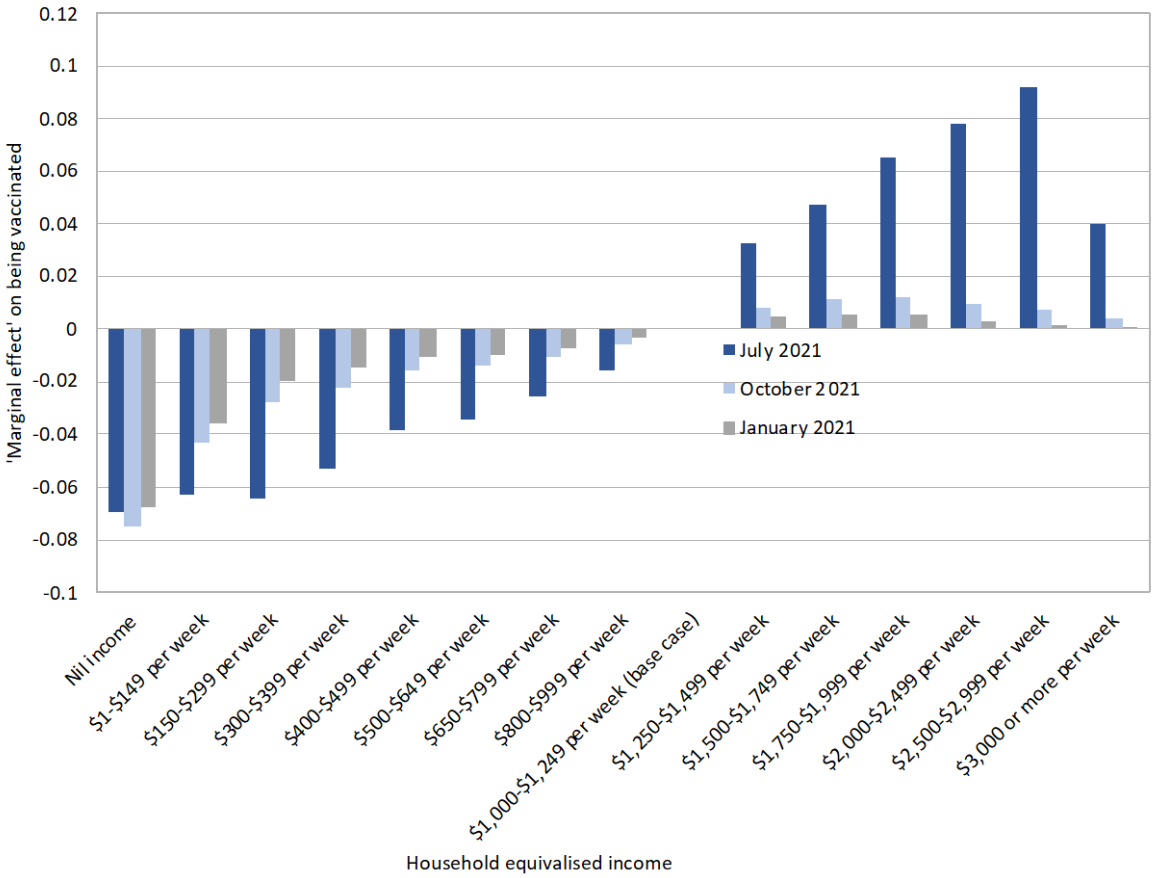


Table 2 Marginal effects for factors associated with vaccine uptake (July 2021 to January 2022) – Model 3, expanded model

| Explanatory variable | Jul. '21 | Oct. '21 | Jan. '22 |
|---|---|---|---|
| Aged 15 to 24 in 2016 | 0.014 | 0.005 | 0.009 |
| Aged 35 to 44 in 2016 | 0.254 | 0.020 | 0.011 |
| Aged 45 to 54 in 2016 | 0.387 | 0.029 | 0.014 |
| Aged 55 to 64 in 2016 | 0.508 | 0.033 | 0.013 |
| Aged 65 to 74 in 2016 | 0.600 | 0.037 | 0.014 |
| Aged 75 to 84 in 2016 | 0.576 | 0.011 | -0.017 |
| Aged 85 or older in 2016 | 0.408 | -0.116 | -0.158 |
| Female | ----- | ----- | ----- |
| Aboriginal or Torres Strait Islander | -0.030 | -0.029 | -0.012 |
| Born overseas and arrived in Australia prior to 1976 | -0.006 | 0.001 | 0.004 |
| Born overseas and arrive in Australia from 1976 to 1985 | 0.011 | 0.000 | 0.001 |
| Born overseas and arrive in Australia from 1986 to 1995 | 0.021 | 0.004 | 0.004 |
| Born overseas and arrive in Australia from 1996 to 2005 | 0.054 | 0.009 | 0.007 |
| Born overseas and arrive in Australia from 2006 to 2016 | 0.085 | -0.012 | -0.022 |
| Speaks a language other than English at home, and English well or very well | -0.053 | -0.019 | -0.014 |
| Speaks a language other than English at home, and English not well or not at all | -0.113 | -0.019 | -0.008 |
| At least one parent born overseas | -0.022 | -0.012 | -0.010 |
| Was not a citizen in 2016 | -0.061 | -0.060 | -0.056 |
| Employed part-time in 2016 | 0.012 | -0.011 | -0.013 |
| Employed but away from work in 2016 | 0.006 | -0.010 | -0.011 |
| Unemployed in 2016 | -0.078 | -0.049 | -0.035 |
| Not in the labour force in 2016 | -0.057 | -0.046 | -0.039 |
| Occupation – Managers | -0.049 | -0.016 | -0.012 |
| Occupation – Technicians and trades workers | -0.087 | -0.025 | -0.013 |
| Occupation – Community and personal service workers | 0.009 | -0.005 | -0.001 |
| Occupation – Clerical administrative workers | -0.043 | -0.008 | -0.005 |
| Occupation – Sales workers | -0.061 | -0.007 | -0.002 |
| Occupation – Machinery operators and drivers | -0.092 | -0.021 | -0.007 |
| Occupation – Labourers | -0.077 | -0.026 | -0.014 |
| Undertook volunteer work in 12 months prior to 2016 Census | 0.050 | 0.012 | 0.008 |
| Provide unpaid assistance for someone with a disability | 0.009 | 0.004 | 0.004 |
| Had a core activity need for assistance | -0.057 | -0.054 | -0.049 |
| Was in a de facto marriage in 2016 | -0.048 | -0.028 | -0.019 |
| Was not married in 2016 | -0.045 | -0.032 | -0.026 |
| Has a postgraduate degree | 0.118 | 0.014 | 0.007 |
| Has a bachelor degree | 0.087 | 0.010 | 0.003 |
| Has a diploma or advanced diploma | 0.029 | -0.001 | -0.004 |
| Has a Certificate III or IV | 0.002 | -0.005 | -0.004 |
| Has a Certificate I or II | -0.001 | -0.006 | -0.001 |
| Has completed Year 11 or equivalent | -0.015 | -0.004 | 0.000 |
| Has completed Year 10 or equivalent | -0.026 | -0.004 | -0.001 |
| Has completed Year 9 or equivalent | -0.034 | -0.003 | 0.000 |
| Has completed Year 8 or below | -0.043 | -0.004 | -0.001 |
| Did not go to school | -0.038 | 0.008 | 0.011 |
| Equivalised total household income (weekly) – nil | -0.070 | -0.075 | -0.068 |
| Equivalised total household income (weekly) - $1-$149 | -0.063 | -0.043 | -0.036 |
| Equivalised total household income (weekly) - $150-$299 | -0.064 | -0.027 | -0.019 |
| Equivalised total household income (weekly) - $300-$399 | -0.053 | -0.022 | -0.015 |
| Equivalised total household income (weekly) - $$400-$499 | -0.039 | -0.015 | -0.011 |
| Equivalised total household income (weekly) - $500-$649 | -0.034 | -0.014 | -0.010 |
| Equivalised total household income (weekly) - $650-$799 | -0.026 | -0.010 | -0.007 |
| Equivalised total household income (weekly) - $800-$999 | -0.015 | -0.006 | -0.004 |
| Equivalised total household income (weekly) - $1,250-$1,499 | 0.017 | 0.005 | 0.003 |
| Equivalised total household income (weekly) - $1,500-$1,749 | 0.033 | 0.008 | 0.005 |
| Equivalised total household income (weekly) - $1,750-$1,999 | 0.048 | 0.011 | 0.006 |
| Equivalised total household income (weekly) - $2,000-$2,499 | 0.065 | 0.012 | 0.006 |
| Equivalised total household income (weekly) - $2,500-$2,999 | 0.078 | 0.010 | 0.003 |
| Equivalised total household income (weekly) - $3,000 or more | 0.092 | 0.007 | 0.001 |

| | | | |
|---|---|---|---|
| Lived in a dwelling that was owned outright | 0.040 | 0.004 | 0.000 |
| Lived in a dwelling that was rented from a real estate agent | -0.026 | -0.027 | -0.021 |
| Lived in a dwelling that was rented from a state or territory housing authority | -0.022 | -0.018 | -0.012 |
| Lived in a dwelling that was rented from a person not in the same household | -0.025 | -0.030 | -0.025 |
| Lived in a dwelling that was rented from a housing co-operative, community, or church group | 0.005 | -0.016 | -0.015 |
| Lived in a dwelling that was rented from another landlord type | -0.004 | -0.022 | -0.019 |
| Lived in a dwelling that was rented but landlord type was not stated | -0.015 | -0.022 | -0.020 |
| Lived in a dwelling with another tenure type | 0.054 | -0.002 | -0.006 |
| Lived in Victoria in 2016 | 0.025 | 0.006 | 0.007 |
| Lived in Queensland in 2016 | -0.045 | -0.078 | -0.020 |
| Lived in South Australia in 2016 | -0.023 | -0.060 | -0.010 |
| Lived in Western Australia in 2016 | -0.049 | -0.078 | -0.011 |
| Lived in Tasmania in 2016 | 0.036 | -0.029 | 0.001 |
| Lived in the Northern Territory in 2016 | 0.065 | -0.035 | -0.003 |
| Lived in the ACT in 2016 | 0.014 | 0.005 | 0.005 |
| Lived in another territory in 2016 | 0.145 | -0.028 | -0.018 |
| Lived in an inner regional area in 2016 | -0.013 | -0.009 | -0.003 |
| Lived in an outer regional area in 2016 | -0.017 | -0.016 | -0.008 |
| Lived in a remote area in 2016 | -0.015 | -0.023 | -0.016 |
| Lived in a very remote area in 2016 | 0.019 | -0.017 | -0.016 |
| Completed 2016 Census using a paper form | -0.043 | -0.021 | -0.015 |
| Completed 2016 Census using another form | -0.021 | -0.056 | -0.049 |
| Constant/probability of base case | 0.239 | 0.933 | 0.950 |

Notes: A p-value of 0 should be interpreted as <0.001. A variable indicating whether or not the respondent was female was included in the model, but was not reported due to restrictions on data release from the ABS DataLab environment.

# 8 Concluding comments

At the time of writing, two-dose vaccination in Australia had reached a very high level, and the policy focus had started to shift towards booster or third-dose uptake. The data summarised in this paper suggests though that there are groups in the population with lower levels of first-dose vaccine uptake than the national average would suggest.

Some of the groups that were shown to have lower uptake of the vaccine relative to the general population were Aboriginal and Torres Strait Islander Australians, those who speak a language other than English, non-citizens, those with a core activity need for assistance, those who were not employed, certain occupation groups, and those who lived in Queensland and Western Australia. Some of these differences have stayed reasonably constant over the vaccination period, but others (for example those who speak a language other than English) had converged with the rest of the population as the vaccine rollout as progressed.

The focused analysis also showed that those with low education and those at the lower part of the income distribution were less likely to have been vaccinated than those with high levels of education or those in more advantaged households at the earlier parts of the vaccine roll-out, but that some of these differences had diminished over time.

One of the challenges in targeting some of the groups identified in this paper is that those from disadvantaged backgrounds identified in this paper are not all clustered in the same area. There are low education/low income individuals living in relatively advantaged areas, and there are high education/high income individuals living in relatively disadvantaged areas.

A key finding from the analysis in this paper though, was that there appears to have been some convergence in vaccine uptake by socioeconomic status over time. While the direction of the associations have stayed more-or-less the same, the estimated marginal effects have

decreased substantially for high school education, and to a lesser extent for post-school qualifications. One slight exception to this convergence though is the differences for those at the lower end of the income distribution, which have not changed by much over the period.

There are three key limitations to the analysis presented in this paper. The first is that the explanatory variables in the modelling are based on data from the 2016 Census, which for some individuals and for some variables may not reflect the person's circumstances as of 2021. In ongoing analysis, variables from other data assets in the AIR-MADIP environment are being incorporated to supplement the Census variables (for example tax data to capture more recent income status). A second limitation is that the analysis does not include those who migrated into Australia or who reached adulthood since the 2016 Census. Availability of data from the 2021 Census would help to overcome these limitations, once available.

A third limitation is that some of the sample who are assumed to be in-scope may actually be out of scope, either because they migrated out of the country or died since the 2016 Census and have not been identified as such in the AIR-MADIP data. More up-to-date deaths and migration data may minimise these biases.

The final concluding comment from this paper is to highlight the value of the linked AIR-MADIP data. Apart from Indigenous status and SEIFA, none of the key socioeconomic variables that were found to predict vaccine uptake are available on the unlinked data. As discussed, area-level characteristics alone are not sufficient in explaining vaccine uptake. Vaccine policy in Australia needs to pay close attention to the findings from the linked data, both in terms of the current COVID-19 vaccine program, but also the broader immunisation program in Australia, both pre and post-COVID.

# Appendix Tables

Table A1a. Proportions of the population who have received at least one dose of a COVID-19 vaccination by 10 January 2022 in relation to level of education, and differences in proportions between people in the lowest and the highest and education groups, by age group and state/ territory.

| | Highest level of education | | | | | |
|---|---|---|---|---|---|---|
| | No Yr 12 & no other quals (lowest) | Yr 12 & no other non-school qual | No Yr 12 & other non-school qual | Yr 12 & other non-school qual | Bachelor's degree (highest) | Percentage point difference (high – low) |
| Qld | | | | | | |
| 20-29 years | 68.3 | 77.7 | 73.8 | 80.1 | 80.6 | 12.3 |
| 30-39 years | 75.6 | 81.5 | 78.8 | 83.6 | 87.9 | 12.3 |
| 40-49 years | 83.2 | 86.7 | 84.9 | 87.2 | 91.0 | 7.8 |
| 50-59 years | 85.8 | 86.7 | 86.9 | 86.9 | 90.4 | 4.6 |
| 60-69 years | 86.5 | 85.5 | 87.3 | 86.0 | 89.5 | 3.0 |
| 70-79 years | 82.5 | 80.8 | 83.5 | 83.2 | 86.2 | 3.8 |
| WA | | | | | | |
| 20-29 years | 72.3 | 78.3 | 80.0 | 80.5 | 81.5 | 9.3 |
| 30-39 years | 78.6 | 82.4 | 83.8 | 84.9 | 87.4 | 8.8 |
| 40-49 years | 85.2 | 87.9 | 88.8 | 89.0 | 91.7 | 6.5 |
| 50-59 years | 86.3 | 87.6 | 89.2 | 88.4 | 91.3 | 5.0 |
| 60-69 years | 86.3 | 85.6 | 88.2 | 87.1 | 90.0 | 3.7 |
| 70-79 years | 81.9 | 81.1 | 83.4 | 83.6 | 86.9 | 4.9 |
| SA | | | | | | |
| 20-29 years | 70.8 | 80.3 | 77.2 | 82.5 | 83.7 | 12.9 |
| 30-39 years | 76.2 | 83.7 | 80.9 | 86.7 | 90.1 | 13.9 |
| 40-49 years | 83.1 | 86.9 | 86.4 | 88.9 | 92.4 | 9.3 |
| 50-59 years | 86.2 | 87.8 | 88.9 | 89.3 | 92.3 | 6.2 |
| 60-69 years | 87.2 | 86.5 | 89.3 | 88.2 | 91.7 | 4.5 |
| 70-79 years | 82.5 | 81.3 | 84.6 | 84.8 | 88.1 | 5.6 |
| NT | | | | | | |
| 20-29 years | 73.5 | 80.0 | 82.9 | 83.1 | 81.5 | 8.0 |
| 30-39 years | 73.8 | 82.7 | 83.4 | 86.6 | 88.1 | 14.3 |
| 40-49 years | 80.4 | 87.3 | 88.1 | 90.5 | 90.8 | 10.5 |
| 50-59 years | 81.6 | 86.0 | 88.5 | 86.9 | 89.6 | 8.1 |

| | Highest level of education | | | | | |
|---|---|---|---|---|---|---|
| | No Yr 12 & no other quals (lowest) | Yr 12 & no other non-school qual | No Yr 12 & other non-school qual | Yr 12 & other non-school qual | Bachelor's degree (highest) | Percentage point difference (high – low) |
| 60-69 years | 83.3 | 84.3 | 87.0 | 84.6 | 88.4 | 5.1 |
| 70-79 years | 77.6 | 83.8 | 84.8 | 81.6 | 87.6 | 10.0 |
| Tas | | | | | | |
| 20-29 years | 75.8 | 84.1 | 84.2 | 87.0 | 86.1 | 10.3 |
| 30-39 years | 81.4 | 86.6 | 87.5 | 89.5 | 91.3 | 9.9 |
| 40-49 years | 87.9 | 89.4 | 91.2 | 90.7 | 93.8 | 5.9 |
| 50-59 years | 89.4 | 89.9 | 91.8 | 90.4 | 93.3 | 3.9 |
| 60-69 years | 87.6 | 86.7 | 89.8 | 89.5 | 92.3 | 4.7 |
| 70-79 years | 81.3 | 81.2 | 84.6 | 83.2 | 86.5 | 5.1 |
| NSW | | | | | | |
| 20-29 years | 82.5 | 80.5 | 87.4 | 85.6 | 80.1 | -2.4 |
| 30-39 years | 85.9 | 87.1 | 88.7 | 89.2 | 90.1 | 4.2 |
| 40-49 years | 89.8 | 90.2 | 91.3 | 91.3 | 93.2 | 3.4 |
| 50-59 years | 90.5 | 90.4 | 92.2 | 91.3 | 93.4 | 2.9 |
| 60-69 years | 88.9 | 88.4 | 90.7 | 89.6 | 92.4 | 3.5 |
| 70-79 years | 83.2 | 83.0 | 85.3 | 85.5 | 88.4 | 5.2 |
| VIC | | | | | | |
| 20-29 years | 79.3 | 79.9 | 84.7 | 83.6 | 78.6 | -0.7 |
| 30-39 years | 83.7 | 85.1 | 86.7 | 87.5 | 88.3 | 4.5 |
| 40-49 years | 88.6 | 89.4 | 90.3 | 90.4 | 92.2 | 3.6 |
| 50-59 years | 89.1 | 89.4 | 91.0 | 90.8 | 92.9 | 3.7 |
| 60-69 years | 88.0 | 87.2 | 90.2 | 89.3 | 91.7 | 3.7 |
| 70-79 years | 82.7 | 82.8 | 85.4 | 86.0 | 87.7 | 5.0 |
| ACT | | | | | | |
| 20-29 years | 82.7 | 83.2 | 87.2 | 88.4 | 84.6 | 1.9 |
| 30-39 years | 84.6 | 89.1 | 89.5 | 91.0 | 91.8 | 7.2 |
| 40-49 years | 90.2 | 92.4 | 92.5 | 93.2 | 94.3 | 4.2 |
| 50-59 years | 89.9 | 91.9 | 92.2 | 92.4 | 93.8 | 3.9 |
| 60-69 years | 89.7 | 91.0 | 91.9 | 90.7 | 93.2 | 3.4 |

| | Highest level of education | | | | | |
|---|---|---|---|---|---|---|
| | No Yr 12 & no other quals (lowest) | Yr 12 & no other non-school qual | No Yr 12 & other non-school qual | Yr 12 & other non-school qual | Bachelor's degree (highest) | Percentage point difference (high – low) |
| 70-79 years | 84.1 | 85.2 | 87.5 | 86.3 | 89.4 | 5.2 |

Note: States/ Territories have been ordered from lowest to highest proportion who have received at least one vaccination.

Table A1b. Proportions of the population who have received at least one dose of a COVID-19 vaccination by 31 October 2021 in relation to level of education, and differences in proportions between people in the lowest and the highest and education groups, by age group and state/ territory.

| | Highest level of education | | | | | |
|---|---|---|---|---|---|---|
| | No Yr 12 & no other quals (lowest) | Yr 12 & no other non-school qual | No Yr 12 & other non-school qual | Yr 12 & other non-school qual | Bachelor's degree (highest) | Percentage point difference (high – low) |
| Qld | | | | | | |
| 20-29 years | 42.3 | 61.3 | 50.2 | 62.0 | 74.4 | 32.1 |
| 30-39 years | 56.7 | 67.9 | 62.2 | 71.4 | 82.8 | 26.1 |
| 40-49 years | 71.4 | 78.4 | 75.5 | 80.0 | 87.6 | 16.2 |
| 50-59 years | 79.3 | 82.3 | 82.1 | 83.1 | 88.2 | 8.8 |
| 60-69 years | 83.5 | 82.9 | 84.9 | 83.8 | 88.2 | 4.7 |
| 70-79 years | 80.3 | 78.8 | 82.1 | 81.7 | 85.2 | 4.9 |
| WA | | | | | | |
| 20-29 years | 44.2 | 61.2 | 53.9 | 62.2 | 74.2 | 29.9 |
| 30-39 years | 57.8 | 68.4 | 65.7 | 72.3 | 81.3 | 23.5 |
| 40-49 years | 71.7 | 78.4 | 77.6 | 80.8 | 87.7 | 16.0 |
| 50-59 years | 78.5 | 81.6 | 82.9 | 83.4 | 88.4 | 9.9 |
| 60-69 years | 82.3 | 82.1 | 85.0 | 84.0 | 88.1 | 5.8 |
| 70-79 years | 79.0 | 78.5 | 81.4 | 81.6 | 85.3 | 6.3 |
| SA | | | | | | |
| 20-29 years | 46.4 | 66.7 | 55.5 | 66.7 | 77.3 | 30.8 |
| 30-39 years | 58.8 | 71.6 | 65.6 | 76.4 | 85.1 | 26.2 |
| 40-49 years | 71.5 | 78.6 | 77.5 | 82.4 | 89.0 | 17.5 |
| 50-59 years | 79.2 | 82.2 | 84.0 | 85.3 | 90.2 | 11.0 |
| 60-69 years | 83.2 | 83.1 | 86.7 | 85.8 | 90.2 | 7.0 |
| 70-79 years | 79.0 | 78.6 | 82.7 | 82.9 | 86.9 | 7.9 |
| NT | | | | | | |
| 20-29 years | 52.5 | 68.1 | 64.7 | 72.1 | 77.5 | 25.0 |
| 30-39 years | 57.4 | 73.7 | 71.3 | 78.2 | 84.9 | 27.5 |
| 40-49 years | 69.9 | 80.7 | 80.5 | 84.8 | 88.1 | 18.2 |
| 50-59 years | 75.7 | 81.2 | 85.1 | 84.1 | 88.1 | 12.4 |
| 60-69 years | 80.1 | 81.8 | 84.7 | 81.8 | 87.8 | 7.7 |
| 70-79 years | 73.8 | 80.9 | 83.3 | 77.9 | 86.7 | 12.9 |

| | Highest level of education | | | | | |
|---|---|---|---|---|---|---|
| | No Yr 12 & no other quals (lowest) | Yr 12 & no other non-school qual | No Yr 12 & other non-school qual | Yr 12 & other non-school qual | Bachelor's degree (highest) | Percentage point difference (high – low) |
| Tas | | | | | | |
| 20-29 years | 53.5 | 72.6 | 64.7 | 74.2 | 82.3 | 28.9 |
| 30-39 years | 66.5 | 76.3 | 75.7 | 81.5 | 88.4 | 21.9 |
| 40-49 years | 79.2 | 84.0 | 85.2 | 86.3 | 92.1 | 12.8 |
| 50-59 years | 84.9 | 86.4 | 88.5 | 87.6 | 91.9 | 7.0 |
| 60-69 years | 84.7 | 84.2 | 88.0 | 88.0 | 91.1 | 6.3 |
| 70-79 years | 79.0 | 78.9 | 83.0 | 81.7 | 85.7 | 6.7 |
| NSW | | | | | | |
| 20-29 years | 77.4 | 78.6 | 83.7 | 83.4 | 79.1 | 1.8 |
| 30-39 years | 82.5 | 85.1 | 86.3 | 87.5 | 89.3 | 6.8 |
| 40-49 years | 87.7 | 88.8 | 90.0 | 90.2 | 92.6 | 4.9 |
| 50-59 years | 89.1 | 89.2 | 91.2 | 90.4 | 92.9 | 3.8 |
| 60-69 years | 87.7 | 87.3 | 89.9 | 88.8 | 91.9 | 4.3 |
| 70-79 years | 81.9 | 81.8 | 84.6 | 84.8 | 88.0 | 6.0 |
| VIC | | | | | | |
| 20-29 years | 75.4 | 78.4 | 81.6 | 81.9 | 77.9 | 2.5 |
| 30-39 years | 81.2 | 83.8 | 84.7 | 86.3 | 87.6 | 6.4 |
| 40-49 years | 87.2 | 88.5 | 89.3 | 89.6 | 91.8 | 4.6 |
| 50-59 years | 88.2 | 88.7 | 90.3 | 90.3 | 92.5 | 4.2 |
| 60-69 years | 87.3 | 86.7 | 89.8 | 88.8 | 91.4 | 4.1 |
| 70-79 years | 82.2 | 82.3 | 85.1 | 85.6 | 87.4 | 5.2 |
| ACT | | | | | | |
| 20-29 years | 79.5 | 81.8 | 84.5 | 86.8 | 83.8 | 4.2 |
| 30-39 years | 82.1 | 88.0 | 87.0 | 89.9 | 91.3 | 9.2 |
| 40-49 years | 88.6 | 91.5 | 92.0 | 92.6 | 93.9 | 5.3 |
| 50-59 years | 89.4 | 91.6 | 91.8 | 92.1 | 93.6 | 4.2 |
| 60-69 years | 89.1 | 90.5 | 91.6 | 90.2 | 93.0 | 3.9 |
| 70-79 years | 83.7 | 85.1 | 87.5 | 85.9 | 89.2 | 5.5 |

Note: States/ Territories have been ordered from lowest to highest proportion who have received at least one vaccination.

Table A1c. Proportions of the population who have received at least one dose of a COVID-19 vaccination by 31 July 2021 in relation to level of education, and differences in proportions between people in the lowest and the highest and education groups, by age group and state/ territory.

| | Highest level of education | | | | | |
|---|---|---|---|---|---|---|
| | No Yr 12 & no other quals (lowest) | Yr 12 & no other non-school qual | No Yr 12 & other non-school qual | Yr 12 & other non-school qual | Bachelor's degree (highest) | Percentage point difference (high – low) |
| Qld | | | | | | |
| 20-29 years | 5.2 | 13.1 | 6.4 | 11.1 | 25.3 | 20.1 |
| 30-39 years | 10.7 | 17.1 | 13.3 | 19.1 | 37.4 | 26.7 |
| 40-49 years | 25.1 | 33.4 | 30.5 | 37.8 | 56.5 | 31.4 |
| 50-59 years | 43.1 | 50.8 | 48.9 | 55.1 | 68.4 | 25.2 |
| 60-69 years | 63.5 | 64.9 | 66.8 | 67.7 | 76.3 | 12.8 |
| 70-79 years | 67.5 | 66.5 | 71.7 | 71.3 | 77.5 | 10.0 |
| WA | | | | | | |
| 20-29 years | 5.0 | 11.3 | 6.5 | 11.2 | 25.4 | 20.4 |
| 30-39 years | 11.3 | 19.2 | 15.1 | 22.4 | 38.1 | 26.8 |
| 40-49 years | 27.8 | 36.8 | 34.6 | 42.0 | 58.9 | 31.1 |
| 50-59 years | 43.5 | 51.0 | 51.3 | 57.0 | 69.7 | 26.2 |
| 60-69 years | 59.9 | 61.2 | 64.8 | 64.8 | 74.4 | 14.5 |
| 70-79 years | 64.3 | 64.7 | 69.2 | 70.1 | 76.1 | 11.8 |
| SA | | | | | | |
| 20-29 years | 6.4 | 14.5 | 8.1 | 13.2 | 24.0 | 17.7 |
| 30-39 years | 13.6 | 21.9 | 18.2 | 27.1 | 41.7 | 28.1 |
| 40-49 years | 28.2 | 37.7 | 37.1 | 46.3 | 64.0 | 35.8 |
| 50-59 years | 42.7 | 48.4 | 52.1 | 58.0 | 70.7 | 28.1 |
| 60-69 years | 60.0 | 60.7 | 67.2 | 67.3 | 76.8 | 16.8 |
| 70-79 years | 63.2 | 63.2 | 70.3 | 70.9 | 78.6 | 15.4 |
| NT | | | | | | |
| 20-29 years | 16.6 | 25.8 | 17.4 | 26.3 | 39.7 | 23.1 |
| 30-39 years | 22.4 | 32.0 | 26.2 | 35.4 | 52.8 | 30.5 |
| 40-49 years | 34.5 | 45.9 | 42.7 | 51.6 | 66.5 | 32.0 |
| 50-59 years | 47.2 | 56.8 | 59.5 | 63.5 | 74.5 | 27.2 |
| 60-69 years | 63.6 | 64.5 | 69.8 | 70.1 | 79.2 | 15.6 |
| 70-79 years | 63.2 | 67.6 | 75.6 | 72.4 | 80.7 | 17.5 |

| | Highest level of education | | | | | |
|---|---|---|---|---|---|---|
| | No Yr 12 & no other quals (lowest) | Yr 12 & no other non-school qual | No Yr 12 & other non-school qual | Yr 12 & other non-school qual | Bachelor's degree (highest) | Percentage point difference (high – low) |
| Tas | | | | | | |
| 20-29 years | 8.1 | 20.7 | 10.2 | 17.8 | 36.1 | 28.0 |
| 30-39 years | 16.3 | 24.6 | 21.9 | 29.0 | 49.1 | 32.8 |
| 40-49 years | 34.9 | 43.4 | 44.3 | 50.4 | 67.5 | 32.6 |
| 50-59 years | 53.2 | 61.0 | 60.7 | 66.8 | 77.9 | 24.7 |
| 60-69 years | 66.7 | 67.9 | 72.2 | 74.9 | 82.0 | 15.3 |
| 70-79 years | 66.7 | 67.2 | 73.2 | 72.9 | 79.2 | 12.4 |
| NSW | | | | | | |
| 20-29 years | 6.6 | 14.2 | 7.0 | 12.7 | 22.0 | 15.5 |
| 30-39 years | 17.6 | 25.2 | 21.1 | 29.1 | 43.0 | 25.4 |
| 40-49 years | 38.9 | 48.0 | 47.2 | 54.6 | 72.0 | 33.1 |
| 50-59 years | 53.6 | 57.9 | 62.8 | 65.6 | 77.4 | 23.8 |
| 60-69 years | 64.8 | 65.6 | 72.9 | 72.5 | 81.3 | 16.5 |
| 70-79 years | 64.9 | 65.7 | 73.8 | 73.1 | 80.0 | 15.1 |
| VIC | | | | | | |
| 20-29 years | 6.7 | 18.2 | 9.0 | 15.7 | 26.8 | 20.1 |
| 30-39 years | 14.6 | 23.5 | 18.6 | 27.0 | 41.7 | 27.0 |
| 40-49 years | 30.2 | 40.0 | 37.4 | 45.5 | 62.4 | 32.1 |
| 50-59 years | 46.9 | 53.0 | 55.6 | 61.4 | 72.6 | 25.7 |
| 60-69 years | 62.5 | 63.2 | 71.3 | 71.2 | 78.9 | 16.4 |
| 70-79 years | 65.3 | 65.7 | 73.8 | 73.9 | 78.2 | 12.9 |
| ACT | | | | | | |
| 20-29 years | 7.4 | 18.0 | 9.8 | 15.3 | 25.0 | 17.7 |
| 30-39 years | 19.6 | 29.0 | 23.9 | 33.5 | 45.4 | 25.8 |
| 40-49 years | 40.5 | 52.3 | 49.6 | 57.3 | 72.7 | 32.2 |
| 50-59 years | 55.5 | 64.3 | 66.4 | 69.0 | 78.7 | 23.2 |
| 60-69 years | 69.2 | 73.6 | 76.8 | 76.1 | 83.8 | 14.6 |
| 70-79 years | 69.1 | 73.3 | 77.8 | 78.0 | 82.8 | 13.7 |

Note: States/ Territories have been ordered from lowest to highest proportion who have received at least one vaccination.

Table A2a. Proportions of the population who have received at least one dose of a COVID-19 vaccination by 10 January 2022 in relation to categories of equivalised household income, by age group and state/ territory.

| | Total equivalised household income | | | | | Percentage point difference (high – low) |
|---|---|---|---|---|---|---|
| | Nil-<$26K (lowest) | $26K-<$41.6K | $41.6K-<$65K | $65K-<$104K | $104K+ (highest) | |
| Qld | | | | | | |
| 20-29 years | 64.9 | 73.1 | 78.7 | 84.0 | 81.4 | 16.4 |
| 30-39 years | 73.6 | 79.4 | 83.9 | 87.6 | 86.2 | 12.6 |
| 40-49 years | 78.3 | 83.8 | 87.9 | 90.8 | 89.2 | 10.9 |
| 50-59 years | 79.1 | 84.0 | 87.9 | 90.8 | 89.6 | 10.5 |
| 60-69 years | 83.5 | 86.4 | 87.9 | 90.0 | 88.1 | 4.7 |
| 70-79 years | 81.4 | 83.5 | 83.7 | 85.6 | 83.4 | 1.9 |
| WA | | | | | | |
| 20-29 years | 65.1 | 73.4 | 79.5 | 84.4 | 82.8 | 17.7 |
| 30-39 years | 73.9 | 81.0 | 85.7 | 87.6 | 86.6 | 12.7 |
| 40-49 years | 79.0 | 85.5 | 89.9 | 91.9 | 90.8 | 11.8 |
| 50-59 years | 78.6 | 84.9 | 88.9 | 91.6 | 90.6 | 12.0 |
| 60-69 years | 82.8 | 86.8 | 88.3 | 90.2 | 88.9 | 6.1 |
| 70-79 years | 80.9 | 84.1 | 84.3 | 85.2 | 83.1 | 2.2 |
| SA | | | | | | |
| 20-29 years | 66.2 | 76.9 | 82.9 | 87.5 | 83.9 | 17.7 |
| 30-39 years | 75.5 | 82.7 | 87.1 | 90.0 | 88.3 | 12.8 |
| 40-49 years | 78.8 | 85.3 | 89.8 | 92.6 | 90.5 | 11.6 |
| 50-59 years | 80.3 | 86.0 | 90.1 | 92.5 | 91.3 | 11.1 |
| 60-69 years | 84.1 | 88.9 | 90.1 | 92.3 | 90.8 | 6.7 |
| 70-79 years | 82.0 | 85.2 | 85.9 | 87.9 | 85.5 | 3.5 |
| NT | | | | | | |
| 20-29 years | 65.9 | 74.2 | 80.7 | 84.8 | 81.9 | 16.0 |
| 30-39 years | 66.7 | 81.5 | 87.0 | 87.8 | 85.1 | 18.4 |
| 40-49 years | 69.5 | 84.2 | 90.3 | 91.1 | 88.9 | 19.4 |
| 50-59 years | 68.3 | 83.3 | 87.7 | 88.7 | 87.8 | 19.5 |
| 60-69 years | 73.7 | 80.2 | 85.9 | 86.7 | 85.8 | 12.1 |
| 70-79 years | 72.1 | 78.4 | 82.1 | 80.8 | 80.0 | 7.9 |

| | Total equivalised household income | | | | | Percentage point difference (high – low) |
|---|---|---|---|---|---|---|
| | Nil-<$26K (lowest) | $26K-<$41.6K | $41.6K-<$65K | $65K-<$104K | $104K+ (highest) | |
| Tas | | | | | | |
| 20-29 years | 72.4 | 82.2 | 86.7 | 91.0 | 86.7 | 14.3 |
| 30-39 years | 79.0 | 85.8 | 90.5 | 92.8 | 89.7 | 10.7 |
| 40-49 years | 82.2 | 88.8 | 93.3 | 94.6 | 92.9 | 10.6 |
| 50-59 years | 83.6 | 89.5 | 92.5 | 94.8 | 93.0 | 9.4 |
| 60-69 years | 85.7 | 89.2 | 91.3 | 93.1 | 90.6 | 5.0 |
| 70-79 years | 82.2 | 84.0 | 83.9 | 87.9 | 83.7 | 1.5 |
| VIC | | | | | | |
| 20-29 years | 66.2 | 79.6 | 85.0 | 89.3 | 86.0 | 19.8 |
| 30-39 years | 82.8 | 87.0 | 89.9 | 91.5 | 90.0 | 7.2 |
| 40-49 years | 85.7 | 90.1 | 92.7 | 94.0 | 92.9 | 7.2 |
| 50-59 years | 85.7 | 89.8 | 92.5 | 94.3 | 93.2 | 7.6 |
| 60-69 years | 86.6 | 89.7 | 91.3 | 93.0 | 91.8 | 5.2 |
| 70-79 years | 83.5 | 85.8 | 86.4 | 88.1 | 85.9 | 2.4 |
| NSW | | | | | | |
| 20-29 years | 66.4 | 77.0 | 81.8 | 86.9 | 84.5 | 18.1 |
| 30-39 years | 80.6 | 84.6 | 87.5 | 89.8 | 88.3 | 7.7 |
| 40-49 years | 84.3 | 88.6 | 91.5 | 93.1 | 92.0 | 7.6 |
| 50-59 years | 84.2 | 88.4 | 91.4 | 93.5 | 92.7 | 8.5 |
| 60-69 years | 85.9 | 88.8 | 90.3 | 92.1 | 91.3 | 5.4 |
| 70-79 years | 83.2 | 84.9 | 85.7 | 87.3 | 85.7 | 2.5 |
| ACT | | | | | | |
| 20-29 years | 63.5 | 80.0 | 85.8 | 91.0 | 90.5 | 27.0 |
| 30-39 years | 80.5 | 85.6 | 90.0 | 92.9 | 93.3 | 12.7 |
| 40-49 years | 83.8 | 88.5 | 92.7 | 95.2 | 95.0 | 11.2 |
| 50-59 years | 82.4 | 87.7 | 91.7 | 93.8 | 94.6 | 12.2 |
| 60-69 years | 85.0 | 90.4 | 92.3 | 93.7 | 92.9 | 8.0 |
| 70-79 years | 83.1 | 86.1 | 88.8 | 90.3 | 88.2 | 5.1 |

Note: States/ Territories have been ordered from lowest to highest proportion who have received at least one vaccination.

Table A2b. Proportions of the population who have received at least one dose of a COVID-19 vaccination by 31 October 2021 in relation to categories of equivalised household income, by age group and state/ territory.

| | Total equivalised household income | | | | | Percentage point difference (high – low) |
|---|---|---|---|---|---|---|
| | Nil-<$26K (lowest) | $26K-<$41.6K | $41.6K-<$65K | $65K-<$104K | $104K+ (highest) | |
| Qld | | | | | | |
| 20-29 years | 45.9 | 53.9 | 61.0 | 70.0 | 67.7 | 21.8 |
| 30-39 years | 56.3 | 64.9 | 72.3 | 79.3 | 77.9 | 21.6 |
| 40-49 years | 66.1 | 73.8 | 80.4 | 86.0 | 83.3 | 17.3 |
| 50-59 years | 71.7 | 77.7 | 83.1 | 87.7 | 86.3 | 14.6 |
| 60-69 years | 80.1 | 83.7 | 85.6 | 88.1 | 85.9 | 5.8 |
| 70-79 years | 79.1 | 81.8 | 82.0 | 84.2 | 81.4 | 2.2 |
| WA | | | | | | |
| 20-29 years | 45.9 | 53.7 | 60.7 | 68.1 | 67.5 | 21.7 |
| 30-39 years | 56.5 | 66.0 | 72.7 | 77.3 | 77.4 | 20.9 |
| 40-49 years | 65.3 | 73.7 | 80.6 | 85.3 | 84.3 | 19.0 |
| 50-59 years | 69.9 | 76.8 | 82.2 | 87.0 | 86.6 | 16.8 |
| 60-69 years | 78.5 | 83.5 | 85.2 | 87.2 | 86.1 | 7.6 |
| 70-79 years | 77.9 | 82.0 | 82.0 | 83.1 | 80.4 | 2.5 |
| SA | | | | | | |
| 20-29 years | 50.0 | 59.6 | 66.8 | 75.0 | 71.7 | 21.6 |
| 30-39 years | 60.6 | 69.9 | 77.0 | 82.6 | 80.5 | 19.9 |
| 40-49 years | 67.2 | 75.9 | 82.9 | 88.1 | 85.1 | 18.0 |
| 50-59 years | 72.0 | 79.1 | 85.1 | 89.6 | 88.1 | 16.2 |
| 60-69 years | 79.8 | 85.6 | 87.5 | 90.5 | 88.5 | 8.7 |
| 70-79 years | 78.4 | 83.0 | 83.8 | 86.0 | 82.8 | 4.4 |
| NT | | | | | | |
| 20-29 years | 44.3 | 59.7 | 68.1 | 73.6 | 69.8 | 25.5 |
| 30-39 years | 51.4 | 70.7 | 78.6 | 80.9 | 77.5 | 26.1 |
| 40-49 years | 56.6 | 75.1 | 83.9 | 86.3 | 83.1 | 26.5 |
| 50-59 years | 61.7 | 76.0 | 83.2 | 85.7 | 85.0 | 23.3 |
| 60-69 years | 69.0 | 76.4 | 83.1 | 84.8 | 83.6 | 14.6 |
| 70-79 years | 68.6 | 74.5 | 78.1 | 78.2 | 76.5 | 7.9 |

| | Total equivalised household income | | | | | Percentage point difference (high – low) |
|---|---|---|---|---|---|---|
| | Nil-<$26K (lowest) | $26K-<$41.6K | $41.6K-<$65K | $65K-<$104K | $104K+ (highest) | |
| Tas | | | | | | |
| 20-29 years | 55.3 | 66.0 | 72.1 | 80.7 | 76.4 | 21.1 |
| 30-39 years | 65.2 | 74.6 | 82.5 | 87.4 | 83.8 | 18.7 |
| 40-49 years | 73.4 | 81.8 | 88.3 | 91.7 | 88.2 | 14.8 |
| 50-59 years | 77.9 | 85.0 | 89.5 | 93.0 | 90.8 | 12.9 |
| 60-69 years | 82.6 | 86.9 | 89.7 | 91.8 | 88.7 | 6.1 |
| 70-79 years | 79.9 | 82.3 | 82.3 | 86.6 | 81.3 | 1.3 |
| VIC | | | | | | |
| 20-29 years | 63.2 | 77.1 | 83.0 | 87.7 | 84.3 | 21.1 |
| 30-39 years | 79.7 | 85.1 | 88.5 | 90.4 | 89.0 | 9.2 |
| 40-49 years | 83.2 | 88.6 | 91.6 | 93.4 | 92.0 | 8.8 |
| 50-59 years | 83.5 | 88.5 | 91.6 | 93.8 | 92.5 | 9.0 |
| 60-69 years | 85.2 | 88.7 | 90.5 | 92.5 | 91.1 | 6.0 |
| 70-79 years | 82.2 | 84.9 | 85.6 | 87.5 | 84.9 | 2.7 |
| NSW | | | | | | |
| 20-29 years | 63.9 | 74.8 | 80.0 | 85.5 | 83.1 | 19.3 |
| 30-39 years | 78.5 | 83.0 | 86.4 | 88.9 | 87.5 | 8.9 |
| 40-49 years | 82.8 | 87.5 | 90.7 | 92.5 | 91.4 | 8.6 |
| 50-59 years | 82.9 | 87.5 | 90.8 | 93.1 | 92.3 | 9.3 |
| 60-69 years | 85.2 | 88.2 | 89.9 | 91.8 | 90.9 | 5.8 |
| 70-79 years | 82.6 | 84.5 | 85.3 | 87.0 | 85.2 | 2.7 |
| ACT | | | | | | |
| 20-29 years | 61.7 | 77.6 | 84.4 | 89.7 | 89.4 | 27.8 |
| 30-39 years | 77.9 | 84.1 | 88.8 | 92.1 | 92.8 | 15.0 |
| 40-49 years | 82.6 | 87.4 | 92.2 | 94.9 | 94.6 | 12.1 |
| 50-59 years | 81.5 | 87.1 | 90.9 | 93.5 | 94.4 | 12.8 |
| 60-69 years | 84.2 | 89.6 | 91.9 | 93.6 | 92.8 | 8.6 |
| 70-79 years | 82.4 | 85.6 | 88.4 | 90.3 | 87.8 | 5.4 |

Note: States/ Territories have been ordered from lowest to highest proportion who have received at least one vaccination.

Table A2c. Proportions of the population who have received at least one dose of a COVID-19 vaccination by 31 July 2021 in relation to categories of equivalised household income, by age group and state/ territory.

| | Total equivalised household income | | | | | Percentage point difference (high – low) |
|---|---|---|---|---|---|---|
| | Nil-<$26K (lowest) | $26K-<$41.6K | $41.6K-<$65K | $65K-<$104K | $104K+ (highest) | |
| Qld | | | | | | |
| 20-29 years | 9.7 | 10.4 | 12.1 | 16.5 | 18.0 | 8.3 |
| 30-39 years | 13.6 | 16.9 | 21.6 | 28.2 | 31.0 | 17.4 |
| 40-49 years | 24.2 | 29.0 | 36.6 | 47.0 | 47.8 | 23.6 |
| 50-59 years | 38.6 | 43.6 | 49.6 | 59.2 | 60.8 | 22.2 |
| 60-69 years | 60.3 | 65.7 | 67.5 | 71.6 | 69.6 | 9.4 |
| 70-79 years | 65.5 | 70.3 | 71.4 | 73.9 | 69.7 | 4.1 |
| WA | | | | | | |
| 20-29 years | 8.7 | 9.7 | 12.0 | 15.6 | 17.1 | 8.4 |
| 30-39 years | 14.4 | 18.7 | 24.0 | 29.5 | 31.9 | 17.5 |
| 40-49 years | 25.5 | 32.0 | 39.7 | 49.0 | 51.2 | 25.7 |
| 50-59 years | 38.8 | 44.0 | 50.4 | 59.4 | 62.2 | 23.5 |
| 60-69 years | 56.6 | 64.1 | 64.8 | 67.1 | 67.5 | 10.9 |
| 70-79 years | 62.7 | 69.7 | 70.1 | 70.6 | 68.1 | 5.5 |
| SA | | | | | | |
| 20-29 years | 10.2 | 12.2 | 14.1 | 17.6 | 18.7 | 8.5 |
| 30-39 years | 18.2 | 23.6 | 28.9 | 34.0 | 36.4 | 18.3 |
| 40-49 years | 27.8 | 35.8 | 44.9 | 56.5 | 54.0 | 26.2 |
| 50-59 years | 37.5 | 44.0 | 52.2 | 62.7 | 63.5 | 26.0 |
| 60-69 years | 56.5 | 65.5 | 67.6 | 72.9 | 70.6 | 14.1 |
| 70-79 years | 61.9 | 70.2 | 71.4 | 74.3 | 69.9 | 8.0 |
| NT | | | | | | |
| 20-29 years | 18.4 | 21.5 | 24.1 | 28.6 | 27.0 | 8.6 |
| 30-39 years | 22.5 | 31.9 | 37.4 | 42.2 | 39.5 | 17.0 |
| 40-49 years | 28.7 | 38.6 | 48.1 | 56.2 | 54.9 | 26.1 |
| 50-59 years | 34.7 | 46.7 | 56.2 | 62.5 | 66.8 | 32.1 |
| 60-69 years | 52.4 | 60.4 | 66.4 | 71.1 | 72.0 | 19.6 |
| 70-79 years | 56.5 | 64.7 | 67.4 | 72.7 | 66.7 | 10.2 |

| | Total equivalised household income | | | | | Percentage point difference (high – low) |
|---|---|---|---|---|---|---|
| | Nil-<$26K (lowest) | $26K-<$41.6K | $41.6K-<$65K | $65K-<$104K | $104K+ (highest) | |
| Tas | | | | | | |
| 20-29 years | 12.2 | 14.6 | 17.9 | 24.9 | 26.7 | 14.4 |
| 30-39 years | 18.1 | 23.7 | 31.5 | 40.7 | 39.8 | 21.7 |
| 40-49 years | 31.2 | 39.1 | 50.5 | 60.9 | 55.7 | 24.5 |
| 50-59 years | 46.4 | 54.6 | 63.1 | 72.2 | 70.5 | 24.1 |
| 60-69 years | 64.0 | 71.4 | 75.7 | 79.8 | 74.8 | 10.8 |
| 70-79 years | 66.6 | 72.3 | 74.0 | 79.7 | 69.1 | 2.5 |
| VIC | | | | | | |
| 20-29 years | 9.9 | 12.4 | 14.0 | 17.9 | 18.4 | 8.5 |
| 30-39 years | 21.2 | 27.0 | 32.6 | 37.4 | 39.8 | 18.6 |
| 40-49 years | 37.1 | 45.9 | 55.6 | 66.1 | 65.7 | 28.6 |
| 50-59 years | 47.0 | 54.5 | 62.6 | 72.3 | 72.0 | 25.1 |
| 60-69 years | 61.8 | 69.6 | 72.5 | 78.4 | 76.3 | 14.4 |
| 70-79 years | 64.8 | 71.8 | 73.6 | 76.7 | 72.0 | 7.2 |
| NSW | | | | | | |
| 20-29 years | 10.6 | 13.4 | 16.3 | 21.6 | 23.8 | 13.2 |
| 30-39 years | 17.8 | 22.7 | 28.8 | 35.3 | 39.0 | 21.2 |
| 40-49 years | 28.9 | 35.6 | 44.0 | 54.6 | 57.4 | 28.5 |
| 50-59 years | 41.1 | 47.8 | 55.7 | 65.6 | 68.3 | 27.2 |
| 60-69 years | 60.4 | 67.0 | 70.3 | 75.4 | 74.7 | 14.2 |
| 70-79 years | 65.4 | 71.2 | 72.4 | 75.1 | 72.0 | 6.5 |
| ACT | | | | | | |
| 20-29 years | 11.1 | 14.5 | 16.4 | 20.2 | 22.0 | 10.9 |
| 30-39 years | 20.8 | 27.7 | 34.1 | 40.8 | 45.0 | 24.2 |
| 40-49 years | 35.0 | 43.6 | 55.2 | 67.0 | 71.4 | 36.4 |
| 50-59 years | 44.6 | 54.1 | 63.0 | 72.1 | 78.7 | 34.0 |
| 60-69 years | 61.1 | 72.4 | 78.5 | 81.4 | 82.8 | 21.7 |
| 70-79 years | 65.8 | 76.3 | 80.1 | 82.6 | 78.9 | 13.1 |

Note: States/ Territories have been ordered from lowest to highest proportion who have received at least one vaccination.

Table A3a. Proportions of the population who have received at least one dose of a COVID-19 vaccination by 10 January 2022 in relation to population-based quintiles of Socio-Economic Indexes for Areas (SEIFA), Index of Relative Socio-Economic Disadvantage (IRSD), by age group and state/ territory.

| | SEIFA IRSD | | | | | |
|---|---|---|---|---|---|---|
| | Lowest quintile | Second lowest quintile | Middle quintile | Second highest quintile | Highest quintile | Percentage point difference (high – low) |
| Qld | | | | | | |
| 20-29 years | 75.6 | 74.7 | 75.3 | 78.5 | 83.2 | 7.6 |
| 30-39 years | 80.4 | 81.0 | 81.4 | 84.6 | 87.7 | 7.3 |
| 40-49 years | 84.1 | 84.8 | 85.7 | 88.3 | 91.2 | 7.1 |
| 50-59 years | 85.0 | 85.5 | 86.5 | 88.1 | 91.1 | 6.1 |
| 60-69 years | 84.8 | 85.7 | 86.5 | 87.4 | 90.6 | 5.8 |
| 70-79 years | 79.5 | 81.4 | 82.4 | 83.7 | 86.3 | 6.7 |
| WA | | | | | | |
| 20-29 years | 77.2 | 75.2 | 79.6 | 78.5 | 82.5 | 5.3 |
| 30-39 years | 82.4 | 82.8 | 84.9 | 84.1 | 86.0 | 3.6 |
| 40-49 years | 85.2 | 87.0 | 88.6 | 89.3 | 90.8 | 5.6 |
| 50-59 years | 84.8 | 86.3 | 88.1 | 89.1 | 90.9 | 6.1 |
| 60-69 years | 83.8 | 85.0 | 86.7 | 87.6 | 90.0 | 6.2 |
| 70-79 years | 77.5 | 79.8 | 82.0 | 82.8 | 85.8 | 8.3 |
| SA | | | | | | |
| 20-29 years | 77.6 | 77.7 | 79.8 | 83.4 | 84.1 | 6.5 |
| 30-39 years | 82.6 | 84.4 | 84.8 | 87.2 | 88.4 | 5.8 |
| 40-49 years | 85.0 | 86.5 | 87.8 | 89.8 | 91.5 | 6.5 |
| 50-59 years | 86.2 | 87.5 | 88.1 | 90.6 | 91.4 | 5.2 |
| 60-69 years | 85.4 | 87.5 | 88.2 | 90.3 | 91.6 | 6.2 |
| 70-79 years | 78.7 | 82.3 | 83.6 | 85.2 | 87.5 | 8.8 |
| NT | | | | | | |
| 20-29 years | 69.8 | 83.8 | 81.1 | 82.5 | 81.5 | 11.7 |
| 30-39 years | 71.4 | 86.7 | 86.7 | 87.5 | 84.7 | 13.3 |
| 40-49 years | 74.8 | 90.1 | 89.2 | 90.4 | 89.3 | 14.5 |
| 50-59 years | 76.5 | 88.3 | 88.9 | 89.1 | 87.4 | 10.9 |
| 60-69 years | 77.3 | 86.6 | 86.9 | 86.5 | 86.7 | 9.4 |
| 70-79 years | 73.1 | 80.3 | 80.4 | 82.4 | 83.1 | 10.0 |

| | SEIFA IRSD | | | | | |
|---|---|---|---|---|---|---|
| | Lowest quintile | Second lowest quintile | Middle quintile | Second highest quintile | Highest quintile | Percentage point difference (high – low) |
| Tas | | | | | | |
| 20-29 years | 81.3 | 84.5 | 86.0 | 83.2 | 90.2 | 8.9 |
| 30-39 years | 85.6 | 87.2 | 88.7 | 90.3 | 91.4 | 5.8 |
| 40-49 years | 88.6 | 89.5 | 91.5 | 93.4 | 94.5 | 5.9 |
| 50-59 years | 89.0 | 89.8 | 92.4 | 93.6 | 93.6 | 4.7 |
| 60-69 years | 86.8 | 88.3 | 89.8 | 91.8 | 92.2 | 5.4 |
| 70-79 years | 79.1 | 82.0 | 85.1 | 85.5 | 85.3 | 6.2 |
| VIC | | | | | | |
| 20-29 years | 80.4 | 78.1 | 84.4 | 83.4 | 84.0 | 3.7 |
| 30-39 years | 87.3 | 88.0 | 90.0 | 89.1 | 89.1 | 1.8 |
| 40-49 years | 90.1 | 90.8 | 91.6 | 91.5 | 92.2 | 2.2 |
| 50-59 years | 89.9 | 91.0 | 91.4 | 91.8 | 92.8 | 2.9 |
| 60-69 years | 87.5 | 89.0 | 89.4 | 89.9 | 91.7 | 4.2 |
| 70-79 years | 80.5 | 82.6 | 83.8 | 84.3 | 87.0 | 6.5 |
| NSW | | | | | | |
| 20-29 years | 81.8 | 79.8 | 77.5 | 79.7 | 83.3 | 1.5 |
| 30-39 years | 85.8 | 86.4 | 86.8 | 87.3 | 87.7 | 1.9 |
| 40-49 years | 88.7 | 89.7 | 90.4 | 91.2 | 91.7 | 3.0 |
| 50-59 years | 88.9 | 89.8 | 90.5 | 91.3 | 92.3 | 3.4 |
| 60-69 years | 87.0 | 88.5 | 88.9 | 89.7 | 91.3 | 4.3 |
| 70-79 years | 80.3 | 82.7 | 83.4 | 85.0 | 86.9 | 6.6 |
| ACT | | | | | | |
| 20-29 years | 88.0 | 82.5 | 84.9 | 86.1 | 84.2 | -3.8 |
| 30-39 years | 89.5 | 90.7 | 88.9 | 90.9 | 90.8 | 1.3 |
| 40-49 years | 80.0 | 92.0 | 92.5 | 93.3 | 93.3 | 13.3 |
| 50-59 years | 89.7 | 91.4 | 90.7 | 92.9 | 92.6 | 2.9 |
| 60-69 years | 85.7 | 92.4 | 91.0 | 90.9 | 92.0 | 6.3 |
| 70-79 years | 84.6 | 86.1 | 83.9 | 84.8 | 87.1 | 2.5 |

Note: States/ Territories have been ordered from lowest to highest proportion who have received at least one vaccination.

Table A3b. Proportions of the population who have received at least one dose of a COVID-19 vaccination by 31 October 2021 in relation to population-based quintiles of Socio-Economic Indexes for Areas (SEIFA), Index of Relative Socio-Economic Disadvantage (IRSD), by age group and state/ territory.

| | | SEIFA IRSD | | | | |
|---|---|---|---|---|---|---|
| | | Lowest quintile | Second lowest quintile | Middle quintile | Second highest quintile | Highest quintile | Percentage point difference (high – low) |
| Qld | | | | | | | |
| 20-29 years | 53.3 | 55.7 | 58.2 | 65.2 | 74.0 | 20.8 |
| 30-39 years | 64.3 | 67.2 | 69.2 | 75.7 | 81.8 | 17.5 |
| 40-49 years | 73.1 | 75.1 | 77.8 | 82.4 | 87.5 | 14.4 |
| 50-59 years | 78.5 | 80.0 | 81.9 | 84.3 | 88.6 | 10.1 |
| 60-69 years | 81.5 | 82.9 | 84.1 | 85.4 | 89.3 | 7.8 |
| 70-79 years | 77.1 | 79.4 | 80.6 | 82.2 | 85.2 | 8.1 |
| WA | | | | | | |
| 20-29 years | 54.0 | 56.1 | 60.0 | 62.8 | 70.1 | 16.1 |
| 30-39 years | 65.6 | 68.8 | 71.3 | 73.1 | 77.6 | 12.0 |
| 40-49 years | 72.5 | 75.8 | 78.8 | 81.4 | 85.3 | 12.8 |
| 50-59 years | 76.8 | 79.0 | 81.8 | 84.0 | 87.2 | 10.4 |
| 60-69 years | 79.4 | 81.3 | 83.1 | 84.5 | 87.7 | 8.2 |
| 70-79 years | 74.6 | 77.0 | 79.4 | 80.3 | 84.1 | 9.5 |
| SA | | | | | | |
| 20-29 years | 58.0 | 62.6 | 65.8 | 71.0 | 76.2 | 18.2 |
| 30-39 years | 68.9 | 73.4 | 74.8 | 78.7 | 82.5 | 13.6 |
| 40-49 years | 74.9 | 78.2 | 80.7 | 84.0 | 87.6 | 12.7 |
| 50-59 years | 79.4 | 81.7 | 83.1 | 87.1 | 88.9 | 9.6 |
| 60-69 years | 81.1 | 84.1 | 85.5 | 87.7 | 90.0 | 8.9 |
| 70-79 years | 75.3 | 79.4 | 80.6 | 83.1 | 86.2 | 10.9 |
| NT | | | | | | |
| 20-29 years | 52.0 | 70.7 | 68.3 | 70.3 | 71.4 | 19.4 |
| 30-39 years | 58.8 | 78.1 | 77.2 | 79.5 | 77.8 | 19.0 |
| 40-49 years | 64.7 | 83.7 | 82.7 | 84.6 | 84.6 | 19.9 |
| 50-59 years | 70.6 | 84.2 | 84.9 | 85.7 | 84.6 | 14.1 |
| 60-69 years | 74.8 | 84.2 | 84.1 | 84.5 | 84.6 | 9.8 |
| 70-79 years | 71.3 | 78.2 | 78.4 | 80.5 | 81.0 | 9.7 |

| | | SEIFA IRSD | | | | |
|---|---|---|---|---|---|---|
| | | Lowest quintile | Second lowest quintile | Middle quintile | Second highest quintile | Highest quintile | Percentage point difference (high – low) |
| Tas | | | | | | |
| 20-29 years | 63.9 | 68.5 | 74.7 | 76.0 | 81.8 | 17.9 |
| 30-39 years | 74.3 | 77.6 | 80.8 | 85.3 | 86.4 | 12.2 |
| 40-49 years | 81.3 | 83.6 | 86.8 | 90.5 | 91.9 | 10.6 |
| 50-59 years | 84.8 | 86.3 | 89.5 | 91.8 | 92.5 | 7.7 |
| 60-69 years | 84.0 | 86.1 | 88.0 | 90.3 | 90.2 | 6.2 |
| 70-79 years | 76.9 | 79.7 | 83.3 | 83.8 | 85.3 | 8.4 |
| VIC | | | | | | |
| 20-29 years | 77.3 | 75.6 | 82.1 | 81.6 | 82.7 | 5.4 |
| 30-39 years | 84.9 | 86.1 | 88.4 | 87.7 | 88.1 | 3.1 |
| 40-49 years | 88.0 | 89.4 | 90.3 | 90.5 | 91.4 | 3.4 |
| 50-59 years | 88.2 | 89.8 | 90.4 | 90.9 | 92.2 | 4.0 |
| 60-69 years | 86.0 | 88.0 | 88.5 | 89.1 | 91.1 | 5.2 |
| 70-79 years | 78.9 | 81.6 | 82.8 | 83.3 | 86.3 | 7.4 |
| NSW | | | | | | |
| 20-29 years | 79.2 | 77.5 | 75.9 | 78.4 | 82.2 | 3.0 |
| 30-39 years | 83.9 | 84.8 | 85.6 | 86.4 | 86.8 | 2.9 |
| 40-49 years | 87.3 | 88.6 | 89.5 | 90.5 | 91.2 | 3.8 |
| 50-59 years | 88.0 | 89.1 | 89.8 | 90.7 | 92.0 | 4.0 |
| 60-69 years | 86.3 | 88.0 | 88.3 | 89.3 | 91.0 | 4.7 |
| 70-79 years | 79.6 | 82.2 | 82.8 | 84.6 | 86.6 | 6.9 |
| ACT | | | | | | |
| 20-29 years | 76.9 | 81.4 | 82.9 | 84.4 | 82.9 | 6.0 |
| 30-39 years | 84.2 | 88.4 | 88.0 | 89.8 | 90.0 | 5.7 |
| 40-49 years | 80.0 | 90.7 | 91.8 | 92.7 | 92.8 | 12.8 |
| 50-59 years | 86.7 | 91.3 | 89.7 | 92.5 | 92.2 | 5.5 |
| 60-69 years | 89.3 | 89.6 | 90.6 | 90.6 | 91.7 | 2.4 |
| 70-79 years | 83.3 | 88.6 | 83.8 | 84.5 | 86.7 | 3.4 |

Note: States/ Territories have been ordered from lowest to highest proportion who have received at least one vaccination.

Table A3c. Proportions of the population who have received at least one dose of a COVID-19 vaccination by 31 July 2021 in relation to population-based quintiles of Socio-Economic Indexes for Areas (SEIFA), Index of Relative Socio-Economic Disadvantage (IRSD), by age group and state/ territory.

| | SEIFA IRSD | | | | | |
|---|---|---|---|---|---|---|
| | Lowest quintile | Second lowest quintile | Middle quintile | Second highest quintile | Highest quintile | Percentage point difference (high – low) |
| Qld | | | | | | |
| 20-29 years | 9.9 | 11.8 | 12.1 | 15.6 | 20.4 | 10.5 |
| 30-39 years | 17.0 | 19.9 | 20.5 | 26.1 | 32.9 | 15.9 |
| 40-49 years | 29.8 | 33.8 | 35.5 | 42.0 | 51.6 | 21.8 |
| 50-59 years | 44.9 | 48.9 | 50.3 | 54.8 | 64.4 | 19.5 |
| 60-69 years | 61.2 | 65.0 | 66.5 | 68.4 | 75.7 | 14.5 |
| 70-79 years | 63.9 | 67.8 | 69.0 | 71.1 | 76.4 | 12.5 |
| WA | | | | | | |
| 20-29 years | 9.8 | 10.7 | 12.0 | 14.3 | 18.3 | 8.5 |
| 30-39 years | 18.8 | 21.0 | 23.0 | 26.7 | 32.7 | 13.9 |
| 40-49 years | 30.9 | 34.7 | 38.3 | 44.0 | 53.1 | 22.2 |
| 50-59 years | 44.6 | 47.1 | 51.6 | 55.7 | 64.1 | 19.5 |
| 60-69 years | 57.8 | 60.0 | 63.0 | 64.5 | 70.6 | 12.8 |
| 70-79 years | 60.7 | 63.2 | 66.3 | 66.7 | 72.8 | 12.1 |
| SA | | | | | | |
| 20-29 years | 12.0 | 13.5 | 15.2 | 16.2 | 20.9 | 8.8 |
| 30-39 years | 22.3 | 26.6 | 28.6 | 32.0 | 39.6 | 17.3 |
| 40-49 years | 34.4 | 39.6 | 44.1 | 51.5 | 60.4 | 26.0 |
| 50-59 years | 45.1 | 49.0 | 52.3 | 59.7 | 66.3 | 21.2 |
| 60-69 years | 58.2 | 63.1 | 65.4 | 69.6 | 74.1 | 15.9 |
| 70-79 years | 59.7 | 64.9 | 66.8 | 70.0 | 75.4 | 15.7 |
| NT | | | | | | |
| 20-29 years | 20.4 | 26.9 | 28.9 | 26.6 | 26.6 | 6.2 |
| 30-39 years | 27.5 | 37.5 | 42.6 | 38.9 | 36.4 | 8.9 |
| 40-49 years | 37.4 | 48.5 | 54.0 | 49.9 | 51.6 | 14.3 |
| 50-59 years | 47.4 | 59.5 | 62.9 | 63.0 | 61.9 | 14.5 |
| 60-69 years | 61.2 | 68.4 | 70.9 | 71.3 | 72.0 | 10.7 |
| 70-79 years | 62.8 | 68.6 | 67.3 | 70.0 | 72.5 | 9.8 |

| | SEIFA IRSD | | | | | |
|---|---|---|---|---|---|---|
| | Lowest quintile | Second lowest quintile | Middle quintile | Second highest quintile | Highest quintile | Percentage point difference (high – low) |
| Tas | | | | | | |
| 20-29 years | 14.1 | 16.4 | 23.7 | 25.1 | 24.1 | 10.0 |
| 30-39 years | 23.7 | 27.5 | 35.7 | 40.7 | 36.8 | 13.1 |
| 40-49 years | 39.6 | 44.8 | 53.7 | 59.4 | 58.1 | 18.5 |
| 50-59 years | 55.6 | 59.9 | 67.1 | 71.0 | 69.3 | 13.7 |
| 60-69 years | 66.5 | 69.1 | 74.4 | 78.7 | 79.5 | 13.0 |
| 70-79 years | 64.4 | 67.4 | 74.4 | 75.8 | 76.5 | 12.1 |
| VIC | | | | | | |
| 20-29 years | 11.9 | 12.8 | 13.8 | 16.1 | 19.2 | 7.2 |
| 30-39 years | 25.2 | 28.7 | 31.8 | 34.4 | 40.0 | 14.8 |
| 40-49 years | 43.4 | 49.5 | 52.9 | 56.3 | 66.3 | 22.9 |
| 50-59 years | 53.5 | 59.8 | 61.9 | 63.8 | 72.4 | 18.9 |
| 60-69 years | 61.6 | 68.7 | 70.2 | 70.0 | 77.5 | 15.9 |
| 70-79 years | 60.5 | 67.2 | 69.1 | 68.1 | 75.5 | 15.0 |
| NSW | | | | | | |
| 20-29 years | 13.5 | 14.2 | 17.4 | 20.1 | 25.1 | 11.6 |
| 30-39 years | 22.3 | 25.1 | 30.3 | 33.2 | 38.7 | 16.4 |
| 40-49 years | 34.6 | 39.3 | 44.0 | 49.2 | 58.4 | 23.8 |
| 50-59 years | 47.8 | 54.1 | 56.4 | 60.4 | 69.5 | 21.7 |
| 60-69 years | 60.7 | 67.5 | 67.4 | 70.2 | 77.1 | 16.3 |
| 70-79 years | 61.7 | 68.5 | 67.7 | 70.5 | 76.4 | 14.8 |
| ACT | | | | | | |
| 20-29 years | 20.0 | 19.6 | 15.7 | 17.3 | 20.0 | 0.0 |
| 30-39 years | 26.3 | 31.4 | 34.8 | 35.8 | 39.6 | 13.3 |
| 40-49 years | 42.1 | 52.0 | 58.8 | 58.9 | 63.8 | 21.7 |
| 50-59 years | 60.0 | 66.7 | 65.7 | 68.2 | 71.8 | 11.8 |
| 60-69 years | 69.0 | 74.2 | 74.2 | 76.3 | 78.2 | 9.2 |
| 70-79 years | 69.2 | 74.3 | 71.0 | 73.7 | 76.9 | 7.7 |

Note: States/ Territories have been ordered from lowest to highest proportion who have received at least one vaccination.