The Optimise Study: Vaccination knowledge, attitudes and beliefs

Report 9 | August 2021







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The Optimise Study is a partnership between Burnet Institute and Doherty Institute in collaboration with University of Melbourne, Swinburne University of Technology, Monash University, La Trobe University, Murdoch Children's Research Institute, the Centre for Ethnicity and Health, and the Health Issues Centre.

Optimise is a longitudinal cohort study that will follow up to 700 participants for a 12-month period. Study participants are not intended to be representative of the broader population but instead have been intentionally recruited from key groups who are considered to be:

- at risk of contracting COVID-19
- at risk of developing severe COVID-19 or,
- at risk of the unintended consequences of the restrictions

Participants are then asked to nominate people who play a key role in their lives, and where permission is given, these people are also invited to participate in the study. Establishing a map of social connections is important because it can be used to examine the influence of the social network on an individual or key groups 1) behaviour including adhering to government directions on COVID-19, 2) attitudes and level of engagement in key COVID-19 interventions such as testing and vaccination, and 3) experience of the unintended consequences of COVID itself, or the government restrictions imposed due to COVID-19. The resulting social map increases our understanding of the interplay between the individual, social and community-level impacts of COVID-19. For more detail on the Optimise study please visit https://optimisecovid.com.au/

Vaccination

This report explores participants':

- Intentions to be vaccinated
- Motivating factors and concerns
- Knowledge and beliefs about vaccination
- Expectations for the future



This report draws on the findings from a number of Optimise research activities. These include:

- responses from 587 participants who completed the Optimise baseline survey, follow up surveys and contact diaries between 14 September 2020 and 1 August 2021.
- phone-based semi-structured qualitative interviews (n=23) conducted with a subset of survey participants conducted in December 2020 (n=7), May 2021 (n=9), and June 2021 (n=7).
- a Community Engagement Group meeting facilitated by the Centre for Health Communication and Participation at La Trobe University on 17 August 2021.

This report also includes summary findings from the COVID-19 Work and Health Study, the COVID-19 Attitudes, Resilience and Epidemiology (CARE) survey (see appendix 1 for full report), Coping with COVID study and the TIGER C19 study.

OPTIMISE COHORT

SUMMARY AND IMPLICATIONS

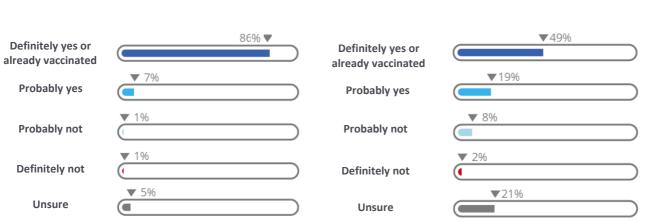
Intention to be vaccinated has increased markedly across all groups, but particularly amongst healthcare workers and people aged 35-44. There was a high level of understanding amongst participants that people require two jabs to be fully vaccinated against COVID-19 and that as many people as possible should be vaccinated. Although there was a mixed level of understanding about whether people can catch COVID, get sick from the virus and pass the virus on to others, after they have been vaccinated. Seventy-three percent of participants totally agreed that COVID-19 vaccines should be required for international travel to and from Australia, while 22% totally agreed and 46% somewhat agreed that vaccines are required to get back to normal life. Half of participants (50%) strongly disagreed that a person should not need to get tested for COVID-19 once they were vaccinated, even if they have symptoms. Those who consider mandatory vaccination to be totally unacceptable decreased from 6% in March 2021 to just 3% in July 2021.

INTENTION TO BE VACCINATED

The percentage of participants who report an intention to be vaccinated has increased over time. In November 2020, 61% of participants reported that they would definitely have a COVID vaccine if it was offered to them. By July 2021, 86% reported that they were either already vaccinated or would definitely get vaccinated. Only 49% of participants with children under 18 reported that their child had already been vaccinated or that they would definitely be vaccinated. Twenty-one percent were unsure about their children getting the vaccine.

"I don't want my child to get COVID, but I feel that the risks of my child ...even if she got COVID, the risk of serious illness is not as high enough for me to worry that much."

Vaccination intentions of participants and their children (if applicable)



Would you have a COVID vaccine?

Would you get the vaccine for your children (if available)?

Prior to June 2021, participants aged 35-44 were consistently least willing to receive a COVID-19 vaccination, but this has changed in the last two months. For example, in November 2020 39% of participants aged 35-44 reported that they would 'definitely' get a vaccine compared to 63% overall, however, in July 2021, the percentage of participants aged 35-44 years old reporting that they would definitely be vaccinated or were already vaccinated was slightly higher than the average of all ages (87% and 86% respectively). For both June and July 2021 71% of participants aged 18-24 reported either definitely intending to be vaccinated or already being vaccinated. Participants aged 65+ were the most willing to be vaccinated, with 94% reporting they would 'definitely' be vaccinated or were already vaccinated or were already vaccinated or were already vaccinated in July 2021.

Participants with children were less likely to report that they would 'definitely' be vaccinated although overall levels were high. In July 2021, 88% of people without children reported definitely intending to be vaccinated or being already vaccinated compared to 81% of people with children. There were no meaningful differences by gender to report in July 2021.

In July 2021 95% of healthcare workers reported either being already vaccinated or that they would definitely get vaccinated. This compares to 84% of participants who are not healthcare workers. This reflects a dramatic shift in intentions to be vaccinated. In November 2020 just 40% of healthcare workers reported definitely wanting to be vaccinated compared to 65% of non-healthcare workers.

A few qualitative interview participants stated that they wanted to receive the vaccine but have been unable due to eligibility restrictions, such as age or visa status (e.g. international students).

"I remember at the start of it, my doctor was like, "Oh, you we might be getting it. Did you want it?" I was like, "Yeah, definitely." And then suddenly, it was, "You can't have it. You're the wrong age and the wrong level"

MOTIVATING FACTORS

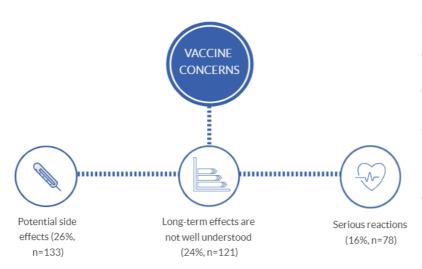
"...It's more doing it for the greater good for herd immunity more so than for myself." For some qualitative interview participants, the prospect of being able to travel overseas was an incentive to receive the vaccine, but for others the idea that international travel won't be an option for at least many months was a disincentive to receive the vaccine. Others spoke about the desire to protect others or contribute to herd immunity as a motivating factor, while for some the presence of community cases or outbreaks in their local area heightened their risk perception.

In addition, participants of the Community Engagement Group also suggested using the following strategies to nudge people to get vaccinated:

- Reminders from GPs/specialists as part of their regular consultations
- Mobile vaccination units: participants felt mobile vaccination units in local areas made it easier for people to get vaccinated, and also provided a visible reminder of the need for vaccination. They can also have trusted community leaders in attendance. Targeting workplaces (e.g. supermarket workers) with mobile vaccination units was also suggested.
- Work cultures supportive of vaccination: the representative of healthcare workers stated there is an expectation that newly employed clinicians will have up-to-date vaccinations.
- Word of mouth: from people who have had the vaccine
- Monetary incentives

CONCERNS

In July 2021, the 68 people who did not indicate that they would 'Definitely' get the vaccine (probably yes, probably no, unsure, definitely not) were most likely to be concerned about safety (57%) and 25% were concerned about blood clots. A further 19% were concerned vaccines would not work well enough to be worth having and 10% were concerned that they would be sicker if they were to then contract COVID-19. There were low levels of concern about not wanting to have more than one dose, the cost of the vaccine or whether one could contract COVID from the vaccine.

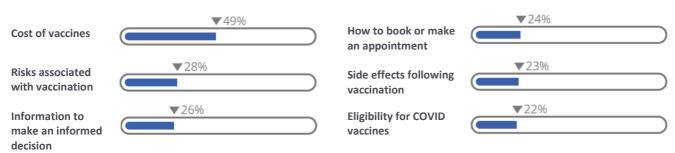


Overall, 52% (n=262) of participants (including those who would definitely get vaccinated or were already vaccinated) had no concerns about the COVID-19 vaccines. The most common concerns participants had related to potential side effects (26%), the long-term effects being not well understood (24%) and serious reactions (16%). This does not appear to have translated into significant levels of vaccine hesitancy amongst our study participants overall.

AVAILABILITY OF INFORMATION

Participants were asked whether there was enough information about the COVID-19 vaccines, including general information as well as information about potential risks and side effects. Participants were also asked about the availability of information relating to the vaccination rollout. Forty-nine percent of participants strongly agreed that there was adequate information about the cost of the COVID-19 vaccines, but only 22% strongly agreed that there was adequate information about who is eligible to receive a COVID-19 vaccine.

Percentage of participants who strongly agreed that there was adequate information on...



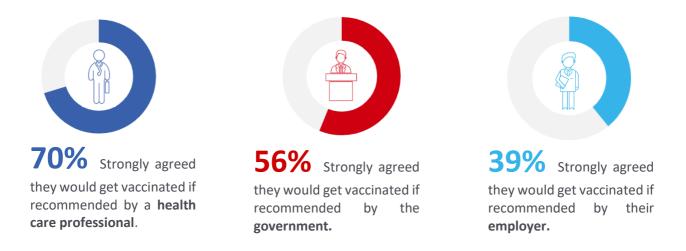
Qualitative interview participants spoke about the AstraZeneca vaccine and the lack of good information available on the risks and benefits. One participant asked, "how does this vaccine know that I'm 53 and not 49?" highlighting shortcomings in the ways in which risk and age profiles are being described and being comprehended and understood.

Community Engagement Participants noted some recent improvements to vaccine information, including the greater availability of easier to understand information. More written information and information sessions were also reported as being available in community languages. Participants noted more targeted vaccination advertising was occurring on social media as well as for specific groups (e.g. temporary or student visa holders). One participant also found the Premier's press conferences a reliable source of information.

Generally though, participants perceived that vaccine information and communication from government sources was confusing and inconsistent. People also perceived the government was too slow in pushing back against misinformation at the start of the vaccination campaign. Participants noted that constant changes to eligibility, resulting in 'walk-ins' being turned away at vaccination hubs, as particularly confusing. Inconsistent messaging from GPs was also reported about young people's eligibility for AstraZeneca. Similarly, there was also confusion about newly eligible groups for vaccination, such as children with underlying medical conditions. Participants were unsure which underlying medical conditions are eligible, how they book and whether they need a GP referral.

TRUSTED SOURCES FOR VACCINE ADVICE

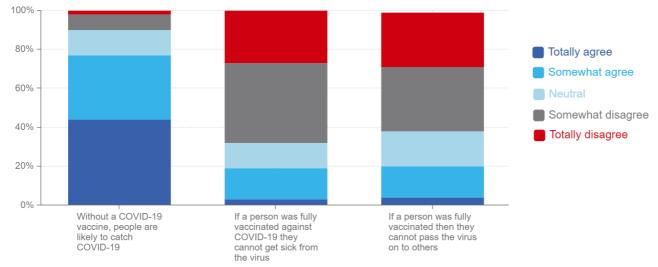
In July 2021 70% of participants strongly agreed that they would get vaccinated if recommended by a healthcare professional. This compared to 56% if recommended by the government and 39% if recommended by their employer.



Participants of the qualitative interviews referred to having trust and confidence in health experts and preferring to turn to them for information about the vaccine. Participants referred to scientists, healthcare workers, public health professionals and health experts as trusted people to listen to. However, participants of the Community Engagement Group noted that conflicting messages and inconsistency undermined confidence in the government. Use of the army for the vaccine roll-out was perceived to undermine confidence in health officials.

UNDERSTANDING

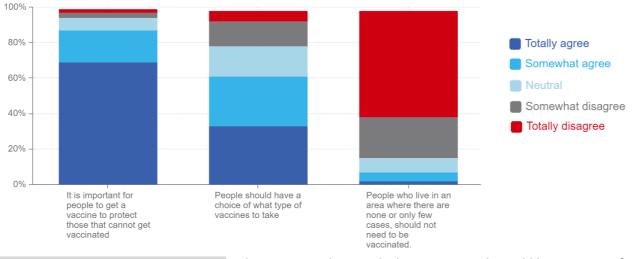
There was a high level of understanding that people require two jabs to be fully vaccinated against COVID-19 (90% strongly agreed). Similarly, 84% strongly agreed that as many people as possible should be vaccinated. There were mixed levels of understanding that people can catch COVID, get sick from the virus and pass the virus on even once they had been vaccinated.



Participants of the Community Engagement Group noted that there was an ongoing need to provide greater clarity about the impact of the vaccination (e.g. If you have the vaccine, can you still catch COVID? Can you still spread it? Is the only reason to have a vaccine to stop you getting really sick?).

BELIEFS

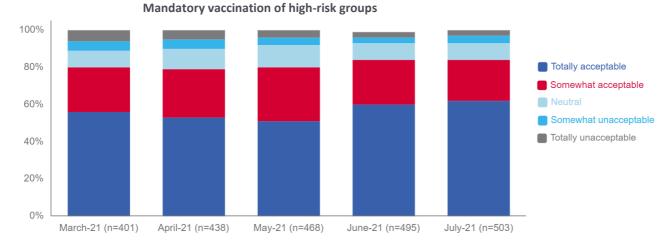
Participants strongly believed that it is important to be vaccinated to protect those who cannot be vaccinated (69%). Sixty percent of participants strongly disagreed that people living in an area with no or few cases should not need to be vaccinated. One third (33%) of participants strongly agreed that people should have a choice of which vaccine to take; only 6% strongly disagreed that people should have a choice. Twenty-five percent of people aged 65+ strongly agreed that people should have a choice, compared to 38% of people aged 18-25 years old.



"...so we have got to weigh up the potential for problems and so therefore we have definitely got our hands up, we will definitely have the vaccination, but not today...we are throwing balls up in the air and not knowing which one to catch." The option to choose which vaccine people could have was reinforced by the qualitative interview participants. For some this preference is based on early data about the efficacy of the Pfizer vaccine compared to the AstraZeneca. For others the risks of potential complications were influencing their decision. For some, this meant they were opting to wait until their vaccine of choice is made available to them.

SUPPORT FOR MANDATORY VACCINATION

The acceptability of mandatory vaccination of high-risk groups has increased over time. In March 2021, 56% of participants considered mandatory vaccination of high-risk groups to be totally acceptable and this had increased to 62% by July 2021. Those who consider mandatory vaccination to be totally unacceptable decreased from 6% in March 2021 to just 3% in July 2021.



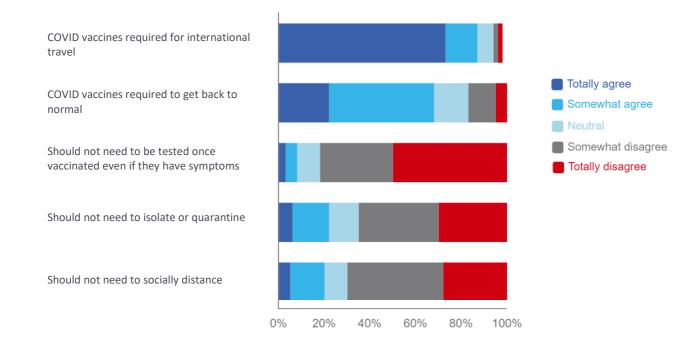
Participants of the Community Engagement Group noted that discussions of mandatory vaccination were premature and many workplaces were ill-equipped to encourage their employees to get vaccinated, let alone

mandate it. Members of the Community Engagement Group provided their views on mandatory vaccination, and how they could affect the communities they represent:

- Healthcare worker representative: vaccination is often part of the culture of being a health care practitioner (e.g. flu vaccination etc). However, even in the healthcare environment, there may be staff who are less receptive. Thus messaging still needs to be tailored to a worker's individual role and having a choice of vaccine may increase compliance.
- International student representative: the availability of a translator/bi-cultural worker for those who do not have English as a first language would assist the process of consent and vaccination if mandatory vaccinations were required.
- Young people and people in crisis accommodation representative: there is likely to be some resistance from these communities (including protests) so they retain some control over their decision-making. People in the community can link COVID-related topics to deprivation of free will. "This won't change unless the government proves they are trustworthy and looking out for us underdogs."
- **People who have had COVID representative:** some in the lived experience community may be less resistant to mandatory vaccination because "nothing in the vaccine is going to be worse than COVID" but others are concerned the vaccine will re-inflame their symptoms.
- Older people representative: older people may be more likely to respond positively to mandatory vaccination, given they are at high risk of dying from the virus. Older people have also witnessed previous pandemics (e.g. polio) and the benefits of vaccination.

EXPECTATIONS AFTER VACCINATION

Participants were asked about their expectations after vaccination and what is needed to return to 'normal' life. Seventy-three percent of participants totally agreed that COVID-19 vaccines should be required for international travel to and from Australia, while 22% totally agreed and 46% somewhat agreed that vaccines are required to get back to normal life. Half of participants (50%) strongly disagreed that a person should not need to get tested for COVID-19 once they were vaccinated, even if they have symptoms.



RECOMMENDATIONS



Future COVID communication strategies should counter confusion and misinformation to promote vaccination uptake.

To counter confusion and misinformation, participants of the Community Engagement Group suggested that the following areas or messages be considered as a focus for future COVID communication strategies:

- Benefits of being vaccinated e.g. being less likely to end up in intensive care or on a ventilator
- Vaccinating to protect people that you love: "What's going to happen to your family if you get sick?" and showing the impact of COVID on families of people who have passed away
- Risk of severe COVID-19 amongst young, fit people who have become very sick
- Campaigns similar to the US, featuring COVID positive patients who previously didn't believe in the virus
- Healthcare workers saying "this is the impact of your behaviour. We can't cope". Also, the impacts on health workers of wearing personal protective equipment (PPE) for 12 hours each day
- Emphasise research for the current vaccine was originally developed in response to the SARS outbreak

Participants also noted that it will be vital to get the messaging right for children and once the Moderna vaccine has been made available.



Suggestions for reporting as part of daily/regular updates

Participants of the Community Engagement Group suggested that it would be helpful to provide more information from "behind-the-scenes" e.g. how many people contact tracers need to contact because of one party. This could be presented using visual infographics to emphasise the gravity of just one case in the community. Participants also felt that mentioning a person's co-morbidities or vaccination status when reporting their death can devalue their death or apportion blame to them.

COVID-19 WORK AND HEALTH STUDY

ABOUT THE STUDY

COVID-19 infection in workplaces has been a key feature of the pandemic as seen in recurring public health messaging of COVID-19 exposure sites. The Australian vaccine rollout prioritised vaccinating individuals based partly on their occupation in high-risk settings (e.g. healthcare workers). As vaccination efforts continue, coinciding with viral outbreaks, the relationship between employers and the vaccination of their workers may change over time. As part of the national COVID-19 Work and Health Study [1], we surveyed a group of 537 working-age Australians between 14 April and 27 May 2021 regarding vaccination of the workforce and the responsibilities of employers [2].

KEY FINDINGS

Our findings demonstrate:

- Large gaps in employer vaccination policy. Fewer than one out of every four workers surveyed reported that their employer has communicated a vaccination policy.
- **Strong support of mandatory vaccination**. The majority of workers support mandatory vaccination within some occupational contexts, where support was greater for high-risk groups.
- Support for sharing vaccination status. Almost two out of every three workers believed that employers should be able to ask for evidence of employees' COVID-19 vaccination and keep records of vaccination status.
- Mixed views on consequences for unvaccinated workers. Stopping unvaccinated employees or even members of the public from entering workplaces was supported by around three out of ten, and opposed by four out of ten individuals.

Take away message:

Workers strongly support employers playing an important role in supporting the vaccination of the workforce. In order to keep workers and workplaces safe. COVID-19 vaccine hesitancy remains a barrier to some workers (for either medical or personal reasons), which should be accounted for in workplace policies on vaccination.

References:

[1] Collie A, Griffiths D, Sheehan L et al. COVID-19 Work and Health Study. World Pandemic Research Network. WPRN-543452,

13/07/2021. https://wprn.org/item/543452

[2] Griffiths D & Collie A. Workers' views about COVID-19 vaccination and work. Monash University. Report. 2021.

https://doi.org/10.26180/14870058

CARE STUDY

ABOUT THE STUDY

The COVID-19 Attitudes, Resilience, and Epidemiology (CARE) study was established to gain real-time understanding of how people in Australia were thinking, feeling, and behaving in relation to the COVID-19 pandemic and the associated response measures. The CARE survey was administered to 1,006 adult participants from the 13th to the 19th of July 2021 and sought to capture public sentiment around COVID-19 vaccines and cooperation with COVID-19 transmission reduction measures within Victoria. Sampling of the population was proportional to the demographics of the Victorian adult population to ensure that the respondents were representative. Results have also been weighted by age, gender, income and location.

KEY FINDINGS

COVID-19 testing experience

- Symptoms: 465 (46.2%) of all respondents reported having at least one symptom consistent with COVID-19 during the previous 4 weeks
- Testing: Of the participants with symptoms 97 (20.9%) got a COVID-19 test (6 preferred not to respond to questions about testing).
 - Reasons for not getting tested in those who reported symptoms but did not get tested: Many participants (39.4%) thought that their symptoms were not related to COVID-19
 - Respondents provided detailed reasons for choosing not to get tested, informed by their knowledge of their body and symptoms
- Test timing: Of the participants who got tested, most did so within a day of symptom onset (71.5%)
- Getting tested in specific scenarios:
 - Participants indicated that they are likely to seek a COVID-19 test if they visited an exposure site, regardless of symptom experience (79.0% when symptomatic; 75.9% with no symptoms)

COVID-19 vaccination

- Proportion of participants vaccinated:
 - 40.3% reported having already received at least one dose of a COVID-19 vaccine
- Likelihood of getting vaccinated:
 - Most unvaccinated (384/601; 63.9%) respondents reported that they were definitely or probably going to get vaccinated.
- Perceived knowledge sufficiency for vaccination:
 - 57.8% of participants agreed that they had enough information about COVID-19 vaccines to decide whether to get vaccinated
 - o 60.0% felt they had enough information about making a vaccination appointment
- Concerns surrounding COVID-19 vaccines:
 - Most respondents (63.3%) reported having at least one concern around COVID-19 vaccines
- Sources of information:
 - The majority (63.4%) reported getting their information from news media, although this was lower in the 18 to 34 age group (50.1%)

Other public health measures & the return to 'normal'

- Reported cooperation with public health measures:
 - Many always or mostly wore a face mask (81.3%) and practiced hand hygiene (74.8%)
- Change in cooperation with public health measures after vaccination:
 - In both vaccinated and unvaccinated subgroups, most participants reported that their cooperation with public health measures would not change (73.6%)

For the full report please see Appendix 1

COPING WITH COVID-19 STUDY

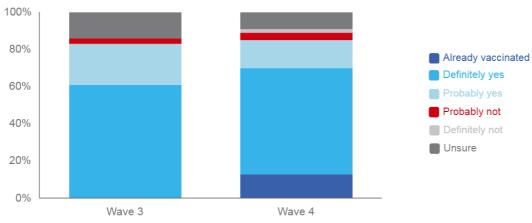
ABOUT THE STUDY

Coping with COVID-19 is a national mixed methods study of young people aged 15-29 years old, conducted by the Burnet Institute and funded by VicHealth. This study aims to assess the impact of the coronavirus pandemic on social connection, loneliness, health behaviours, mental health, and wellbeing of young people in Australian. This study commenced in March 2020, with 2000 young people participating in an online survey between April and July 2020.

The data presented below come from the third and fourth waves of follow up: Wave 3: 4th quarter of 2020 (n=474) Wave 4: 2nd quarter of 2021 (n=380)

INTENTION TO BE VACCINATED

The majority of participants intended to get vaccinated*, and this did not vary between timepoints. In 2020, 83% intended to get vaccinated and 10% were unsure. In 2021, 85% had already been vaccinated or intended to get vaccinated and 9% were unsure.



* Intention to vaccinate includes participants who reported that they would definitely or probably get vaccinated.

REASONS FOR NOT GETTING VACCINATED

Among those who did not definitely intend to get the vaccine, the most common reason for not intending to be vaccinated was safety concerns (75%). Other common reasons were that the vaccine will not work well enough to be worthwhile (21%) and that COVID-19 is not serious for young people (9%). Some participants noted they were concerned about the cost of the vaccine, noted

"Covid will most likely be a nonexistent or non-serious problem in Australia by the time the vaccine is available to me." individual safety concerns such as pregnancy or previous vaccine injuries, or stated that in the context of low availability they felt others needed the vaccine more. "Standard practice for vaccines usually require 5 years of testing before allowing public use. This vaccine has come quite quickly, I won't refrain from using it in the new future but will wait to see if any common side effects come from it."

A more detailed report on the Coping with Covid-19 study and the data collected at timepoint 1 can be found at https://doi.org/10.37309/2020.MW1001

TIGER C19

Timely Integration of User Generated Responses about C19

ABOUT THE STUDY

The TIGER C19 study is an ongoing collaboration between the University of Melbourne and Burnet Institute that combines big data analytics of social media postings with qualitative research methods. [1] Using a sophisticated data analytics tool, TIGER C19 extracts posts containing selected key words and themes from two social media platforms – Reddit and Twitter – that are then analysed thematically. The data identifies themes of current interest for COVID-19 in Melbourne and Victoria, that can potentially be explored with further research. Whilst the focus is on Melbourne and Victoria, the emerging themes have broader resonance and application to other jurisdictions in Australia and overseas.

KEY THEMES

The TIGER C19 study investigated five different key words/themes: appointment, hesitancy/hesitant, vaccine/ vaccination, lockdown, and quarantine between 16 July -27 July 2021. The total number of hits/posts retrieved was 78,763. We have included the key themes relating to vaccination below.

- Access to vaccines
 - o difficulty getting vaccine available/none available
 - want to get vaccinated but ineligible
 - o difficulties accessing Pfizer vaccination
- Attitudes towards vaccination
 - vaccine hesitancy is selfish /criticism of those who are hesitant
 - o young people are being criticised for not taking AstraZeneca
 - o Older Australians should get AstraZeneca/ Older Australians want Pfizer
 - o people don't want AstraZeneca
 - o vaccine choice will increase vaccinations
 - o lockdowns are reducing vaccine hesitancy
 - o concerns that vaccine is unsafe so will not get vaccinated
 - o against mandatory vaccination/vaccination passports
- Government, health and media messaging about vaccinations
 - mixed messaging has created vaccine hesitancy in the community
 - scare tactic advertisement is unfair to those who cannot access vaccination/may increase hesitancy
 - o some media outlets are increasing vaccine hesitancy in the community
 - o mixed messages about AstraZeneca / need clearer public health messaging
 - o ATAGI much accept some responsibility for AstraZeneca hesitancy
 - ATAGI need to give stronger advice about increasing AstraZeneca uptake in NSW
- Sharing information and encouragement
 - o sharing positive vaccination stories/encouraging others to get vaccinated
 - o sharing information about where to get vaccinated and eligibility
 - vaccination/lockdowns essential to control COVID-19 outbreaks
 - o discussing strategies to address vaccine hesitancy in friends/family
- Highlighting those who should get vaccinated: teachers, all essential workers, healthcare workers, aged care workers and pregnant people

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