Working Paper: Trust in Institutions, COVID-19 Related Information Seeking and Vaccination Messaging in South Africa

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Data for this study was collected between May 24 and June 5, 2021. Facebook and Instagram users located in South Africa were invited to participate via paid advertisements. The study consists of two parts. First, we surveyed 1,585 South Africans to understand their general attitudes towards COVID-19, as well as their information seeking behavior during the pandemic. They were also asked about their most trusted sources of information and their views of the South African government's response. A smaller number of respondents (N = 1,180) took part in an online experiment that sought to determine the effectiveness of social media messaging strategies to promote vaccination, as well as the role that messenger characteristics play in shaping the effectiveness of these messages.

Study 1: Online Survey on COVID-19, Media Consumption, and Trust in Institutions

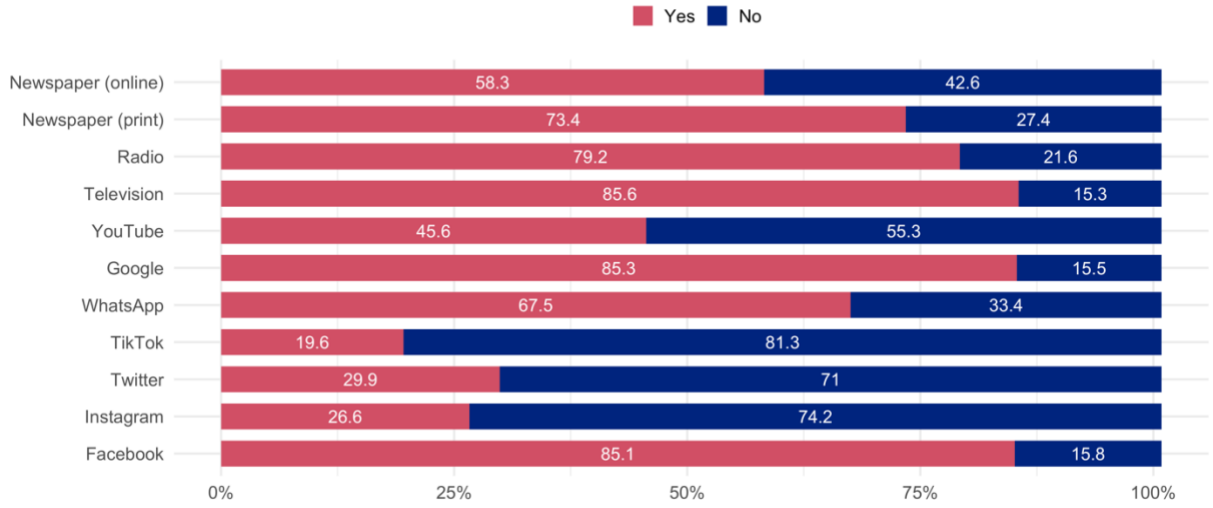
COVID-19 News Consumption Practices

Research during the early days of the COVID-19 pandemic has indicated that citizens turned to established news sources for information on the virus, remedies, and government responses. Previous research has also shown that South Africans have a high interest in news, with legacy media like television and radio still high on the list of offline media consumed by South Africans, followed by newspapers - although the latter has been experiencing a steep decline. During the COVID-19 lockdown period, South African news websites saw a steep increase in traffic. Against this background, we asked South Africans whether they use certain media sources to get information about COVID-19.

Given the high use of online media during the pandemic, as well as the prevalence of disinformation on social media, our study targeted social media users, but also asked questions about their general media use. We found that, in general, the majority of respondents still consulted established news media sources like television (85.6%), radio (79.2%) and newspapers (online 58.3%, print 73.4%) more than they did social media, with the exception of Facebook, which had a high usage (85.1 %), followed by WhatsApp (67.5 %). Google was also a popular platform to obtain information from (85.3 %), but other social media platforms like TikTok (19.6 %), Twitter (29.2 %), Instagram (26.6 %) and YouTube (45.6 %) were much less popular sources of information.

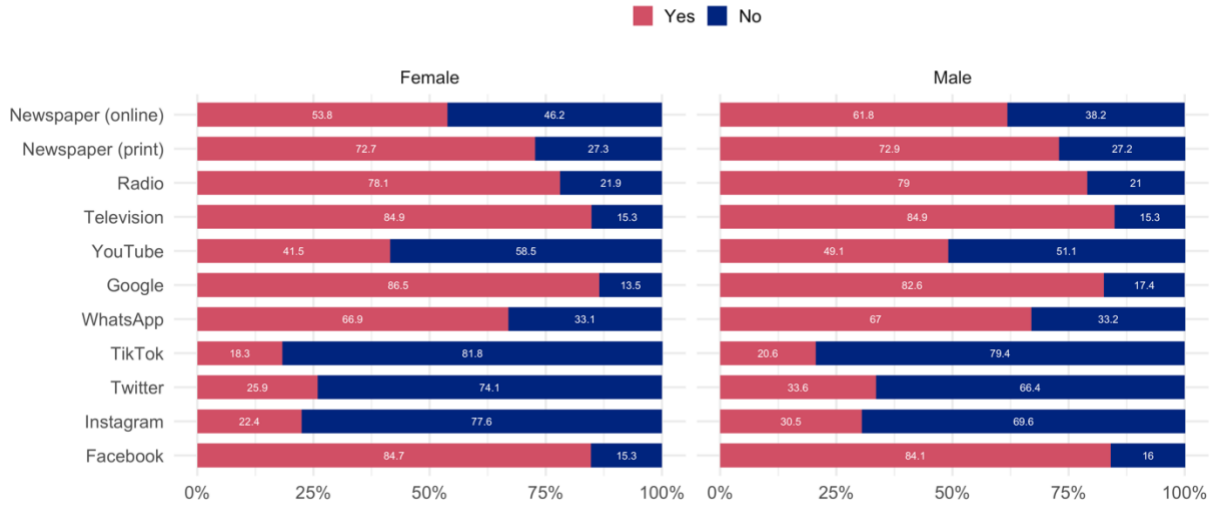
It is important to acknowledge here that, since the data for this study was collected through social media, values for social media use for information purposes might be higher in our findings than among the general population, including those that are not on social media and, therefore, could not take part in our survey.

Figure 1. COVID-19 News Consumption Habits in South Africa
Do you ever use any of the following to get information about COVID-19?



If we aggregate these data in two groups, "legacy media" (TV, radio, print and online newspapers) and "digital/new media" (Facebook, Twitter, Instagram, Google, WhatsApp, Tik Tok and YouTube), we can see that there are quite significant differences. The average use of traditional media to get information about COVID is around 74%, while digital/social media stands at 51% across all groups. In other words, when it came to getting information about the pandemic, South Africans appeared to rely mostly on "traditional" media sources.

Figure 2. COVID-19 News Consumption Habits (by gender)
Do you ever use any of the following to get information about COVID-19?



We can further break down these data by demographic groups. Overall, there was not a big difference between male and female respondents in terms of their preference for media outlets, with a slightly higher preference for Twitter among males than females. Age was not a major determinant of preference for media outlet, although some social media outlets (notably Instagram, TikTok were more popular as a source of information about COVID-19 among younger users (18-29 and 30-39) than older cohorts. There was a slight preference for printed newspapers among users with some university education, and for radio among users with only secondary education. More users with home languages other than Afrikaans and English said they prefer radio and television as sources of information about COVID-19 than Afrikaans and English speakers.

Figure 3. COVID-19 News Consumption Habits (by age group)
Do you ever use any of the following to get information about COVID-19?

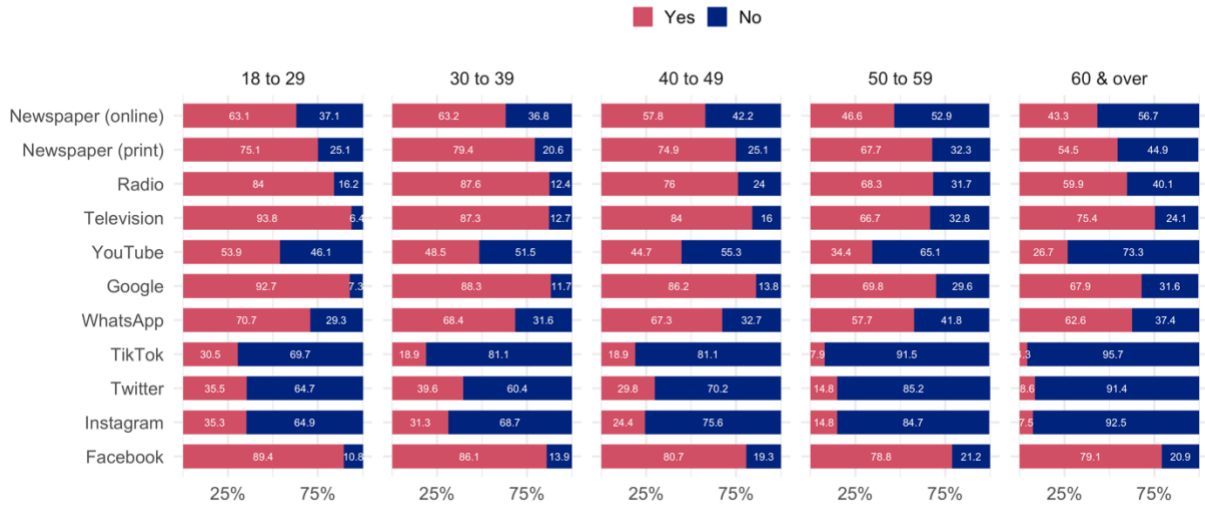


Figure 4. COVID-19 News Consumption Habits (by education level)
Do you ever use any of the following to get information about COVID-19?

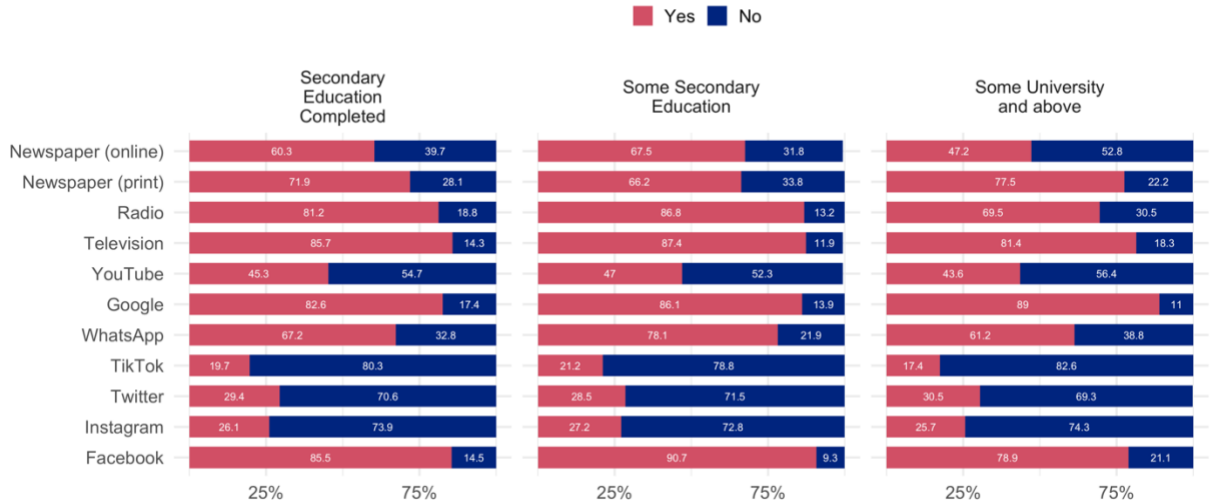


Figure 5. COVID-19 News Consumption Habits (by voting intention)
Do you ever use any of the following to get information about COVID-19?



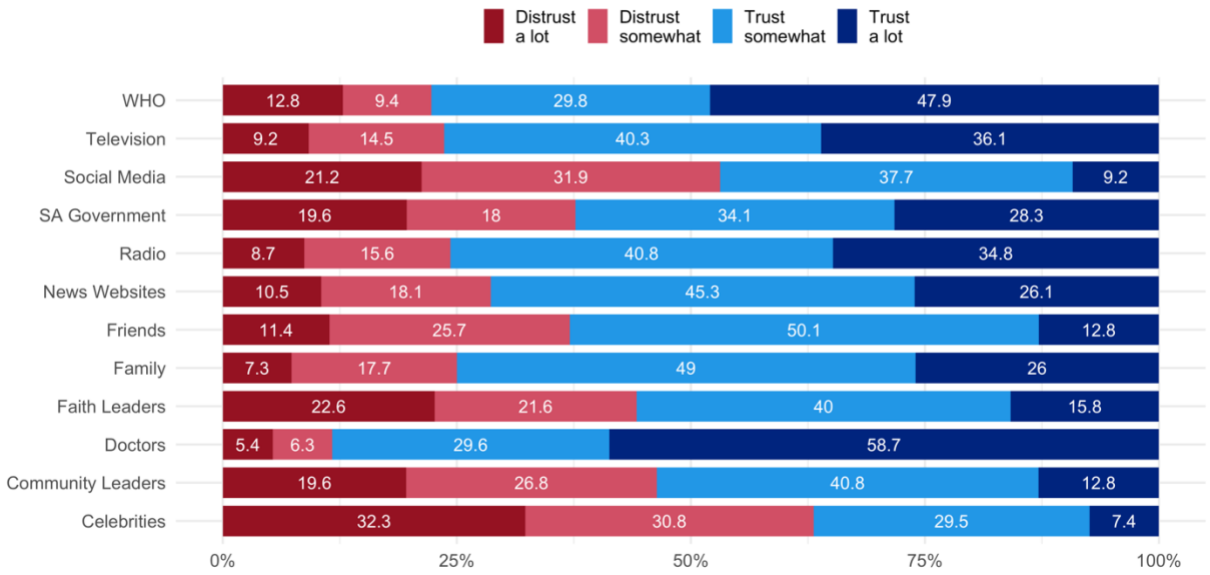
Overall, we could conclude that news consumption practices were relatively similar across groups.

COVID-19 and Trusted Sources of Information

In the context of an increased perception of the prevalence of disinformation in society, trust plays a very significant role in successfully communicating health-related information. We asked survey participants how much they trusted COVID-19 related information that comes from 12 sources, including news media, institutions, acquaintances, and others. We found that, overall, medical doctors and the World Health Organization were the most trusted sources of information, followed by radio and television. News websites, family, and the South African government were less trusted, but still more trusted than social media, friends, community leaders, celebrities, and faith leaders. In the charts below, blue tones are associated with higher levels of trust, and red tones with lower levels of trust.

Figure 6. Trust in Sources of information About COVID-19 in South Africa

When it comes to information about COVID-19, how much do you trust information that comes from the following sources?



To compare these data more easily across actors, we can create an index ranging from 0 (lowest level of trust) to 3 (highest level of trust). On this scale, the overall trust in these 12 sources of COVID-19 related information is 1.8. Overall trust in media sources (including TV, radio and news websites), is 2.0, while the overall level of trust for institutions (i.e., WHO and SA government) is 1.7, even though, as shown below, South Africans say they trust information from the World Health Organization (WHO) substantially more than information that comes from the South African government in general. Respondents who intend voting for the ANC or EFF tended to trust the government's communication more than supporters of other parties.

Figure 7. Mean Trust in Sources of COVID-19 Information in South Africa

On a scale from 0 (distrust a lot) to 4 (trust a lot)

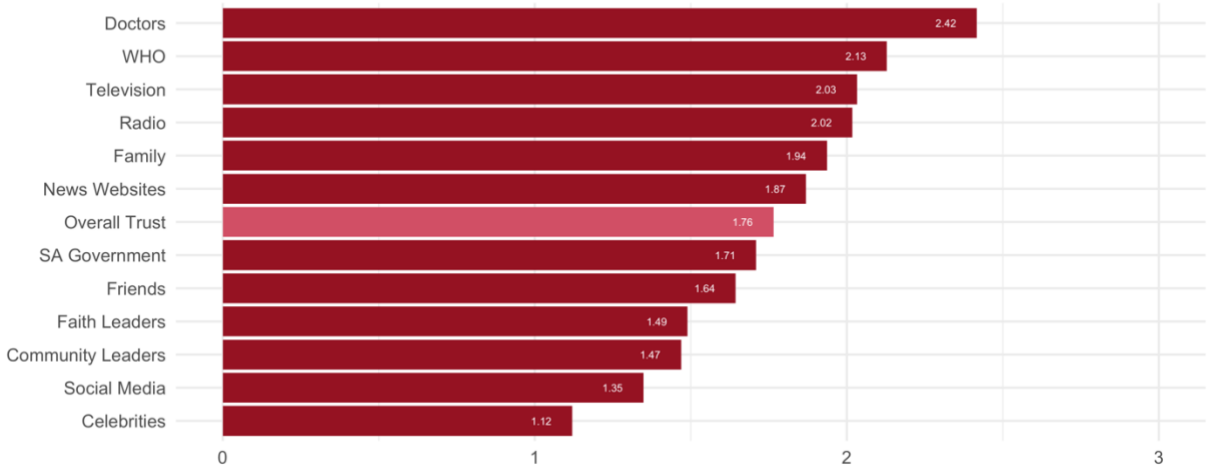


Figure 8. Mean Trust in Sources of COVID-19 Information in South Africa (by gender)

On a scale from 0 (distrust a lot) to 4 (trust a lot)

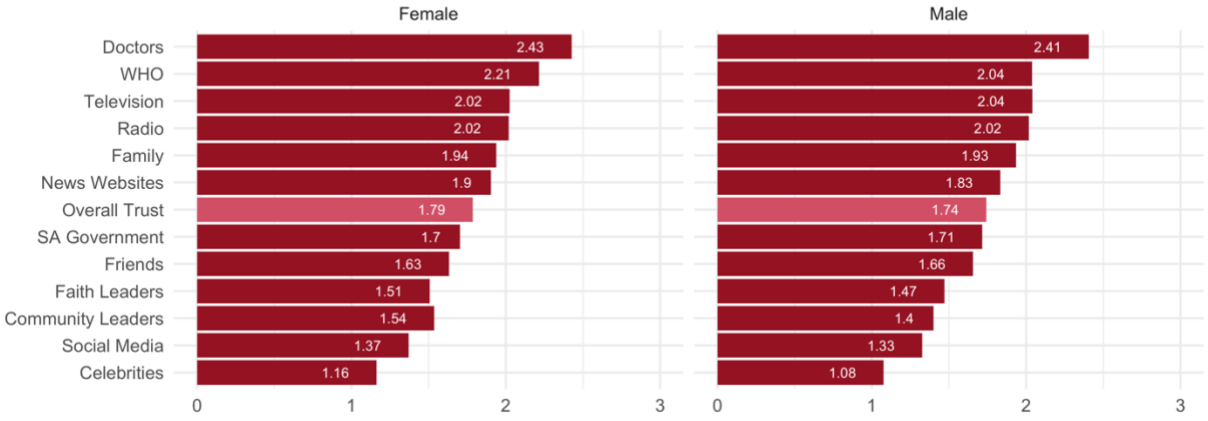


Figure 9. Mean Trust in Sources of COVID-19 Information in South Africa (by age group)

On a scale from 0 (distrust a lot) to 4 (trust a lot)

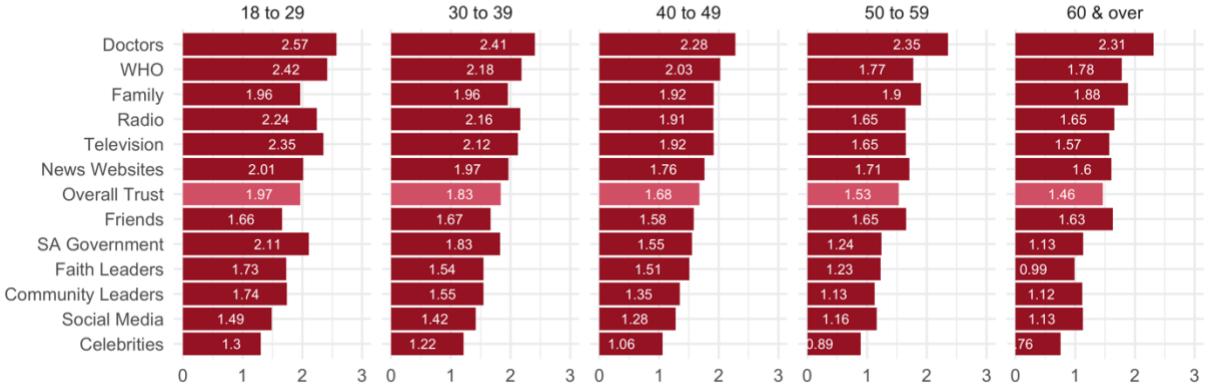


Figure 10. Mean Trust in Sources of COVID-19 Information in South Africa (by education level)

On a scale from 0 (distrust a lot) to 4 (trust a lot)

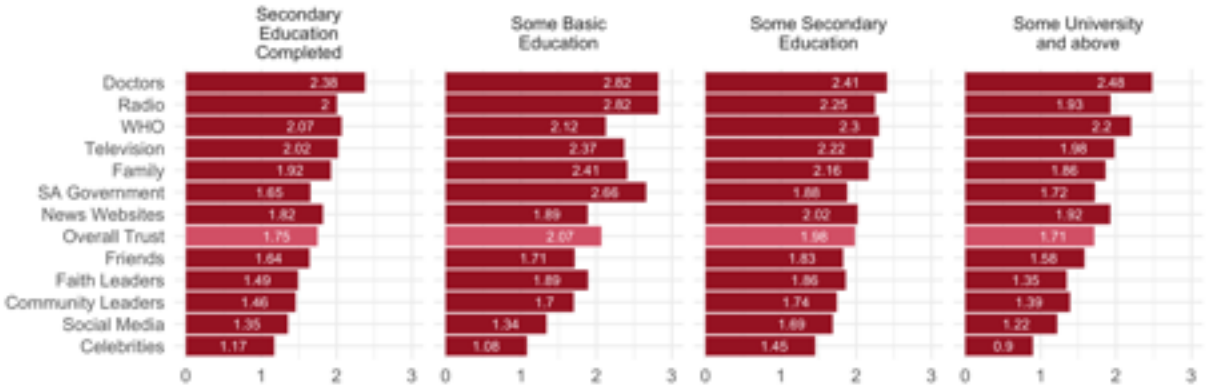
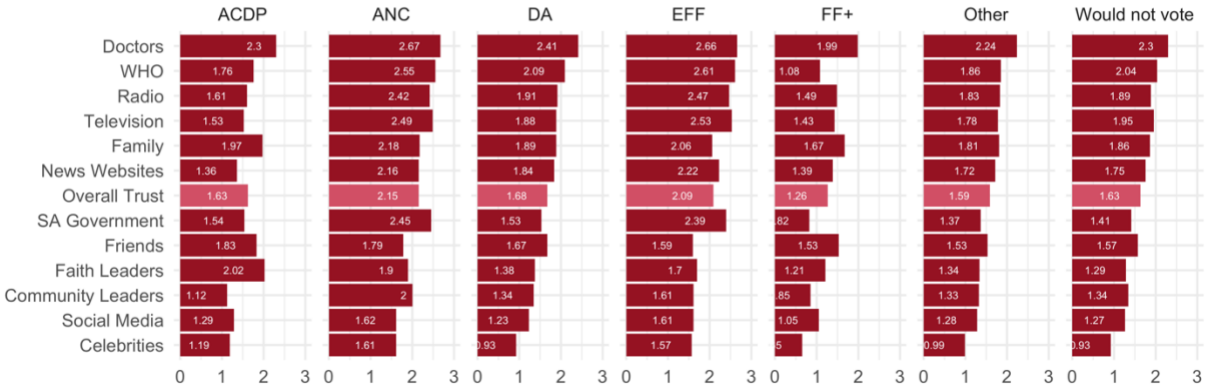


Figure 11. Mean Trust in Sources of COVID-19 Information in South Africa (by voting intention)

On a scale from 0 (distrust a lot) to 4 (trust a lot)

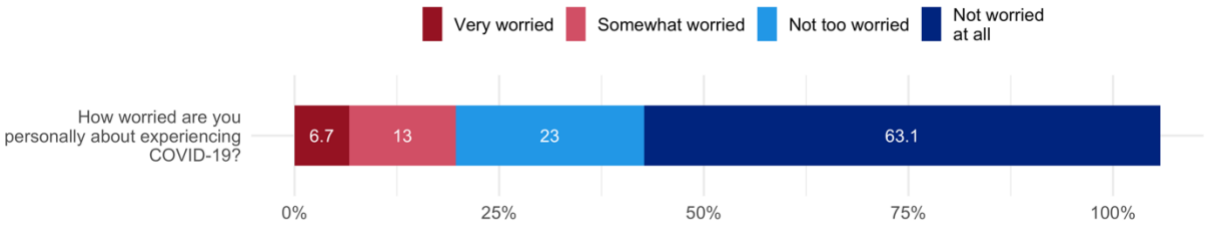


As shown in figures 8 to 11, when broken down by different demographics, we see little difference between males and females in the levels of trust in different information sources. Younger users put slightly more trust in the WHO than older users, while older users tend to trust family more as sources of reliable information about Covid-19 than younger users.

Attitudes towards and Responses to COVID-19

To explore South African's attitudes towards the COVID-19 outbreak, we asked them about their perceived risk of COVID-19. The vast majority said they were not too worried or not worried at all about the risk.

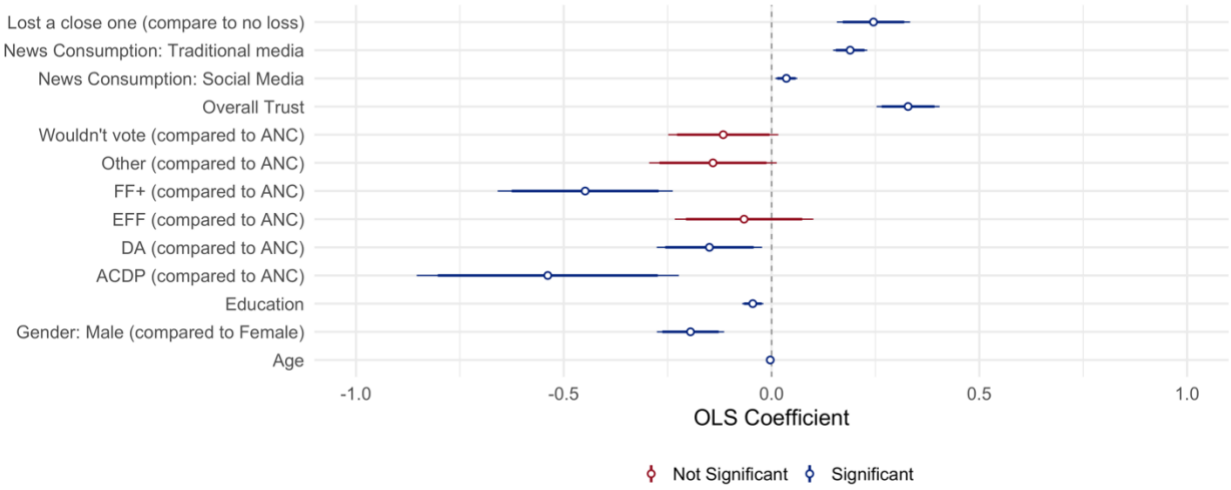
Figure 12. COVID-19 Risk Perception in South Africa



Risk perception differed by demographic groups. To understand how these differences operate, we built a regression model, that also considered people's overall trust, media consumption practices and personal experience with COVID-19. Participants identifying as males appear to be less likely to perceive COVID-19's risks than those identifying as females. The same can be said of younger South Africans and those with lower educational levels. On the other hand, higher levels of information seeking–whether on social media or through traditional media– as well as higher levels of trust overall are associated with higher perceptions of personal risk.

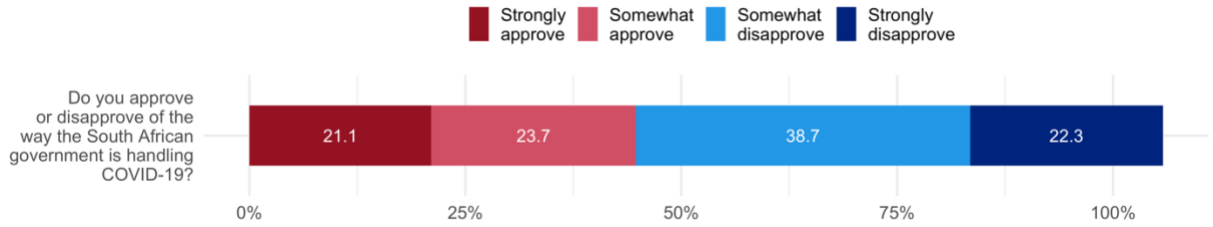
Figure 13. Determinants of COVID-19 Risk Perception in South Africa

Positive coefficients indicate higher perceived risk



Lastly, our survey asked participants about their evaluation of the South African government's response to the COVID-19 pandemic. We found that the majority of South Africans disapprove of the government's response. These levels are lower than those we found in another study one year earlier, where those approving the government's response were in the majority. This may indicate a deteriorating level of trust in the government, or a decrease in trust linked to other issues such as the vaccine rollout which is now higher on the news agenda.

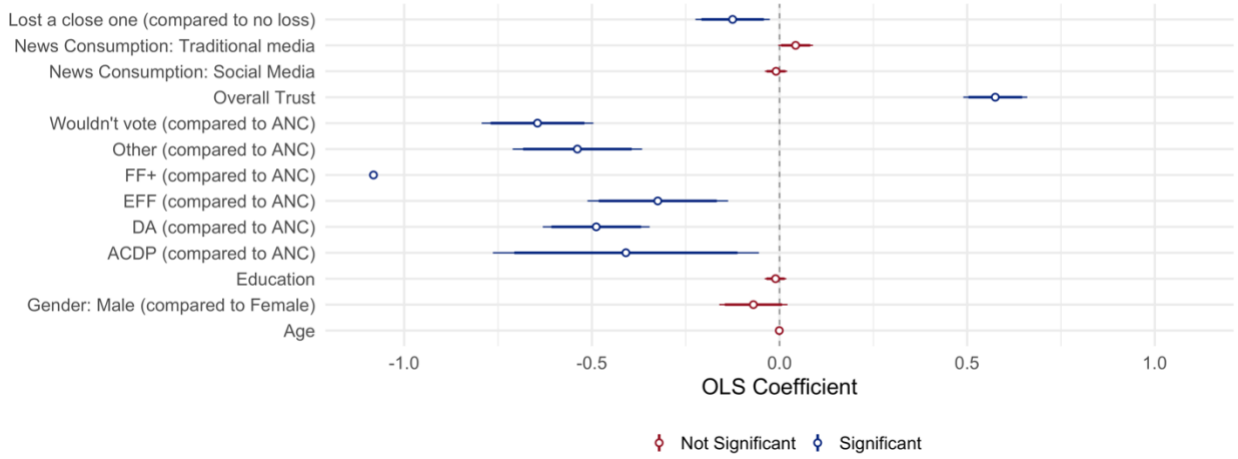
Figure 14. Evaluation of SA Government's Response to COVID-19



Media consumption did not appear to have an impact on the evaluation of the government's response. Two factors pop up clearly in the model. Higher levels of trust in general are associated with more positive evaluations of the government, while political affiliation to any party, other than the ruling ANC, is associated with more negative evaluations.

Figure 15. Determinants of Evaluation of Government's Response to COVID-19 in South Africa

Positive coefficients indicate more positive evaluation



Study 2: An Online Experiment Testing Audiences' Reponses to Institutional Messaging on COVID-19 Vaccination

The second part of this project (Study 2) involved an online experiment in which participants saw one of four versions of a Facebook post that included a video encouraging citizens to get vaccinated. Each of the four versions of the Facebook post was made to look like it had been posted from a different account. Two of these accounts were from political parties in South Africa (ANC and DA), and two were institutional accounts (WHO and South Africa's National Department of Health).

All four posts included the same video, which was designed to look like a #ViralFact message such as the ones distributed by the World Health Organization's Africa Infodemic Response Alliance (AIRA). The video combined two messaging strategies, "humor" and "fear". In selecting this message, we ran a pilot-study during which 4 versions of the message were tested. The

three other videos were excluded from the experimental design because, in the pilot study, they did not appear to activate the messaging strategies that were intended to be in use (version 1 combined “hope” and “fun”, version 2 mixed “fear” and “civic duty”, and version 3 used “hope” and “civic duty”).

Upon seeing one of the four messages (randomly assigned), experiment participants were asked two behavioral intention questions (sharing intention - whether they would share the message they had just seen and their willingness to get vaccinated) and one question to assess the credibility of the message.

Political Parties and Institutions as Health Messengers

The experiment found no significant differences in individuals' willingness to get vaccinated across the four versions of the post. In other words, seeing a message from a particular source (WHO, DA, ANC, SA Government) did not make citizen's more or less likely to get a vaccination. The lowest score, M_{ANC} = 4.31 (on a scale from 0 to 6), was among those who saw the post that was made to look like it came from the ANC's Facebook page. Messages that looked like they came from the DA or the National Department of Health increased the likelihood of users saying that they would get vaccinated. However, the difference with the other groups were not statistically significant (M_{DA} = 4.65; M_{WHO} = 4.42; M_{NDH} = 4.64). In Figure 16, the wider the graph, the larger the number of people who selected a given score. For example, those who saw the post attributed to the DA said they were “very likely” to get vaccinated a lot more than those who saw the ANC post.

Figure 16. Vaccination Intention Across Experimental Groups
On a scale from 0 (very unlikely to get vaccinated) to 6 (very likely)

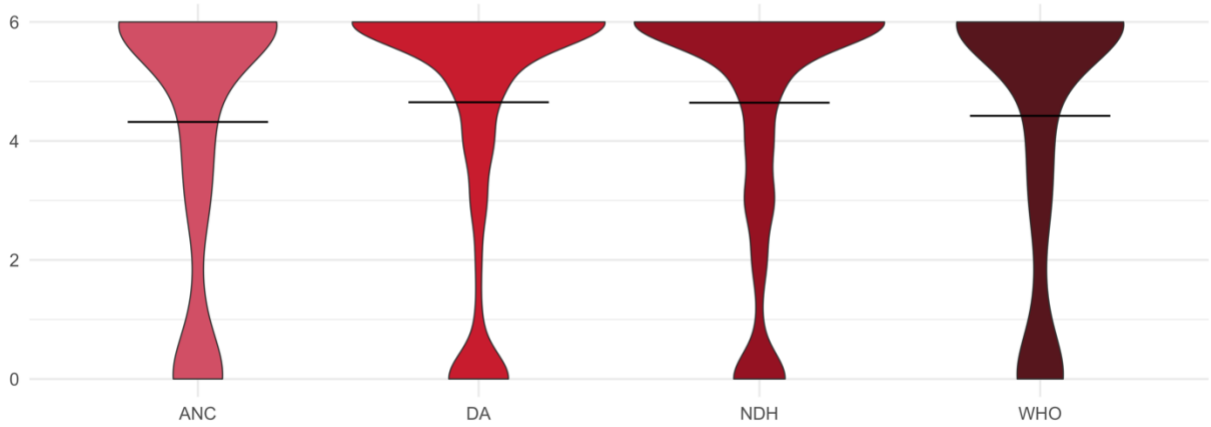
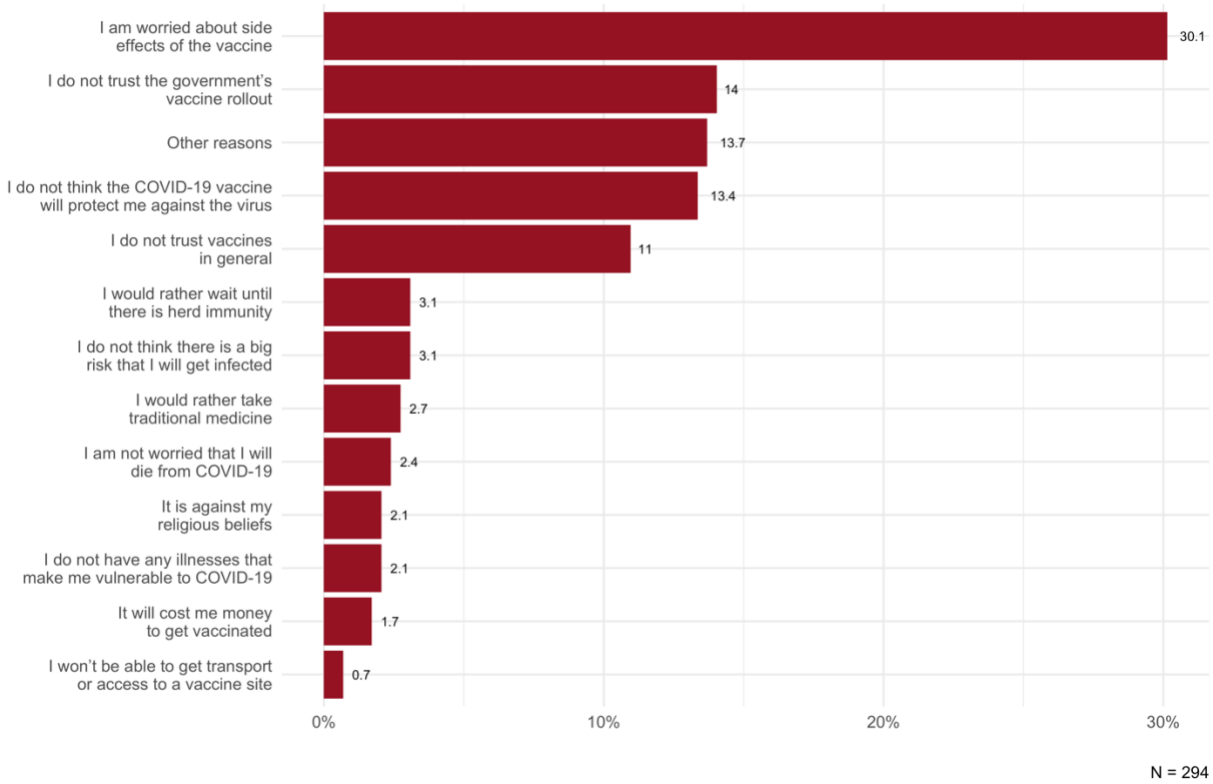


Figure 17. Reasons not to get a vaccine among South Africans



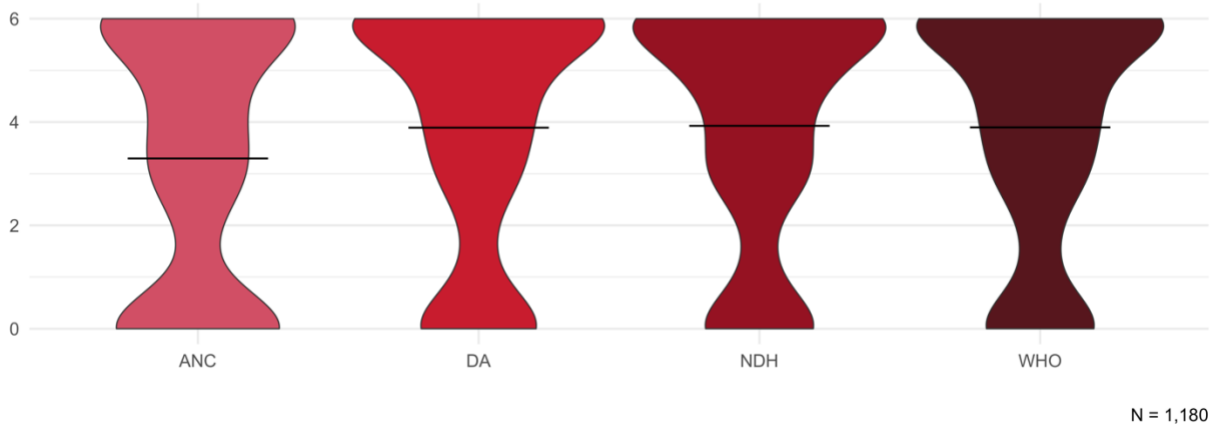
The overall high willingness to get vaccinated that we see in this study confirms findings by other researchers and suggests that vaccine hesitancy is not an underlying problem, but that media users have varying levels of trust in different messengers, and that these different levels of trust have an impact on vaccination-related behavioral outcomes.

Virality of Health Messages

We did observe statistically significant differences in the sharing intentions of the Facebook posts between the group of participants who saw the video coming from the ANC account, and all other groups. In particular, on a scale from 0 (very unlikely to share) to 6 (very likely to share), those who were shown the post coming from the ANC (M = 3.29) were less likely to share it than those who were told it came from the WHO (3.86), the NDH (3.92) and the DA (M = 3.89).

Figure 18. Willingness to Share the COVID-19 Vaccine Message on Social Media

On a scale from 0 (very unlikely to get vaccinated) to 6 (very likely)



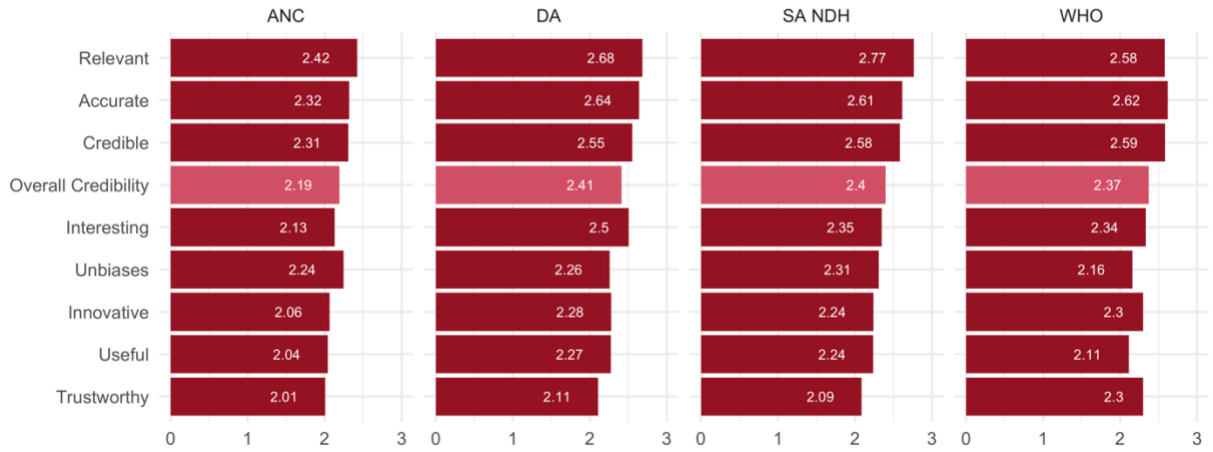
N = 1,180

In our previous studies, we established that one of the main motivators for sharing social media posts is to warn other users or create awareness. This link in the current experiment between trust in the communicator and shareability of a social media post may suggest that this motivator of civic duty is amplified by trust in the originator of the message. Further research on this area might provide us a better understanding on whether this mechanism operates across different types of social media messages.

Efficacy and Evaluation of Health Messaging on Social Media

After seeing the Facebook post, experiment participants were also asked about how credible they thought the message was. To do so, they were presented with eight pairs of adjectives and asked to evaluate the post on a five point scale. Overall, message credibility was the lowest among those that saw the Facebook post coming from the ANC's Facebook page (M = 2.22). Differences were most pronounced when compared to the message coming from the NDH (M = 2.44), than from the DA (M = 2.38) or the WHO (M = 2.32).

Figure 19. Credibility Evaluation of Messages Across Experimental Groups



In conclusion, our experiment suggests that South African media users strongly disapprove of the way that the government is handling the pandemic and the vaccine rollout, and have overall low levels of trust in the ANC. The experiment further suggests that this trust deficit in the messenger also negatively impacts on their trust in the message itself, and their likelihood to share messages. These findings have serious implications for the government's ability to communicate pro-vaccination information to its citizens.