



ROUND 4

UJ-HSRC COVID-19 DEMOCRACY SURVEY

Vaccine acceptance and hesitancy: Findings from the UJ/HSRC Covid-19 Democracy Survey

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Summary of key findings

- Round 4 of the UJ/HSRC Covid-19 Democracy Survey, conducted between 25 June and 12 July 2021, recorded a rate of acceptance of 72%. That is, 72% of adults in South Africa had either been vaccinated, or would definitely take the vaccine, or would probably take it. This is five percent higher than in Round 3, conducted between 29 December 2020 and 6 January 2021.
- Correspondingly, we found that hesitancy had declined by five percentage point from 33% in round 3 to 28% in round 4.
- Acceptance was highest among those aged 55 and older, where it had increased from 74% to 85% and lowest among those aged 18-25, where it had declined from 63% to 55%. The acceptance rate was 90% for pensioners and 58% for students.
- Among Black African adults, acceptance had increased from 69% to 75%, but it had declined from 56% to 52% among White adults. However, White adults were more likely than Black African adults to have been vaccinated (16% compared to 10%).
- Men were slightly more accepting than woman (74% compared to 70%), but slightly less likely to have been vaccinated (9% compared to 12%).
- Out of six 'settlement types', people living in suburban houses had the lowest acceptance rate (69%) but the highest rate of vaccination (18%).
- There was a higher vaccine acceptance among people living in rural areas compared to urban areas.
- The report demonstrates that class factors do not strongly influence vaccine acceptance but do influence access to vaccination. Using medical aid as one proxy for class, we show that there were similar acceptance rates for those with and without coverage, but those with coverage were twice as likely to have been vaccinated. Car ownership revealed a similar pattern.
- There was minimal variation in rates of acceptance and vaccination across a spectrum between 'extremely religious' and 'extremely non-religious'.
- Vaccine acceptance is higher among people who say they know 'a lot' about Covid-19 vaccines (79%), than among those who say they know 'a fair amount' (74%), 'a little' (72%) and 'nothing at all' (62%). The implication is that increased knowledge will lead to increased acceptance.
- With information sources, the lowest acceptance rate was associated with social media and the highest rate with flyers etc., with television and radio in the middle. There is a case for intensifying campaigning across all platforms, but television is the most important because it has the greatest influence (followed by radio).

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Introduction

This report provides findings on vaccine acceptance taken from Round 4 of the UJ/HSRC Covid-19 Democracy Survey. It draws on data from a questionnaire completed between 25 June and 20 July 2021.

Where possible, it depicts changes that occurred between Round 3 of the Survey, conducted between 29 December 2020 and 6 January 2021, and Round 4. Round 3 was undertaken close to the peak of the second wave of Covid-19 infection in South Africa, and Round 4 concluded towards the peak of the third wave. While Round 3 preceded the start of the vaccine roll out, by the beginning of Round 4 nearly seven percent of adults had received at least one shot of vaccine.¹

The analysis presented here is based on the analysis of the following question: 'If a Covid-19 vaccine became available to you, would you take it?' Participants could then respond with one of the following answers, 'I've already had the vaccine', 'yes, I would definitely get the vaccine', 'I would probably get the vaccine', 'I would probably not get the vaccine', 'No, I definitely would not get the vaccine' and 'Don't know'.

The report provides an overall analysis of the levels of vaccine acceptance and hesitancy based on the answer to the question above. It then goes on to analyse the levels of acceptance further by a selected analysis of demographic, class, attitudinal and knowledge variables collected in the survey.

The government's Electronic Vaccination Data System (EVDS) delivers hard, real-time data on everybody registered for vaccination, but it can only analyse this from the perspective of a limited range of indicators (notably whether people have been vaccinated, their location and their gender). While a survey has limitations, it has the benefit of canvassing information across a broader range of variables. Drawing both sources together provides powerful insights into the challenges we face as a society.

In laying out the intentions of the country's adult population, we seek to stimulate debate and provide evidence for informed decision-making. As with any survey, further questions arise from the analysis. A second report accompanies this one: *Self-reported explanations for vaccine acceptance and hesitancy*. These two reports provide the basis for our preliminary analysis. Further analysis of the data will continue.

The UJ/HSRC Covid-19 Democracy Survey is a collaboration between the University of Johannesburg's (UJ) Centre for Social Change and the Human Sciences Research Council's (HSRC) Developmental, Capable and Ethical State research division. It is a cross-sectional online survey that has, to date, been conducted in four rounds. Round 1 was between 13 April and 11 May 2020, round 2 was between 3 July and 8 September 2020, the dates for round 3 and round 4 are provided above. As a totality, the survey offers a valuable sketch of how South Africans have survived the pandemic so far.

Survey methodology

The online survey was conducted using the #datafree Moya Messenger App. The Moya Messenger app, which is operated by Datafree, has 5 million monthly users, 800,000 of whom use the app every day. The survey was available in six languages: English, Afrikaans, isiZulu, isiXhosa, Setswana and Sesotho. English was the most common language used. The survey was fully completed by 7,631 participants. Most people undertaking the survey did so using a smartphone, access to

¹ <https://sacoronavirus.co.za/2021/06/25/update-on-covid-19-25th-june-2021/>

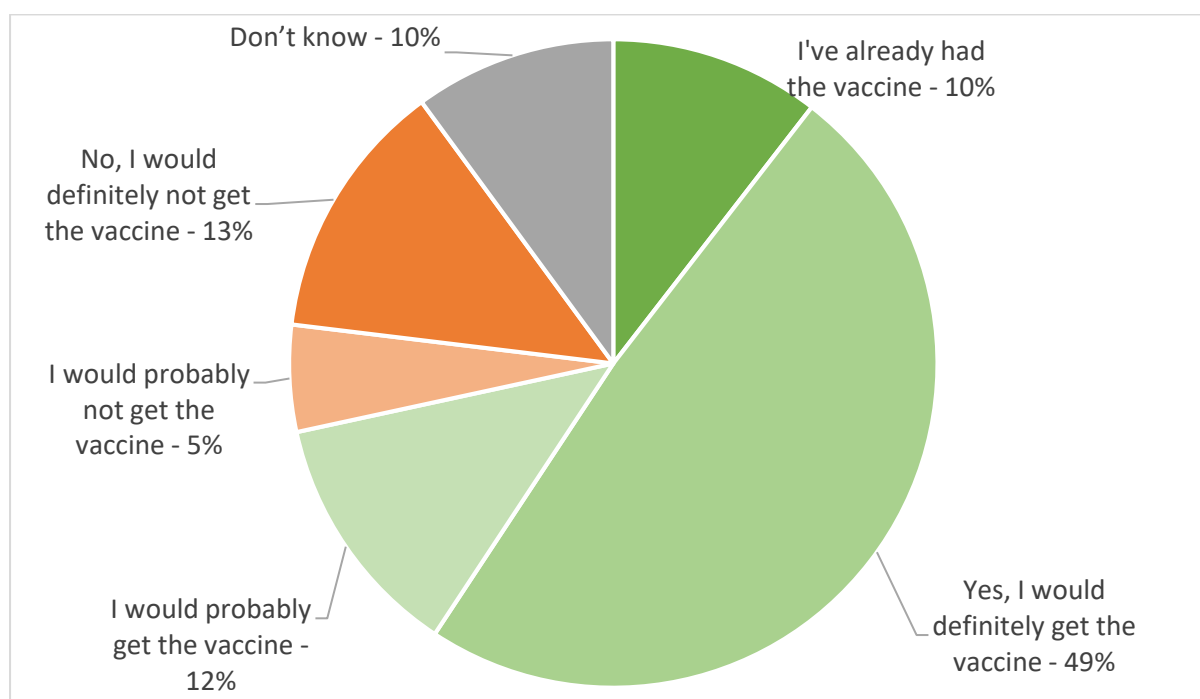
which has increased rapidly in recent years. However, there is a skew in terms of who has access to smartphones, particularly between older and younger people.

In this round, we addressed the coverage gap amongst older people by fielding a telephone survey that was undertaken by Ask Afrika. The telephone survey was conducted between 14 July 2021 and 20 July 2021, and provided an additional 258 responses from those aged 60 and above. Ask Afrika was provided with key sampling criteria regarding this supplemental sample's demographic, social, and geographic characteristics. These cases were integrated with the Moya sample to produce an overall sample size of 7,889 respondents for this round. All of the data was weighted to match Statistics South Africa data on race, education and age, and can be regarded as broadly representative of the adult population at large.

Overview of vaccine acceptance and hesitancy

In Round 3, participants were offered five possible responses to the main question on vaccine acceptance. These were: 'Yes, I would definitely get the vaccine', 'I would probably get the vaccine', 'I would probably not get the vaccine', 'No, I would definitely not get the vaccine', and 'Don't know'. For Round 4 we added a sixth possibility: 'I've already taken the vaccine.' Figure 1 shows the spread of responses in Round 4 (25 June to 20 July 2021).

Figure 1: Willingness to take a Covid-19 vaccine, Round 4 data



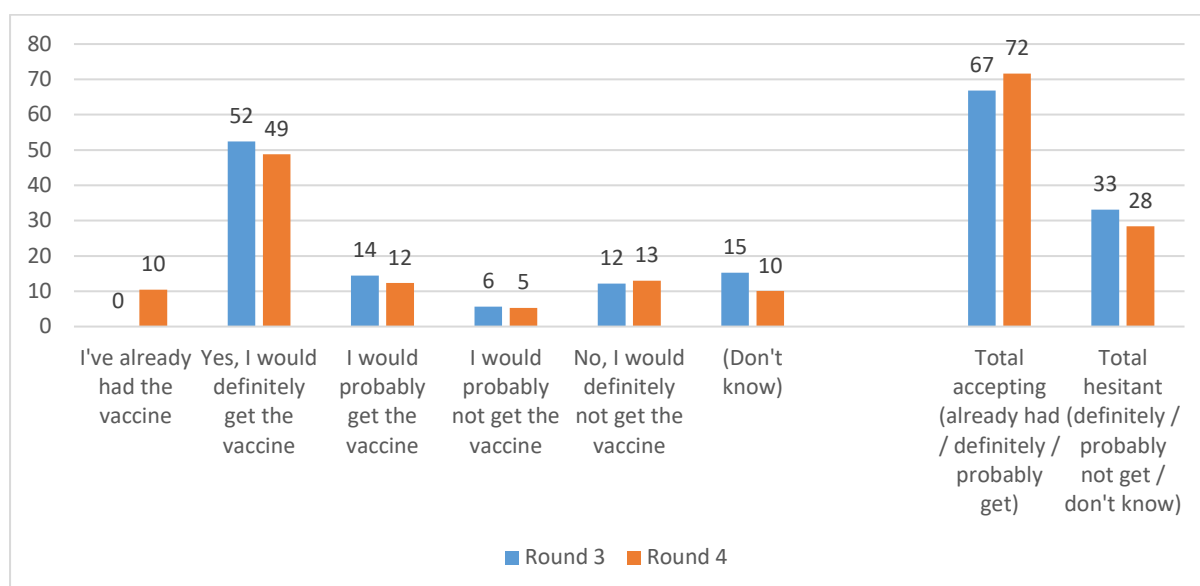
To facilitate our own interpretation and also comparison with other surveys, we categorise the vaccine accepting as those who indicated that they had already taken the vaccine, definitely or probably would take a vaccine. Those who are hesitant are those who indicated that they don't know or definitely or probably would not take a vaccine.

In Round 4, the overall acceptance rate was 72%. This is five percent more than the Round 3 acceptance rate, which was 67%. While hesitancy had, correspondingly, declined from 33% to 28%.

Figure 2 contrasts our Round 4 findings with Round 3 (29 December 2020 to 6 January 2021). Some of the decrease in the percentage of those indicating that they would definitely or probably take the

vaccine can be explained by the 10% who have exercised this intention and have been vaccinated. The proportion of the 'don't knows' has declined from 15% to 10%.

Figure 2. Willingness to take a Covid-19 vaccine, round 3 and round 4 (%)



Findings from the UJ/HSRC Covid-19 Democracy Survey can be compared with those from the NIDS-CRAM Survey.² While the latter used a different methodology and was in the field on different dates, the questions and possible responses were similar. Wave 4 of the NIDS-CRAM survey was fielded in February/March 2021 and Wave 5 in April/May 2021. It asked people to respond to the statement 'If a vaccine for COVID-19 were available, I would get it', giving these as the possible answers: 'strongly agree', 'somewhat agree', 'somewhat disagree', 'strongly disagree', 'don't know' and, in the Wave 5 questionnaire, 'already vaccinated.' Combining the two 'agree' responses and the 'already vaccinated' provides an acceptance rate, which amounted to 71% for Wave 4 and 76% for Wave 5. That is, the UJ/HSRC and NIDS-CRAM surveys both show a slight upwards trend, and they both demonstrate that more than 7 in 10 adults in South Africa have either been vaccinated or would like to be vaccinated.

A recent survey by Afrobarometer, which drew extensive media attention, suggested that only a minority of 'citizens', 43%, would try to get vaccinated.³ We are grateful to statisticians at Afrobarometer who assisted us in making sense of the vast gap between their 43% and much higher acceptance rates found in other surveys. The main issue is almost certainly about the formulation and placement of the relevant questions, which, in the case of Afrobarometer, were related to developing continent-wide comparisons.⁴

² Burger, R. et al. .2021. A shot in the arm for South Africa – increased openness to accepting a COVID-19 vaccine. Available at <https://cramsurvey.org/wp-content/uploads/2021/07/2.-Burger-R.-Maughan-Brown-M.-Kohler-T.-English-R.-Tameris-M.-2021-Increased-openness-to-accepting-a-COVID-19-vaccine-is-a-shot-in-the-arm-for-South-Africa-Evidence-from-the-NIDS-CRAM-Wave-5-Survey.pdf>

³ Afrobarometer. News release: South Africans unsure of safety of Covid-19 vaccines; many unlikely to get vaccinated. 28 July 2021. <https://afrobarometer.org/press/south-africans-unsure-safety-covid-19-vaccines-many-unlikely-get-vaccinated>

⁴ Afrobarometer asked respondents: 'If a vaccine for COVID-19 becomes available and the government says it is safe, how likely are you to try to get vaccinated?'. This came immediately after another that asked: 'How much do you trust the government to ensure that any vaccine for COVID-19 that is developed or offered to South African citizens is safe before it is used in this country?' The effect may have been to raise additional doubts about the vaccine.

The acceptance rate of 72% shown in the UJ/HSRC survey can be regarded as positive news. It confirms the upward trend found in other reliable surveys. The direction is similar to that found in most other countries once vaccination roll-outs are underway. The government’s target of fully vaccinating 80% of the adult population is realistic. However, as of 14 August, it had only reached a figure of about 19% and there has recently been a slight decline in the rate of vaccination. Many challenges lie ahead and the rest of this report suggests what some of these may be and some tentative solutions.

Factors shaping vaccine acceptance and hesitancy

The following sections of the report provide a selective analysis of some of the key demographic, class, attitudinal and other factors related to Covid-19 that appear to influence vaccine acceptance.

Demographic factors

Age

We have presented acceptance by age in two ways. The first accords with the age categories used by the EVDS. The second with the categories we used in our Round 3 survey.

Table 1: Vaccine acceptance / hesitancy in Round 4, by EVDS age group (%)

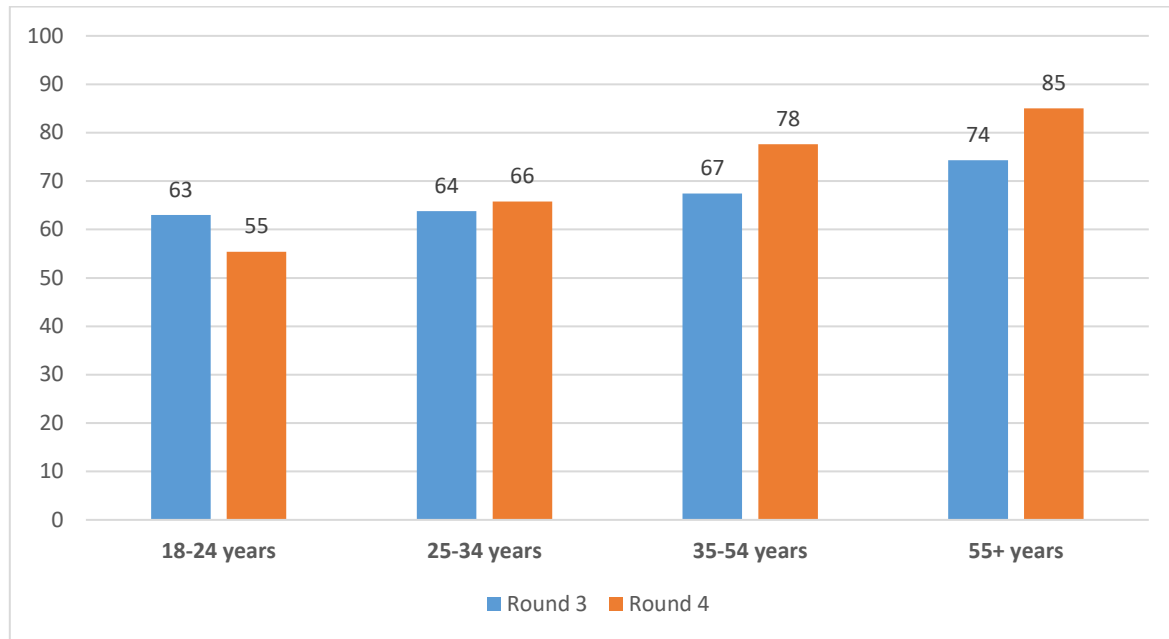
	I've already had the vaccine	Yes, I would definitely get the vaccine	I would probably get the vaccine	I would probably not get the vaccine	No, I would definitely not get the vaccine	(Don't know)	Total	Total accepting	Total hesitant
18-34	3	43	15	8	18	13	100	62	38
30-49	4	60	12	5	10	9	100	76	24
50-59	8	65	10	1	9	6	100	83	17
60+	53	29	4	2	7	5	100	86	14

Table 1 shows that, in the period covered by Round 4, over half of the 60+ age group had already been vaccinated. This cohort had been able to obtain vaccinations from 17 May 2021. The 50-59 group had to wait until 1 July 2021, after the survey had started, and younger people were only included once the survey had closed. Vaccination of younger people in the survey was related to the Johnson & Johnson trial, which allowed vaccination of health workers and then, from 23 June 2021, basic education staff.

It is noteworthy that the youngest age group, the 18-34 year-olds, were much more hesitant than older people. Their acceptance rate was 24 percentage points lower than the 60+ cohort and even 14 percentage points lower than the 35-44 group, which, like them, were unable to receive a vaccine at the time of the survey (except on occupational grounds). On the positive side, even among the youngest group, the majority wanted the vaccine or had already received it and 13% described themselves as ‘don’t know’.

In the graph below, Figure 3, we show changes since our Round 3 survey. This demonstrates that acceptance has increased in every age group apart from the 18-24 years group, which declined by eight percentage points from 63% to 55%. This is a matter of considerable concern, especially as the roll-out will shortly open up to this age group.

Figure 3: Change in vaccine acceptance between Rounds 3 and 4, by age group (%)



Race

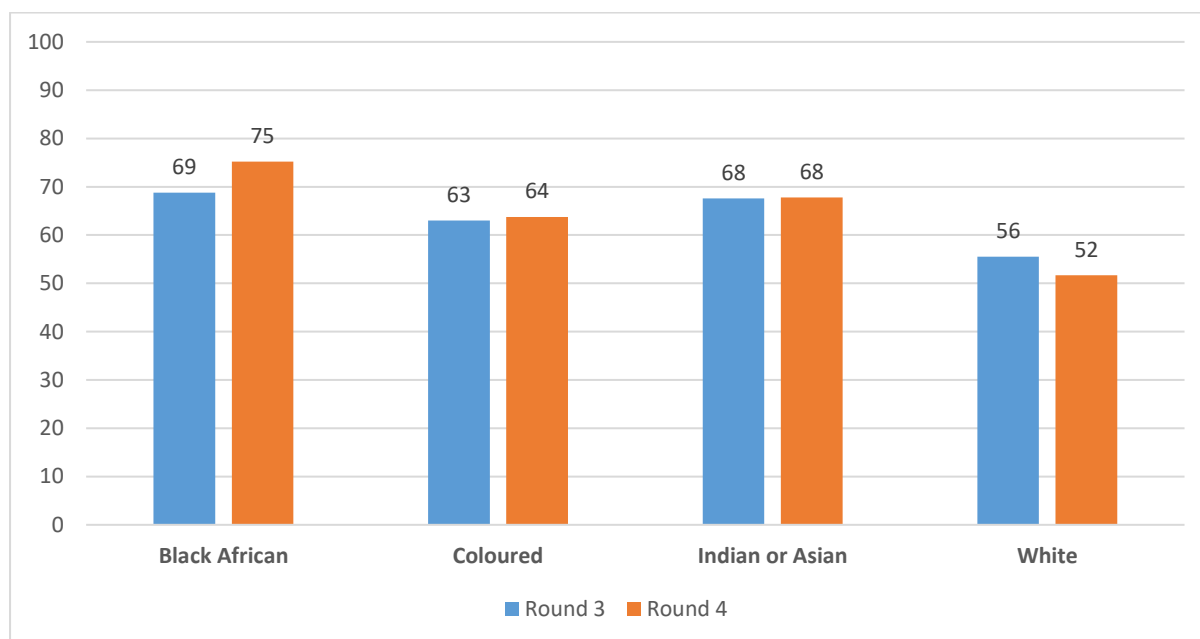
To analyse race/population group we use the categories used by StatSA. Table 2 shows that acceptance is greatest among Black Africans (75%), followed by Indians and Asians (64%) and then by Coloured adults (64%). White adults are considerably more hesitant than other population groups. Only 52% of White adults indicate that they are willing to take a vaccine, 23 percentage points lower than for Black African adults. This is despite a higher proportion of White adults already having been vaccinated than compared to other population groups.

Table 2: Vaccine acceptance / hesitancy in Round 4, by population group (%)

	I've already had the vaccine	Yes, I would definitely get the vaccine	I would probably get the vaccine	I would probably not get the vaccine	No, I would definitely not get the vaccine	(Don't know)	Total	Total accepting	Total hesitant
Black African	10	53	12	5	11	9	100	75	25
Coloured	8	40	16	5	15	16	100	64	36
Indian or Asian	14	40	14	4	13	15	100	68	32
White	16	25	10	6	27	15	100	52	48

Figure 4 contrasts data from Round 4 with that from Round 3. It shows that White adults have bucked the main trend, becoming more hesitant, and their acceptance rate is now only a little more than half. Black Africans have become more accepting of vaccination. Black African adults showed the largest increase in their willingness to take a Covid-19 vaccine, increasing from 69% to 75% between round 3 and round 4. The acceptance rate was stable for Coloured adults and Indian or Asian adults, as depicted in figure 4.

Figure 4: Change in vaccine acceptance between Rounds 3 and 4, by population group (%)



Gender

For both men and women⁵, vaccine acceptance increased by 5 percentage points between Rounds 3 and 4. However, there is a perplexing gendered contrast between willingness to vaccinate and actual vaccination. Table 3 demonstrates that men are more accepting of vaccination than women (74% versus 70%), but they are less likely to have been vaccinated (9% versus 12%). This corresponds to recently released statistics from the National Department of Health (NDoH) that showed that only 40.3% are men among those vaccinated.⁶ This figure might be concerning, but it needs to be probed. For instance, men comprise slightly less 40% of the 60+ cohort (who represent about two in five of those vaccinated).⁷

Table 3: Vaccine acceptance / hesitancy in Round 4, by gender (%)

	I've already had the vaccine	Yes, I would definitely get the vaccine	I would probably get the vaccine	I would probably not get the vaccine	No, I would definitely not get the vaccine	(Don't know)	Total	Total accepting	Total hesitant
Male	9	52	12	5	13	9	100	74	27
Female	12	46	12	6	13	11	100	70	30
Other	16	26	2	7	22	27	100	44	56

⁵ Our survey also included an 'other' category for gender however, the number of survey participants who did not identify as either male or female was too small for us to be able to reliably report on.

⁶ NDoH, Media Briefing: Covid-19 Vaccination. 13 August 2021.

<https://sacoronavirus.co.za/2021/08/13/media-briefing-covid-19-vaccination-13th-august-2021/>

⁷ StatsSA, Mid-year population estimates, July 2021.

<http://www.statssa.gov.za/publications/P0302/P03022021.pdf>

Class factors

Education

Our Round 3 findings on acceptance by education caused a minor stir among some academics and journalists because they appeared to show that well-educated people were more hesitant than those with less than a matric qualification. This time we expanded the categories we used to determine post-matric education. The Round 4 analysis is presented in Table 4. A summary of changes between Round 3 and Round 4 appears in Figure 5 using collapsed categories of educational attainment.

Table 4: Vaccine acceptance / hesitancy in Round 4, by educational attainment (%)

	I've already had the vaccine	Yes, I would definitely get the vaccine	I would probably get the vaccine	I would probably not get the vaccine	No, I would definitely not get the vaccine	(Don't know)	Total	Total accepting	Total hesitant
No formal schooling	29	43	8	4	10	7	100	80	21
Primary education	29	51	7	2	7	4	100	87	13
Some secondary schooling	8	53	12	6	12	10	100	73	27
Completed matric	5	46	14	6	16	13	100	66	34
Higher education: diploma (in progress or complete)	13	44	12	8	14	9	100	70	30
Higher education: undergraduate (in progress or complete)	15	40	16	5	16	8	100	71	29
Higher education: postgraduate (in progress or complete)	22	47	9	5	14	4	100	78	22
Vocational training	7	41	16	7	18	11	100	64	36

Figure 5: Change in vaccine acceptance between Rounds 3 and 4, by education (%)

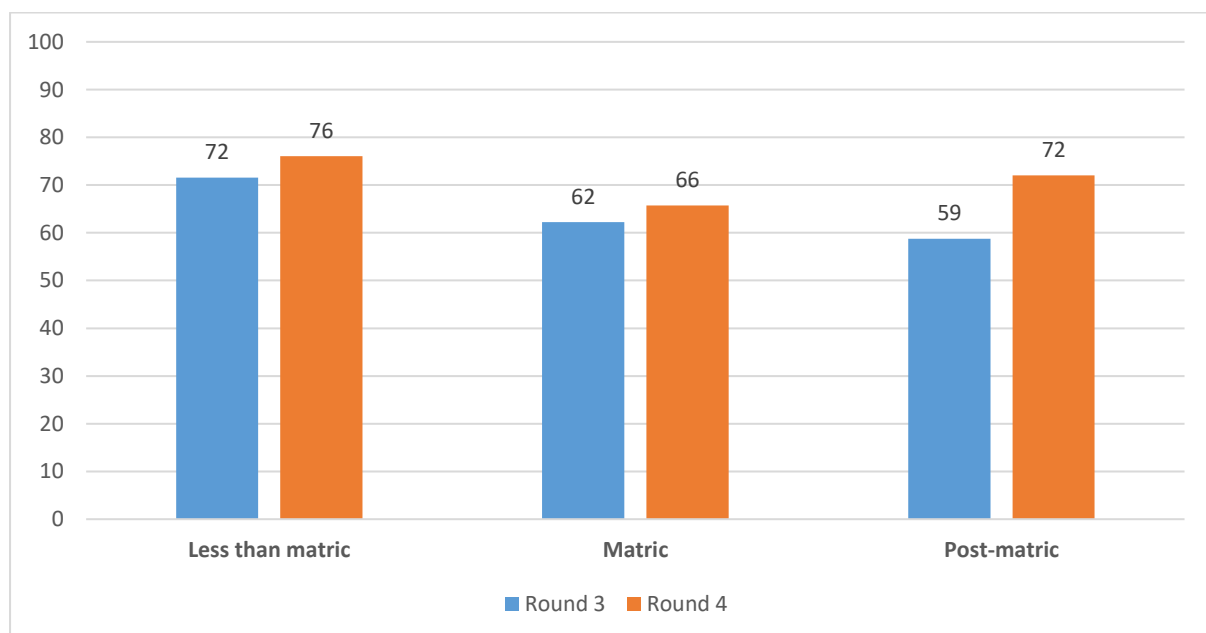


Table 4 shows a complex pattern, where acceptance is highest amongst either end of the educational attainment spectrum. Support for vaccination was highest amongst those with no formal schooling (80%) or primary education (87%) and amongst those with a higher level of educational attainment, notably those who have participated in post-graduate education (78%). Acceptance was lowest among people who have completed matric (66%). This curvilinear phenomenon requires further analysis.

Figure 5 may produce a sigh of relief among our concerned academics and journalists. It shows that, while there has been an increase in acceptance across all educational levels, this is especially marked among those with post-matric education, where it increased by 13 percentage points.

Income

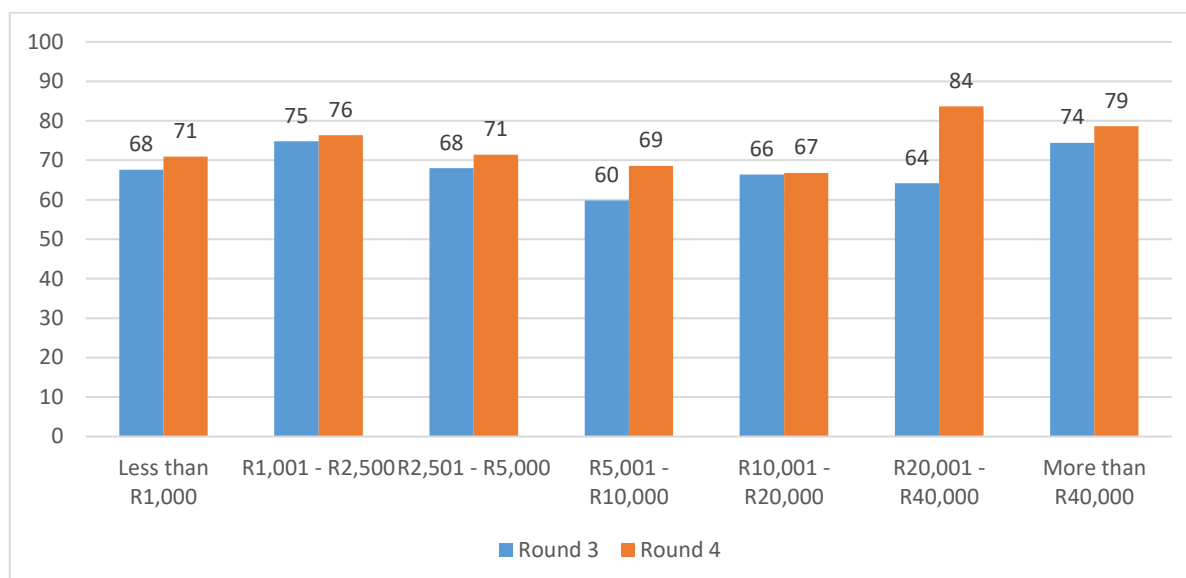
Table 5 provides an analysis of vaccine acceptance and hesitancy by income. It demonstrates that when it comes to income, there is, yet again, something of a curvilinear pattern, with people at both ends (below R5,000 per month and above R20,001 per month) more vaccine accepting than those in the middle (between R5,001 and R20,000 per month) (see Table 5).

Table 5: Vaccine acceptance / hesitancy in Round 4, by personal income (%)

	I've already had the vaccine	Yes, I would definitely get the vaccine	I would probably get the vaccine	I would probably not get the vaccine	No, I would definitely not get the vaccine	(Don't know)	Total	Total accepting	Total hesitant
Less than R1,000 per month	4	54	13	5	14	11	100	71	29
Between R1,001 and R2,500 per month	18	48	10	4	11	9	100	76	24
Between R2,501 and R5,000 per month	9	50	13	6	13	10	100	71	29
Between R5,001 and R10,000 per month	10	46	13	7	13	12	100	69	32
Between R10,001 and R20,000 per month	24	34	8	10	20	4	100	67	34
Between R20,001 and R40,000 per month	18	35	31	5	7	4	100	84	16
More than R40,000 per month	16	60	4		16	4	100	80	20
(Refuse to say)	9	37	14	9	18	14	100	60	40
(Don't know)	7	43	14%	7	18	12	100	64	36

Figure 6 demonstrates that, between Rounds 3 and 4, there was some increase in vaccine acceptance among all income groups. However, it was most marked for those earning between R20,001 and R40,000 per month, where it grew by 20 percentage points, from 64% to 84%. It is worth remembering that among White adults, whose average income is considerably higher than that of other population groups, acceptance declined between the two rounds, so it is worth considering the possibility that there was a substantial shift in opinion among higher-income Black Africans.

Figure 6: Change in vaccine acceptance between Rounds 3 and 4, by income (%)



Employment status

Table 6: Vaccine acceptance / hesitancy in Round 4, by employment status (%)

	I've already had the vaccine	Yes, I would definitely get the vaccine	I would probably get the vaccine	I would probably not get the vaccine	No, I would definitely not get the vaccine	(Don't know)	Total	Total accepting	Total hesitant
Employed full time	9	56	12	5	10	8	100	77	23
Employed part time	7	56	13	4	12	8	100	76	24
Self-employed	9	51	9	6	17	9	100	68	3
Employed in casual work or piece job	8	49	13	4	14	12	100	69	31
Unemployed, looking for work	3	52	14	6	14	12	100	68	32
Unemployed, not looking for work	13	48	15	6	11	8	100	76	25
Permanently sick or disabled	10	55	8	2	10	15	100	73	27
Student or learner	1	37	20	10	21	11	100	58	42
Pensioner	57	29	4	1	4	6	100	90	10
Looking after the household, looking after children or other persons	9	47	12	3	21	9	100	67	33
Other	5	36	18	8	16	17	100	59	41

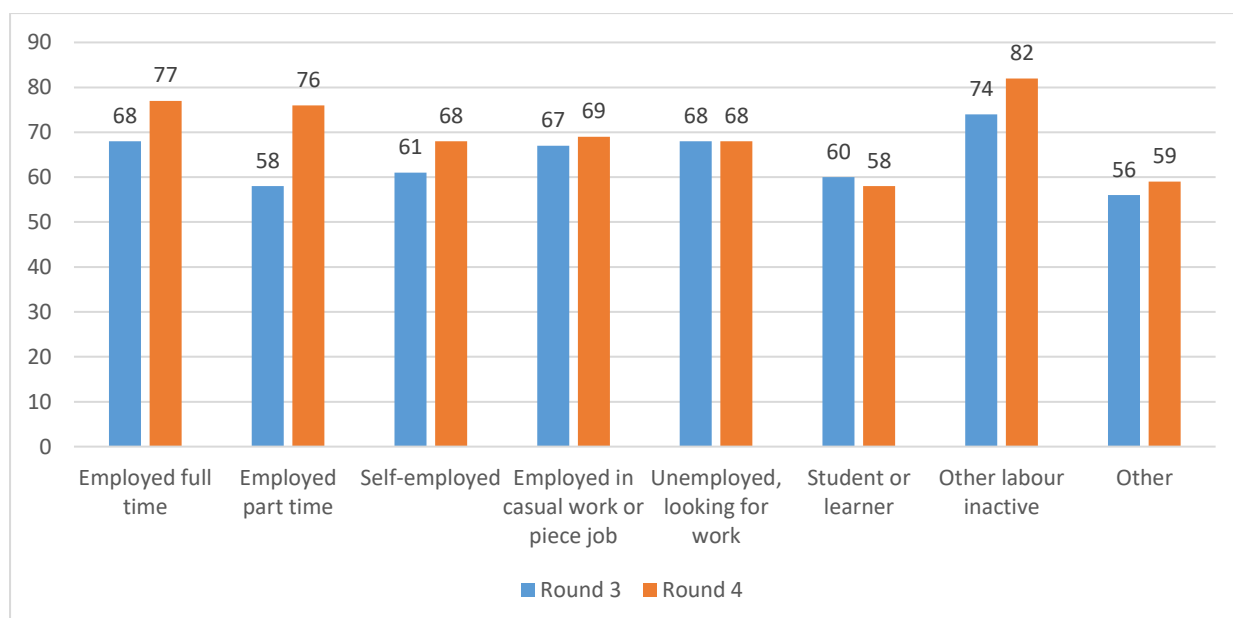
Table 6 shows vaccine acceptance by employment status. Findings for two new categories stand out: students and pensioners. Students are by far the most hesitant (with an acceptance rate of only 58%), while pensioners are by far the least hesitant, with 90% accepting. With vaccine registration open to the 18-34 age group on 1 September, the higher education sector has a considerable responsibility to win an argument for vaccination among students.

Beyond these clear-cut observations, the view is rather cloudy. Those who are employed full or part-time and those who are unemployed (not looking for work) show high levels of acceptance. But,

people who are unemployed and not looking for work are more likely to have been vaccinated than either of these two groups. This may be because those in employment have found it challenging to take time off to go and vaccinate. However, a further puzzle exists, those that are unemployed and looking for work have the lowest vaccination rate. Perhaps this is because this group is likely to be engaged in the process of looking for work and other survivalist activities, especially since the termination of the social relief of distress grant, which had not yet been reinstated at the time of the survey. However, this is speculative and further analysis and, perhaps, additional research are required to understand this patterning.

Figure 7 demonstrates the changes in the acceptance rate between round 3 and 4. The largest increase in the acceptance rate was among the part-time employed, where the acceptance rate increased by 18 percentage points from 58% to 76%. This is followed by the full-time employed, which increased by nine percentage points from 68% to 77%. The only group that showed a decline were students, from 60% to 58%, which mirrors the fall in acceptance among young people generally. While this decrease is small it is of concern because of the overall patterning of a lower acceptance rate amongst young people.

Figure 7: Change in vaccine acceptance between Rounds 3 and 4, by employment status (%)



Settlement type

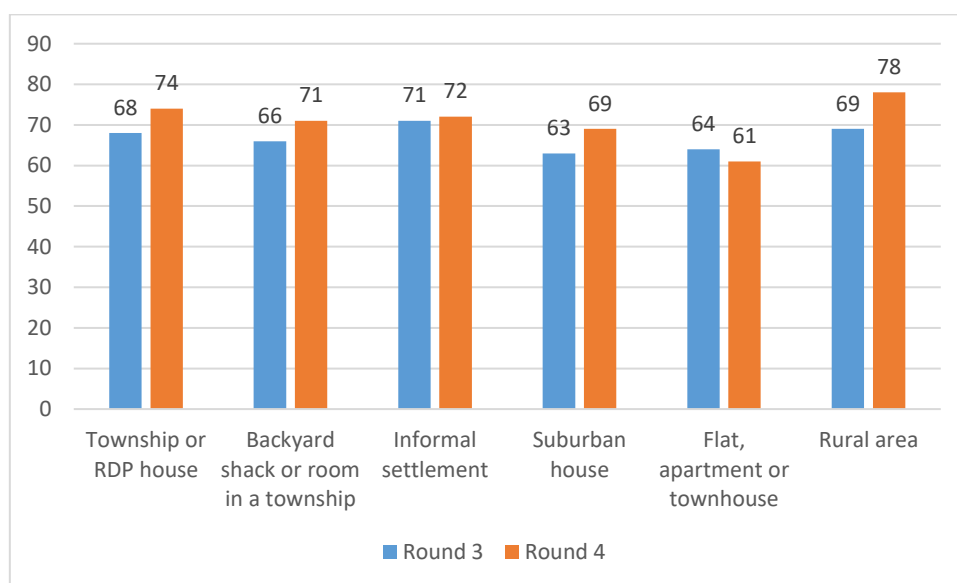
Table 7 shows vaccine acceptance in relation to settlement type. Suburban housing scores low on acceptance but high on 'I've already had the vaccine'. This mirrors what we have seen with White adults, a very high proportion of whom live in the suburbs. The highest rate of acceptance is in the rural areas, where levels of vaccination are also high. Backyard shacks, backyard rooms and informal settlements also score high on acceptance, but they score low on *already vaccinated*. There is a ten percentage point difference between the vaccination rate in rural areas (14%) and in backyard shacks and rooms (4%). Doubtless, a number of factors underpin this contrast, including age, employment, and, possibly, the quality of the roll-out programme.

Table7: Vaccine acceptance / hesitancy in Round 4, by settlement type (%)

	I've already had the vaccine	Yes, I would definitely get the vaccine	I would probably get the vaccine	I would probably not get the vaccine	No, I would definitely not get the vaccine	(Don't know)	Total	Total accepting	Total hesitant
Township or RDP house	11	51	13	5	11	10	100	74	26
Backyard shack or room in a township	4	53	14	6	13	10	100	71	29
Informal settlement	6	54	12	5	11	12	100	72	28
Suburban house	18	39	12	7	19	6	100	69	31
Flat, apartment or townhouse	15	32	14	5	20	14	100	61	39
Rural area	14	54	10	5	10	8	100	78	22

Figure 8 demonstrates that the acceptance rate increased across all settlement types between round 3 and round 4 with the exception of those living in a flat, apartment or townhouse. The largest increase was among those who live in rural areas, which increased from 69% to 78%. The decrease in acceptance rate among those who live in flats, apartments or townhouses is likely to reflect the intersections of both age and race, as discussed above.

Figure 8: Change in vaccine acceptance between Rounds 3 and 4, by employment status (%)



Medical aid

Our question on medical aid was a new one introduced to the round 4 survey. We asked: ‘Are you covered by medical aid or a medical benefit scheme or other private health insurance?’ We were aware of a problem because, according to a presentation dated 21 June, the EVDS showed that, among the 60+ cohort, 48% of the insured had been vaccinated compared with 26% of the uninsured.⁸ Our survey shows something very similar, though for adults in general. 20% of the insured had been vaccinated compared with 10% of the uninsured (see Table 8). However, the problem does not lie with

⁸ NDoH, Covid-19 – Vaccination Programme. Provincial co-ordinators Meeting. 21 June 2021.

the acceptance rate. As shown in the same table, this was about the same for those who had medical aid membership or similar (75%) and those who did not (72%).

Possession of medical aid or similar is critical in explaining why some people are protected by vaccination, and some are not. While medical aid is related to income (whether one's own or that of a family member), the findings presented above suggest that this is not the only issue. We have too little information to know whether age is significant. Qualitative research indicates that access to vaccination sites might be critical.⁹ This is explored below in relation to car ownership.

Table 8: Vaccine acceptance / hesitancy in Round 4, by medical aid membership (%)

	I've already had the vaccine	Yes, I would definitely get the vaccine	I would probably get the vaccine	I would probably not get the vaccine	No, I would definitely not get the vaccine	(Don't know)	Total	Total accepting	Total hesitant
Yes	20	41	14	7	11	8	100	75	26
No	10	50	12	5	13	10	100	72	28

Car in the household

With car ownership we asked: 'Does any member of your household currently have a car in working condition?' Again this was a new question. The findings, seen in Table 9, are strikingly similar. For those with a car, 16% had already been vaccinated. For those without a car, it was only 9%. Again, hesitancy does not explain the difference. The figures for acceptance are similar for the two groups. It seems highly likely that access to vaccination sites, as reflected in car ownership, is implicated in whether or not people are vaccinated.

Table 9: Vaccine acceptance in Round 4, by presence of a car in household (%)

	I've already had the vaccine	Yes, I would definitely get the vaccine	I would probably get the vaccine	I would probably not get the vaccine	No, I would definitely not get the vaccine	(Don't know)	Total	Total accepting
Yes	16	40	13	6	16	8	100	70
No	9	51	12	5	12	10	100	72

The question of access and the importance of transport to vaccination sites and the availability of mobile vaccination sites, was something that Kate Alexander and Bongani Xezwi¹⁰ drew attention to based on their ongoing research on the vaccine roll-out. The then acting Minister of Health, Mmamoloko Kubayi, responded to this by echoing the call made by Alexander and Xezwi to get 'vaccines to the people'.¹¹ Internally, the NDoH and the provincial departments of health set about addressing the problem, but the process is uneven, with some provinces, notably Limpopo, running mobile clinics and outreach teams in isolated locations.¹²

⁹ Alexander, K. and Xezwi, B., UJ Social Change Vaccine Rollout Project. First Report: 17-31 May 2021. <https://www.uj.ac.za/faculties/humanities/Documents/Rollout%20Project%20first%20report%202020June%202%5B37%5D.pdf>. See also, Alexander, K. and Xezwi, B. (2021), Simple but urgent steps needed to end vaccine inequality involving South Africa's elderly, *Daily Maverick*, 30 June. <https://www.dailymaverick.co.za/article/2021-06-30-simple-but-urgent-steps-needed-to-end-vaccine-inequality-in-south-africas-elderly/>

¹⁰ See note 9 above.

¹¹ Kubayi, M. Acting Health Minister briefs media on latest COVID-19 developments, 18 June 2021. <https://www.youtube.com/watch?app=desktop&v=UjwbNzLIVFs%3Ft%3D10m08s>

¹² Limpopo Department of Health, Covid-19 Vaccine Rollout Strategy: Best Practice Input, 13 August 2021. <https://sacoronavirus.co.za/2021/08/13/limpopo-department-of-health-covid-19-vaccine-rollout-strategy/>

The class issue, as represented in medical aid and car ownership, has far-reaching implications for the government’s 80% target and it is also a matter of concern for human rights. It is therefore essential for civil society to monitor the situation and hold the government to account. Trust would be enhanced by the NDoH making its EVDS breakdown of vaccinations by ‘medical aid’ publicly available

Politics and beliefs

Political party support

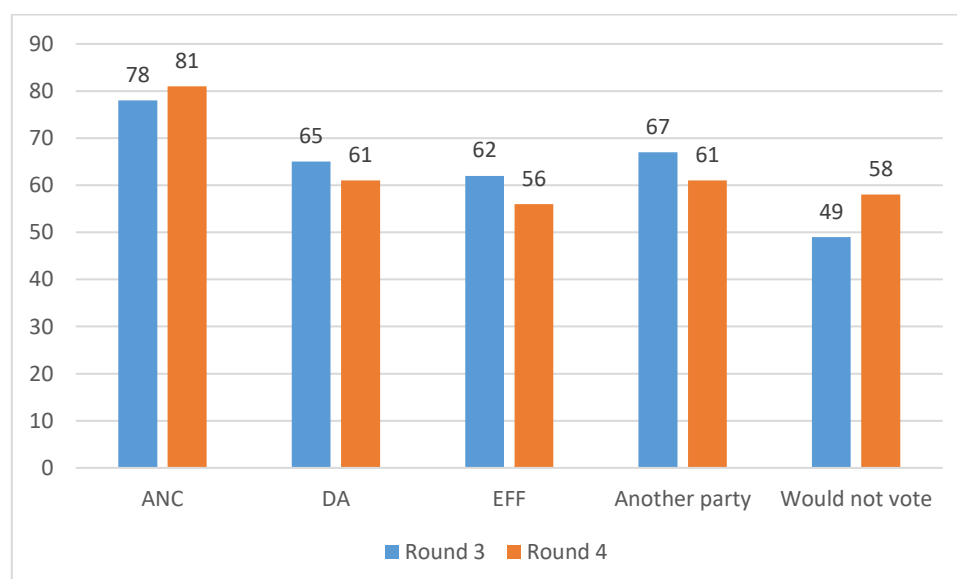
Respondents were asked: ‘If a national election were to be held tomorrow, which party would you vote for? As can be seen in Table 10, differences are substantial. Acceptance is 20% higher among ANC supporters than those backing the DA, and 25% higher than those backing the EFF.

Table10: Vaccine acceptance / hesitancy in Round 4, by political party support (%)

	I've already had the vaccine	Yes, I would definitely get the vaccine	I would probably get the vaccine	I would probably not get the vaccine	No, I would definitely not get the vaccine	(Don't know)	Total	Total accepting	Total hesitant
ANC	11	61	10	4	8	7	100	81	19
DA	13	33	15	6	20	14	100	61	39
EFF	3	39	14	10	24	11	100	56	44
Another party	7	39	15	6	23	10	100	61	39
Would not vote	8	37	14	6	23	12	100	58	42

As Figure 9 demonstrates, the gap between the parties has expanded, with acceptance among ANC supporters increasing by three percentage points since Round 3, and acceptance among DA and EFF supporters declining by, respectively, four and six percentage points. Again, this likely reflects complex dynamics between race, age and other factors. However, what this underlines is the role that political parties can have in encouraging their supporters to vaccinate.

Figure 9: Change in vaccine acceptance between Rounds 3 and 4, by party political support (%)



Evaluation of presidential and government performance

Table 11 summarises responses to the question: ‘Would you say that President Ramaphosa is doing a good job or a bad job in responding to the Coronavirus outbreak?’ The acceptance rate among those who think he is doing a good job is 37 percentage points higher than those who think he is doing a bad job. However, while overall vaccine acceptance increased between Round 3 and Round 4 (see table 12), the proportion saying the president was doing a ‘good job’ dipped in the same period from 80% to 66% (similar to the Round 2 figure of 65%). The implication is that we should not exaggerate the significance of the president’s personal standing as a determinant of vaccine acceptance.

Table 11: Vaccine acceptance in Round 4, by evaluation of the presidential COVID-19 performance (%)

	I've already had the vaccine	Yes, I would definitely get the vaccine	I would probably get the vaccine	I would probably not get the vaccine	No, I would definitely not get the vaccine	(Don't know)	Total	Total accepting	Total hesitant
Good job	13	59	11	4	7	13	100	82	18
Neutral	7	34	18	9	18	7	100	59	41
Bad job	6	25	14	9	37	6	100	45	55
Don't know	8	25	14	8	21	8	100	47	53

Table 12: Change in vaccine acceptance / hesitancy between survey rounds 3 and 4, by evaluation of the presidential COVID-19 performance (%)

	Round 3		Round 4		Percentage point Increase / decrease in acceptance
	Total accepting (already had / definitely / probably get)	Total hesitant (definitely / probably not get / don't know)	Total accepting (already had / definitely / probably get)	Total hesitant (definitely / probably not get / don't know)	
Good job	73	27	82	18	+9
Neutral	50	49	59	41	+8
Bad job	36	65	45	55	+9
Don't know	34	66	47	53	+13

Willingness to sacrifice human rights

As in previous rounds, we asked people if they were ‘willing to sacrifice some ... human rights if it helps prevent the spread of the virus.’ As shown in Table 13, people who agreed with the statement showed a much higher level of vaccine acceptance. This is also what we found in Round 3 (see table 14). The level of acceptance increased slightly more among those who were *willing* (up five percentage points to 78%) than among those who were *unwilling* (up two percentage points to 42%).

Table 13: Vaccine acceptance / hesitancy in Round 4, by willingness to sacrifice human rights (%)

	I've already had the vaccine	Yes, I would definitely get the vaccine	I would probably get the vaccine	I would probably not get the vaccine	No, I would definitely not get the vaccine	(Don't know)	Total	Total accepting	Total hesitant
Agree	11	55	12	4	9	9	100	78	22
Neutral	9	32	16	8	18	17	100	57	43
Disagree	6	24	12	11	39	9	100	42	58
Don't know	10	41	8	5	16	20	100	59	41

Table 14: Change in vaccine acceptance / hesitancy between survey rounds 3 and 4, by willingness to sacrifice human rights (%)

	Round 3		Round 4		Percentage point Increase / decrease in acceptance
	Total accepting (already had / definitely / probably get)	Total hesitant (definitely / probably not get / don't know)	Total accepting (already had / definitely / probably get)	Total hesitant (definitely / probably not get / don't know)	
Agree	73	26	78	22	+5
Neutral	51	50	57	43	+6
Disagree	40	60	42	58	+2
Don't know	39	61	59	41	+20

Religiosity

For Wave 4 we added a new question on religion, asking: ‘How religious would you say you are?’ The findings are presented in Table 15. While acceptance levels are similar, those who say they are religious all register acceptance figures above 70% and those who say they are non-religious all have acceptance figures below 70%.

Table 15: Vaccine acceptance / hesitancy in Round 4, by religiosity (%)

	I've already had the vaccine	Yes, I would definitely get the vaccine	I would probably get the vaccine	I would probably not get the vaccine	No, I would definitely not get the vaccine	(Don't know)	Total	Total accepting	Total hesitant
Extremely religious	12	53	9	4	14	8	100	74	26
Very religious	12	50	12	5	12	10	100	73	27
Somewhat religious	11	47	15	6	11	9	100	73	27
Neither religious nor non-religious	9	46	16	6	11	12	100	71	29
Somewhat non-religious	11	41	18	10	10	10	100	71	29
Very non-religious	8	52	9	6	19	7	100	68	32
Extremely non-religious	8	50	12	8	17	6	100	69	31
(Can't choose)	3	45	12	5	18	16	100	61	39
(Don't want to say)	7	41	11	9	17	16	100	58	42

These findings are especially interesting in light of reports on the recent Afrobarometer survey.¹³ This polling organisation asked: ‘Some people think that prayer is an *effective* way to *alter* events in the world. Others put more *faith* in science to *solve* problems. Some people *believe* in both. What about you? Do you think that prayer is more effective or less effective than vaccine would be in preventing COVID-19 infection?’ This question leads the respondent by contrasting ‘effective’ and ‘alter’, respectively a relatively weak adjective and relatively weak verb, with ‘faith’ and ‘solve’, which are stronger in comparison, making it more difficult to agree to them. The alternative is to ‘believe’ in science as if it is a religion (rather than accepting the merits of science, for instance). Moreover, the question offers a false choice, pressing the respondents to deny their God and the benefit of prayer when this is unnecessary. In this poorly formulated question *prayer* came out on top (47%) and vaccines were bottom (25%).

¹³ Afrobarometer. News release: South Africans unsure of safety of Covid-19 vaccines; many unlikely to get vaccinated. 28 July 2021. <https://afrobarometer.org/press/south-africans-unsure-safety-covid-19-vaccines-many-unlikely-get-vaccinated>

While particular religious affiliations may discourage some people from vaccinating, most religions and religious leaders favour vaccination. In general, religiosity has little impact on hesitancy, and, if anything, people who are religious are less hesitant.

Vaccine knowledge and proximity to infections

Vaccine knowledge

As part of the survey, we asked people to evaluate their knowledge about Covid-19 vaccines. 50% said they knew a lot or a fair amount, 33% said a little, and 6% said nothing at all. This data was cross-tabulated with our data on vaccine acceptance and hesitancy. The results are presented in Table 16. They show that people who know ‘a lot’ (or think they do) are more accepting than those who say they know ‘nothing at all’. The contrast between the two ends of the knowledge spectrum is 17 percentage points.

Table 16: Vaccine acceptance / hesitancy in Round 4, by COVID-19 vaccine knowledge (%)

	I've already had the vaccine	Yes, I would definitely get the vaccine	I would probably get the vaccine	I would probably not get the vaccine	No, I would definitely not get the vaccine	(Don't know)	Total	Total accepting	Total hesitant
A lot	14	57	9	4	13	4	100	79	21
A fair amount	9	52	13	5	12	8	100	74	26
A little	9	47	16	6	11	11	100	72	28
Nothing at all	13	40	10	7	16	15	100	62	38

There was no objective test of knowledge in the questionnaire (though what respondents say about themselves may be conditioned by comparison with others they engage with). However, people’s self-awareness is critical. Therefore, it is likely that, as people become more knowledgeable, they also become more accepting of vaccination.

Vaccine information sources

Given the significance attached to communication and education in winning support for vaccination, sources of information are important in developing an effective communication strategy. Before coming to the level of acceptance associated with each source, we need to start with impact. We asked: ‘What have been your main sources of information about Covid-19 vaccines?’ Respondents could give more than one answer if they wanted. Table 17 provides a breakdown by age.

Table 17: COVID-19 vaccine information sources in Round 4, by age groups (EVDS categories)

	18-34	35-49	50-59	60+	Total
Television	74	73	75	50	71
Radio	48	53	52	37	49
Medical professionals (doctors & nurses)	19	23	24	20	21
Government health officials	23	27	25	11	23
Local government (such as your municipality)	12	14	15	6	12
News sites on the Internet, or newspapers	39	38	30	14	34
WhatsApp	25	25	26	10	23
Social media, such as Facebook, Twitter, etc.	41	34	30	11	34
Friends, family and colleagues	24	25	29	13	24
Flyers, pamphlets and information sheets	12	16	19	4	13
Medical aid	5	6	7	3	5
Other	7	6	5	13	7

Regardless of age, television was the most cited source of information about Covid-19 vaccines. It is by far the most influential medium in South Africa, only scoring less than 70% in the over 60 age group. Radio is the next most used medium. Social media does have considerable influence, but, as we can see above, it is in third place for 18-34 year olds and for 50-59 years olds (equal with news sites and newspapers in the latter case), in fourth place for 35-49 year olds, and in sixth place for the 60+ group (who put medical professionals in third place). ‘Local government’, which includes councillors, and ‘flyers etc.’ are relatively unimportant, as is medical aid (where influence would be limited to those with coverage, about 17% of the population).

Table 18: Vaccine acceptance / hesitancy in Round 4, by COVID-19 vaccine information sources (row %)

	I've already had the vaccine	Yes, I would definitely get the vaccine	I would probably get the vaccine	I would probably not get the vaccine	No, I would definitely not get the vaccine	(Don't know)	Total	Total accepting	Total hesitant
Television	9	51	13	5	12	10	100	73	27
Radio	10	53	13	5	11	9	100	75	25
Medical professionals (doctors & nurses)	14	52	10	4	12	7	100	76	24
Government health officials	9	57	13	5	9	7	100	79	21
Local government (such as your municipality)	10	57	12	5	10	6	100	79	21
News sites on the Internet, or newspapers	7	49	14	6	13	10	100	71	29
WhatsApp	7	52	14	5	13	10	100	73	27
Social media, such as Facebook, Twitter, etc.	5	48	14	6	15	12	100	67	33
Friends, family and colleagues	8	50	15	6	13	9	100	72	28
Flyers, pamphlets and information sheets	9	59	13	4	9	6	100	81	19
Medical aid	10	55	16	6	9	5	100	80	20
Other	15	40	9	6	18	11	100	65	35

Vaccine acceptance rates by vaccine information source are presented in Table 18. People who had received information from medical professionals had the highest uptake of actual vaccination (14%). Vaccine acceptance was especially high amongst those who had received information via flyers, pamphlets, and information sheets (81%), their medical aid (80%), local government (79%), and government health officials (79%). The highest level of hesitancy is that associated with social media, with an acceptance figure of just 67%.

The relatively greater importance of social media for 18-34 year olds is probably a factor in their higher degree of hesitancy, but it would be a mistake to assume this is the most crucial consideration. While it is necessary for health media activists to compete in the social media space, the overall influence and importance of television and even radio have probably been underestimated. Furthermore, the analysis demonstrates the importance of different arms of government, whether local, provincial or national, in providing information on vaccination. This underscores the need for attention to increase and improve content about vaccination for multiple platforms.

Proximity to Covid-19 Infections

Attempting to discern whether direct knowledge of somebody with Covid-19 had an appreciable impact on acceptance, we asked: ‘Do you personally know anyone who has been infected with Covid-19 or is currently infected?’ Respondents were allowed to select as many options as applied to them. The data presented in Table 19, suggest that social proximity made little difference and confirms what we saw in round 3 (see table 20). Indeed, in round 4, people who knew nobody who had been infected were slightly more accepting than those who had been infected themselves. The highest level of acceptance, 74%, was among those in the same household as somebody infected. The largest increase in the acceptance rate was also amongst this group (see table 20), up nine percentage points (compared with, for example, a one percentage point increase for ‘someone else I know’).

Table 19: Vaccine acceptance / hesitancy in Round 4, by proximity to COVID-19 infections (%)

	I've already had the vaccine	Yes, I would definitely get the vaccine	I would probably get the vaccine	I would probably not get the vaccine	No, I would definitely not get the vaccine	(Don't know)	Total	Total accepting	Total hesitant
Yes, myself	11	47	10	4	17	11	100	68	32
Yes, someone who stays in the same household as me	10	50	14	5	12	9	100	74	26
Yes, a member of my extended family who does not live with me	12	48	12	5	13	10	100	72	28
Yes, a close friend	9	46	13	7	16	9	100	68	32
Yes, someone else I know	9	49	13	6	13	10	100	71	29
No, I do not know anyone	12	48	12	5	13	11	100	72	28

Table 20: Change in vaccine acceptance / hesitancy between survey rounds 3 and 4, by proximity to COVID-19 infections (%)

	Round 3		Round 4		Percentage point Increase / decrease in acceptance
	Total accepting (already had / definitely / probably get)	Total hesitant (definitely / probably not get / don't know)	Total accepting (already had / definitely / probably get)	Total hesitant (definitely / probably not get / don't know)	
Yes, myself	65	35	68	32	+3
Yes, someone who stays in the same household as me	65	35	74	26	+9
Yes, a member of my extended family who does not live with me	66	34	72	28	+6
Yes, a close friend	65	35	68	32	+3
Yes, someone else I know	70	30	71	29	+1
No, I do not know anyone	65	35	72	28	+7

Conclusion

Between Round 3 and Round 4 of the UJ/HSRC Covid-19 Democracy, the rate of vaccine acceptance among adults in South Africa increased by five percentage points from 67% to 72%. This is positive news. But, if everybody who says they intend to vaccinate does, we will still fall short of the government's 80% target by eight percent. We are moving in the right direction, but the challenge is considerable. The problems are twofold, hesitancy and access, neither of which is spread evenly across the population.

The problem of hesitancy is brought into focus when considering age. Among people aged 55 years and above, the acceptance rate increased by 11 percentage points between Rounds 3 and 4, rising from 74% to 85%. At the other end of the age spectrum, acceptance among adults aged 18-24 years declined by eight percentage points, falling from 63% to reach 55%. Among pensioners, the acceptance rate is now 90%, but among students it is 58%.

Race is implicated somehow. Black African adults were the most accepting (75%) but the least vaccinated (10%). White adults are the least accepting (52%) but most vaccinated (16%). Moreover, there had been an increase in acceptance among Black African adults and a decline among White adults. The higher rates of hesitancy among White adults mirrors international trends that demonstrate that minority racial and ethnic groups tend towards greater levels of vaccine hesitancy.¹⁴

The report suggests that a problem may exist regarding access when it comes to moving people from their willingness to vaccinate to actually being vaccinated. This comes to the fore when contrasting between the rate of acceptance and the rate of vaccination. This is primarily related to class issues.

Concerning medical aid, the acceptance rate is similar for people regardless of whether they are covered, but the rate of vaccination is twice as high among those who are covered than those who are not (20% versus 10%). Similarly, with having a car in working order in the household, the level of acceptance was roughly the same regardless of whether or not there was one, but on the rate of vaccination, those with a car have a considerably higher rate of actual vaccination (16% versus 9%).

'Settlement type' might hold a clue. Those living in townships and informal settlements had higher rates of acceptance and lower vaccination levels than those in suburban housing. This reveals something about the intersection between race and class, perhaps. However, out of six categories considered, five had increased acceptance rate and one did not. The exception was those living in flats, apartments or townhouses, this may reflect an intersection between race and age. Perhaps the most interesting of the settlement findings is that people in rural areas are more accepting than those in urban areas, though only a third in their level of vaccination. At any rate, age, geographical location, and race are probably factors in what, at first sight, appear to be contrasts based simply on class.

Whatever the explanation for inequalities in the vaccine roll-out, they need to be addressed, not only for reasons of equity and reaching the 80% target, but also because, if they are not addressed, and quickly so, the government risks losing the trust of some of the population.

There are further findings that are worthy of mention. First, acceptance is associated with knowledge, with politics, and with a pro-social tendency to make sacrifices for the common good. Second, any association between religiosity and acceptance is weak or non-existent. Third, the data demonstrates that men are not less accepting of taking the vaccine than women. The differences between the intention to vaccinate and the uptake of the vaccine likely stem from different issues. Access may be

¹⁴ See Khan, M.S., Mohsin Ali, S.A., Adewlaine, A. and Karan, A. 2021. Rethinking vaccine hesitancy among minority groups. *The Lancet* 397(10288): 1863-1865;

one. Men are more likely than women to be employed in the formal labour market and may face more limitations in accessing vaccination sites, which are still predominately being offered during the working week. Another issue of concern may be that men, in general, delay in seeking healthcare.¹⁵ Therefore, in this instance, what we are confronting is not only vaccine hesitancy but a more generalised problem regarding men and preventive health care.

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¹⁵ See Chikovore, J., Gillespie, N., McGrath, Orne-Gilemann, J. and Zuma, T. 2016. Men, masculinity, and engagement with treatment as prevention in KwaZulu-Natal, South Africa. *AIDS Care* 28(3): 74-82.

