

COVID-19: Unemployment and compliance

What effect will being made unemployed have on an individual and of their response to COVID-19?

The sudden and unexpected loss of a job will mean immediate, significant financial strain for millions of Australians. Crucially, when this is combined with the loss of a sense of belonging, purpose and identity, another potential consequence of being made unemployed is those recently unemployed could also be less motivated to comply with COVID-19 related restrictions or even see the value in these new activities.

These effects can be expected to be more marked in certain pockets of our multicultural Australian society where 'employment' is more tied to self-definition and social standing.

What could responses to COVID-19 restrictions look like amongst recently unemployed?

- Health will not be front of mind: People will start to underestimate the health risks
 to themselves and others as they prioritise their employment over COVID related
 activities (e.g. self-isolation).
- Skepticism of government: People may start to question government decisions directly impacting their job opportunities as people start to believe the rules and restrictions are gross overreactions or fear mongering.
- Social unrest: Individuals in this cohort may become angry, increasingly less
 compliant and critical of decisions which are seen to be a direct cause job losses over
 time. These feelings may become compounded via social media.
- Rationalisation of non-compliant behaviours: People might be more likely to rationalise behaviors which directly flout rules like social isolation to feel more comfortable with their decision making processes. These could present in 4 categories:
 - Competing values: Something else is simply more important than complying
 with directives like waiting in line at Centrelink (e.g. being able to provide for
 family is simply more important than social distancing or self-isolating).
 - Displacing responsibility: Thinking for example: "It's not my problem." "I didn't have a choice." "I was doing what I was told." "Or, how can you expect me to know what to do?"
 - Underplaying consequences and optimism bias: Thinking for example: "Most people get only mild symptoms anyway." "I probably won't catch it. It's only old people who die, they were going to die soon anyway."
 - Making social comparisons: thinking for example: "other people are doing worse things. I'm only standing in line at Centrelink, I'm not throwing a party!"



Grief, helplessness, depression and suicide (for extremely vulnerable cohorts):
 Research suggests disruptions to people's sense of identity, as a result of a loss of a job can be akin to an even more significant loss like the death of a loved one. People who find themselves in this state may be unable to engage fully with COVID-19 rules and restrictions and will need further government and community support to do so.

What can the government do?

Government messaging and interventions need to focus on helping people transition through the change more effectively. The focus should be helping people counteracting negative feelings associated with loss of work identity, and also helping people in difficult circumstances more easily comply with health directives.

- Legitimise people's worry and concerns in messaging to the public.
- Emphasise the importance of social connections and group belonging during this
 period of time. A sense of shared belonging will be important for resilience needed
 to overcome this period in the long term:
 - Provide an initial period of collective mourning. This will help create a sense of shared group belonging among those who have experienced similar losses.
 - Encourage people to seek help from others and talk openly about their concerns. Encourage people to try to spend some time making sense of what has happened. A predictor of whether people are able to overcome loss is highly correlated with the type of narrative they tell about their experience – redemptive narratives about overcoming a difficulty is positively correlated with good wellbeing outcomes.
- Emphasise temporary timeframe: Make clear this difficulty is only for the shortterm, things will get better, provide examples of other disasters and pandemics to show how people have overcome similar problems. Link it to things people have done to give people in this situation something to do so they don't feel helpless.
- Mobilise mental health assistance and encourage those who are most at risk to seek assistance now.

References

- Anthony Papa & Nicole Lancaster (2016) Identity continuity and loss after death, divorce, and job loss, Self and Identity, 15:1, 47-61, DOI: 10.1080/15298868.2015.1079551
- Conroy, A.S. & O'Leary-Kelly, A. (2014). Letting go and moving on: Work related identity loss and recovery. Academy of Management Review, Vol. 39, No. 1, 67–87. http://dx.doi.org/10.5465/amr.2011.0396
- McAdams, D. P., Reynolds, J., Lewis, M., Patten, A. H., & Bowman, P. J. (2001). When bad things turn good and good things turn bad: Sequences of redemption and contamination in life narrative and their relation to psychosocial adaptation in midlife adults and in students. *Personality and Social Psychology Bulletin*, 27(4), 474–485. https://doi.org/10.1177/0146167201274008





COVID-19: Essential workers

Issue

Essential workers are being placed at a higher risk of contracting COVID-19 due to a variety of external factors. This could result in heightened rates of mental health issues, feelings of unfairness and inconsistent behavioural norms among these cohorts, which could result in noncompliance with protective behaviours.

Why are we concerned?

When people feel like they are being treated unfairly at work (e.g., being asked to do something more risky than other people, not receiving adequate reward/compensation, not having procedures for having their say, or being subject to arbitrary decisions) they will feel angry and are more likely to display non-compliant behaviour. In this case, this potentially means lowering compliance with protective health measures.

There is unclear messaging on social distancing requirements for essential workers, such as health care workers, teachers, supermarket employees and public servants. As a result, this places essential workers at higher risks of exposure to COVID-19.

When you are trying to figure out how to "do the right thing", but it's hard to figure out what this is, and hard to do because of external reasons (maybe even official orders are to do something which *feels* wrong), this can potentially lead to a "moral injury", and lead to longer term risks of mental health issues.

What are the consequences?

Feelings of frustration, confusion, anger and psychological distress could be a consequence of these essential workers undertaking their duties. A recent study on the psychological effects of Chinese Healthcare workers exposed to COVID-19 reported significant levels of psychological distress.

Recommendations

Governments at all levels can cohesively nudge citizens to take advantage of new bulkbilling rules and book telephone and video consults with their GPs to reduce in-person appointments.

Workplaces need to develop new, protective, routines to ensure social distancing measures are adhered whilst still delivering essential services. In the first instance, this can be to hear worker's concerns, develop clear procedures for dealing with conflict/risk in the workplace,





and undertaking regular check-ins with staff to voice their concerns. Wherever possible, the expression of gratitude from management and the public for essential workers can assist with this positive behaviour.

References

Ford, E. W. (2019). Stress, burnout, and moral injury: the state of the healthcare workforce.

Lai, J., Ma, S., and Wang, Y. (2020). Factors Associated With Mental Health Outcomes Among Health Care Workers Exposed to Coronavirus Disease 2019. *JAMA Netw Open* : (3)3;2020e203976. doi:10.1001/jamanetworkopen.2020.3976

McGowan, M. (2020). 'I feel expendable': Australian teachers sound alarm about schools and coronavirus. *The Guardian*.

O'Mallon, F. (2020). Telehealth to open up to all Australians. Australian Associated Press.

Rollins, A. (2020). Australian Public Service Commission resists call to work from home. *The Canberra Times*.

Skarlicki, D. P., & Folger, R. (1997). Retaliation in the workplace: The roles of distributive, procedural, and interactional justice. *Journal of applied Psychology*, 82(3), 434.





COVID-19: Socially isolated groups

Issue

Several groups may be particularly socially isolated during the COVID-19 pandemic, and are therefore especially vulnerable. These include people with disability, the elderly, and those for whom home is not a safe place (including the homeless). These groups may have issues with compliance to social distancing rules for various reasons.

Why are we concerned?

For the **disabled and elderly**, many members of these groups are already considered vulnerable populations in the COVID-19 pandemic because they are at elevated risk of morbidity and death due to underlying health conditions. Further, we know **social isolation particularly among older adults is a serious public health concern** because of their heightened risk of cardiovascular, autoimmune, neurocognitive, and mental health problems. Social disconnection is known to place older adults at greater risk of depression and anxiety.

For those for whom **home is not a safe space** we consider, for example, groups where partner or parents are abusive will not be motivated to stay home, and those who are **homeless** may not be sure what they are supposed to do.

For these reasons and others, adherence to isolation strategies in these populations is likely to decrease over time.

People in these groups might be more likely to **rationalise** behaviors which directly flout rules (e.g. social isolation) so as to feel more comfortable with their decision making processes. For example, they could rationalise away responsibility ("I didn't have a choice / how can you expect me to know what to do?"). The elderly, in particular, might be facing a sense of **inevitability** – *when, not if,* which might also reduce social distancing in some cases.

Consequences of not doing addressing this directly related to COVID-19.

Wellbeing may be severely impacted for all of these cohorts. Both disability and homeless/shelter sectors may lose their support services, and this could drive a need to go out into the community out of necessity or desperation, reducing social distancing compliance.





What we can do now and practical solutions.

The Centre of Research Excellence in Disability and Health have brought together a number of key recommendations for this pandemic, including rapidly scaling up the health care sector's capacity to care for people with a disability, and rapidly increasing the capacity of the disability care workforce to respond to the pandemic and its consequences. The government must ensure disability services stay open otherwise the lives of people with disabilities are at risk.

For the elderly and disabled, online technologies could be harnessed to **provide social support networks and a sense of belonging**, although there might be disparities in access to or literacy in digital resources. Interventions could simply involve more frequent telephone contact.

For those for whom home is not a safe space, we need to find ways, for example, for ensuring refuges stay open and there is a **safe space for people to go** if home is not a safe place for them. The CDC has also provided guidance for homeless people during the pandemic, including using outreach teams to clearly communicate with this cohort, who might not be receiving government messages about behavior in a timely way.

References

- https://credh.org.au/news-events/covid-19-and-people-with-disabilities/
- https://www.cdc.gov/coronavirus/2019-ncov/community/homelessshelters/unsheltered-homelessness.html
- https://www.thelancet.com/journals/lanpub/article/PIIS2468-2667(20)30061-X/fulltext

Talking with your teenagers about getting vaccinated

Why this guide?

Some children may have questions and concerns about the COVID-19 vaccine. Many will look to their parents for guidance. The conversation can be difficult. This guide is intended to help.

How will this guide help?

It includes messages and tips to guide a discussion specific to the COVID-19 vaccine. It is not does provide guidance on explaining vaccines in general to children.

Keys to a productive conversation



Listen with empathy



Avoid outright telling them what to do



Understand what motivates them



Empower them to make it their own choice

Before you start the conversation

Re-educate yourself



It may seem obvious to you that getting the vaccine is the right thing to do, but children don't automatically have the same view. You should expect questions. It can help to answer these by talking about the reasons you chose to get vaccinated.



Take the pressure off

It doesn't have to all happen in one conversation. It's better to keep the conversation going than to rush it and lose their trust.



Be ready with resources

To help you with your discussions, take a look at these reputable resources on common questions about the COVID-19 vaccine.

To book your child in for a vaccine, or to find out about eligibility, visit your state or territory's website.

Australian Government Department of Health

[--] [QR code]

Step 1: Open the conversation

Start with an open question, for example "I've heard your age group is now eligible for the COVID-19 vaccine. What do you think about booking in a time to get it?

For some parents the conversation may be simple. They may only need a reminder they have had vaccines before and a quick summary of the reasons for getting it.

For some parents, the conversation may be more difficult. Turn over for more information. Page 1

The Conversation

When having a conversation about the COVID-19 vaccine, use these steps to guide you.



Step 2: Understand their perspective

If they appear hesitant but don't openly express their thoughts, it can be helpful to ask – 'if you scored your readiness on a scale of 0 to 10, what would it be?'

- To understand their motivations, ask 'why didn't you pick a lower number?'
- To understand their concerns, ask 'what things would have to change to make that number bigger?'

Be open-minded, listen to their concerns, validate their feelings and be straight when responding to their questions.

This will help them open up to you, and tell you their concerns.

Try asking more questions until you properly understand their views. Then, note things you could say or do to help them feel more ready.



Step 3: Share your experiences

Acknowledge and validate their questions. Share your experience of finding answers.

'I know what you mean. I was wondering about [question] before I got the vaccine and I found [answer]'

If you disagree, avoid telling them they are wrong. Just share your experiences to offer a different perspective.

Typical Questions

Example Answers

Indifference

'Why does it matter? I don't feel that Covid-19 is a risk for me'

- The more people who have the vaccine the more it helps protect other vulnerable people like [your grand parents].
- Some young people get very sick from COVID. This risk increases when we open society back up.
- High vaccination rates means life can get back to normal sooner. I want to [go camping this summer] and you wouldn't want to miss out on [seeing friends] would you?

Concern

'How safe is it? It was developed so fast' 'What if there are sideeffects?'

- ➤ The vaccines passed the usual safety checks all vaccines are required to have. It was very important, so many people across the world worked on it.
- ➤ Very few people have had side effects. Millions of people have died from COVID. The vaccine is now saving lives.



Step 4: Summarise and cover next steps

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- ☐ Highlight the things that seemed to motivate them the most.
- ☐ Suggest practical ideas to help them address concerns.
- ☐ Check if their readiness has changed and or book in for a vaccine.

It's all about helping them find their reason why.

Make the summary about their motives and concerns.



A conversation guide for talking with people who are vaccine hesitant

August 2021



What drives vaccine hesitancy?



The Health Belief Model helps explain vaccine willingness and hesitancy



People's decision to get vaccinated is complex and affected by a variety of factors, described by the Health Belief Model.

Peoples perceptions are dynamic and assessment of the risks and rewards of vaccination can be **influenced by discussions** with family, friends and peers.

Understanding which of the factors in the health belief model is driving hesitancy is **key to tailoring a message and having conversations** to motivate an individual to vaccinate.

The **Health Belief Model** outlines risks and benefits people 'weigh up' to decide whether to get the COVID-19 vaccine.¹



Perceived susceptibility to, and severity of COVID-19

If perceived health risks of COVID-19 are low, people won't take steps to protect themselves.



Perceived benefits & risks of the vaccine

If people believe the vaccine will protect them from COVID-19, they are more likely to vaccinate. Conversely, if they believe the vaccine could be harmful, they are less likely to vaccinate.



Cues to action

Conversations, public health information, visible outbreaks of COVID-19 or knowing someone who has COVID-19 may encourage action.



Perceived and actual barriers

If people think it is difficult to get the vaccine (e.g. hard to book) they will be less willing. Those who do attempt to get the vaccine, but find the process challenging (e.g. long wait times), may be discouraged and delay or abandon the process altogether.

There are different types of hesitancy



Willing but complacent

For this group, there are actual or perceived barriers to getting vaccinated. They would get the vaccine if they perceived an urgent need to do so, and are opting to 'wait and see' before making a decision.



Undecided

(About 1 in 10 Australian adults¹)

This group finds it difficult to weigh up the risks and benefits of getting the vaccination compared to the risks of COVID-19.



Not willing

(About 1 in 10 Australian adults¹)

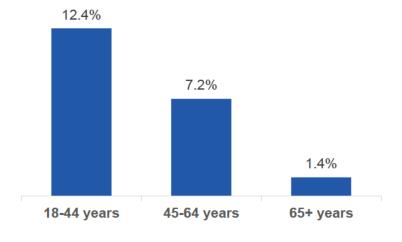
This group perceives significant risks associated with the vaccine, and/or perceives too little risk of COVID-19 to elicit action.

Conversations could help bring forward vaccinations for people who are complacent, but are likely to have the **biggest impact on those who are undecided** and still weighing up the pros and cons of vaccination.

Motivating complacent individuals will be critical in getting to Phase B (70%) and Phase C (80%). Getting the undecided group across the line could help us reach 90% vaccination coverage.

A higher proportion of young people are undecided - a conversation guide should target this group. Sub-groups with higher hesitancy levels (CALD, lower socio-economic) should also be a priority. Guides could be tailored for these groups.

Proportion undecided¹



^{1.} Melbourne Institute (25 August 2021) Vaccine Hesitancy Tracker. Accessed 25 August 2021.

^{2.} Australian Bureau of Statistics (2021). Household Impacts of COVID-19 Survey, June 2021.

Who can influence vaccine hesitancy?



Family, friend, peer conversations can impact vaccine hesitancy

Family, friends, peers are well placed to impact vaccine hesitancy

- The effect of the messenger can be as important as the message.1
- People who are hesitant will likely listen to and be influenced by family, friends and others they identify with.²
- Family and friends are in a great position to be a positive and encouraging influence to improve vaccine take up.
- People may be more willing to share their concerns and fears with others they know and trust.³

There are guides for clinicians but Australia lacks one for peers





And they even have some advantages over others

- Recent research has found that taking an approach of empathy and listening can be more impactful on vaccine hesitancy than statements that focus on facts, figures and correcting misinformation. Presenting data and facts can risk dismissing the emotions of the person you are talking with.⁴
- Family and friends may find it easier to find common ground and connect with their values and fears of those they know.
- Family and friends are able to provide personalised reasons⁵ for getting vaccinated, for instance, tailoring the concept of 'getting back to normal' to those things which matter most to the person they are speaking with.

But support is needed

- Many people are not comfortable nor equipped to have these discussions.
- There are many resources available for health practitioners to conduct guided conversations, less so for those casual conversations between family and friends.
- A conversation guide can help and is needed to:
 - help people think about their approach to talking with someone who is hesitant;
 - suggest specific messages that could be used to address their hesitancy;
 - provide resources they can use to assist them, including who they could refer someone to.



How to have conversations about getting vaccinated?



What a conversation guide could look like

The guide would align with other communications including:

- Commonwealth Dept. Health COVID-19 communications
- ATAGI advice

- Messaging to address specific concerns (particularly around sideeffects) and reduce the perceived risk of vaccination.
- Messaging to focus on the benefits of vaccination (including getting back to normal) and increase the perceived rewards of vaccination.

Part 1

The approach

General tips for any conversation



Specific messages



A walk through of a productive conversation including message which can be used

- Highlighting the power of family and friends in influencing vaccine decisions
- Providing keys to productive conversation:
 - · Actively listen,
 - Find common group
 - · Be open minded,
 - · Empathise with their concerns
- · What to expect
- Knowing your limits Self reflecting and taking the pressure off

For example

- Commonwealth Dept. Health COVID-19 vaccine – easy read resources
- State and Territory official COVID-19 webpages
- · Information about vaccine safety

Part 3

Resources and referrals



Reputable government websites

Thank you

General enquiries beta@pmc.gov.au Media enquiries media@pmc.gov.au Find out more pmc.gov.au/beta

Behavioural Economics Team of the Australian Government

A guide for conversations about COVID-19 vaccine hesitancy

Talking with your friends and family about getting vaccinated

Should I be the one to talk about vaccination?

People who are hesitant about getting vaccinated are likely to listen to their friends and family. The conversations you have with your loved ones can be powerful in encouraging uptake of vaccination.

How will this guide help?

Conversations about vaccination can be complex and emotional. This guide will help you approach the conversation carefully. It includes messages and tips to guide your discussion.

Keys to a productive conversation



Listen and ask questions



Try to find common ground



Empathise with their concerns



Be curious and open minded

What kind of things should I say?

You know what your friends and family care about. Focusing on what they personally value will be most effective.

Loved ones 'Your loved ones need you. Get the Covid-19 vaccine to make sure you can be there for them.' Authority
'Doctors and nurses have decided to get the Covid-19 vaccine. Now, they

recommend you do too.'

Getting back to normal 'Now we have the chance to return to the people and places we love. Let's get our lives back again.'

Before you start the conversation

Having a conversation about vaccination can be tough. Before starting to talk to someone it's a good idea to:



Self-reflect

Ensure you feel able to have the conversation and in the right state of mind. There might be challenging moments, so it's important to stay calm and open.



Take the pressure off

You are unlikely to change someone's mind in one conversation. Keeping the conversation going is still a win.

What should I expect?

Vaccination is a complex and emotional topic for some people. Some people might not know much about the vaccines, some might not want to talk about it, and some might get defensive. If the conversation gets overwhelming, you should stop.

Page 1

The Conversation

When having a conversation about vaccines, use these prompts to guide you. Personalise your conversation to reflect what motivates and concerns the person you are talking to.



Understand their concerns

The best way to start a conversation is with curiosity about why they are hesitant to get vaccinated. Be open minded, listen to their concerns, validate their feelings and try to find common ground.

This approach will help them engage with you more and will allow you to discuss their specific concerns.

'I know that we have different opinions about the vaccine, but I'm still interested in hearing about your thought process.'



Talk about 'Why'

Tell the person why you want to talk to them about vaccination. You could tell them that you want to look after their health, to get life back to normal as soon as possible, or to check they know all the risks and benefits.



Share your experiences

Your friend or family member is more likely to relate to and value your experiences than those of someone they don't know. Share your experience of deciding to get vaccinated as well as the experiences of other people the person relates to.

'I was concerned about side effects, but when I weighed it all up, it was the best decision for me.'

'Did you see our friend also got the vaccine?'



Talk about the benefits

Deciding to get vaccinated is about weighing up the risk and benefits. Consider what the person values and link that back to the benefits of vaccination. The more personalised the benefit is, the more effective it will be. Some possible benefits include:

Getting back to normal Personal health

'I got vaccinated because I am sick of my a great runner, are plans getting cancelled. I'm so excited to be able to attend weddings again.'

'I know you're such you sure you're willing to risk that by getting COVID?'

Seeing people you love

'If you are not vaccinated it's going to be really hard for me to bring my kids over to see you, and they really miss you!'

Feel like you're fighting back 'COVID makes me feel so powerless. It felt so good to

actually do something about it.'



Keep the door open for future conversations

- Don't aim to change someone's mind in one conversation.
- Try to end the conversation in a way that keeps the door open for future conversations.

'I've learnt a lot from our chat, let's talk about it another time.'

The Pushbacks

You will probably find that the person has concerns and will push back on your encouragement to get a vaccination. Try to understand what their concerns are so you can respond thoughtfully. Consider some common pushbacks below.

'COVID-19 is not a risk for me'

If someone feels like COVID-19 is not a risk to them you can talk to them about:

- The specific benefits they will get from going back to normal.
- The vulnerable people in their lives who would be protected if they got vaccinated.
- The long-term effects of COVID-19, such as breathing problems.

'You love to go to the coast for the summer, but you might not be able to do that if you're not vaccinated.'

'I am worried about side effects'

If someone is concerned about the side effects of the vaccine, you can say that:

'The side effects can vary between people. But most often it's just your immune system responding, which is a good thing. I felt a little sick for the rest day, but after that I was fine!'

- The benefits of getting vaccinated, such as a lower likelihood of catching COVID-19 and less severe symptoms.
- thing. I felt a little sick for the rest The safety of the vaccine and how it is being used by millions of people worldwide.

'How safe is this vaccine? It was developed so fast'

If someone is concerned about the safety of the vaccine, you can talk to them about:

- The vaccines undertook the usual safety checks all vaccines are required to have.
- · Similar vaccines have been used frequently in the past.
- The vaccine was fast-tracked because it was so important.

'I know you are concerned about the vaccine, but 2 billion people have already used it and it has been proven to be safe.'

'It just seems too complicated'

If someone is worried about the process of getting vaccinated, or complacent in booking in, you can say that:

'Yes it would be difficult to find someone to look after your kids while you get vaccinated, let me help you figure that out.'

- The simple sign up process.
- You can even offer to help the with the process.

Resources

Feel like the conversation is getting tough?

If you feel like you cannot maintain empathy, or the other person is getting upset or stressed, you should pause or end the conversation. To calm a conversation you could:

- Talk about COVID-19 more broadly or the frustrations of living in these pandemic times.
- Acknowledge the emotions and common ground.
- 'I find the COVID-19 situation quite stressful and am finding this conversation difficult, let's talk about something else for now.'

Be ready with resources

To help you with your discussions, take a look at these reputable resources about the COVID-19 vaccine and talking with others.

- Australian Government's Department of Health
- Australian Government's Department of Health We answer your top 3 questions
- Australian Government's Department of Health Vaccine Safety
- COVID-19 vaccination communication materials Aboriginal and Torres Strait Islander peoples

To book in for a vaccine, or determine your eligibility, visit your state or territory's website.

- New South Wales
- Victoria
- Queensland
- South Australia
- Western Australia
- Tasmania
- Northern Territory
- Australian Capital Territory

Get in touch with more services

Remember to look after your own mental health and make use of the services available.

- <u>Lifeline</u> 13 11 14
- Beyond Blue 1300 22 46 36
- MensLine Australia | 1300 78 99 78 | Web Chat
- Kids Helpline | 1800 55 1800





How to speak to your children about COVID-19 vaccines

Last updated: 8 September 2021

Decisions regarding COVID-19 vaccines have been, and continue to be, based on the expert medical advice of the Australian Technical Advisory Group on Immunisation (ATAGI).

ATAGI supports COVID-19 vaccination in all people from 12 years of age.

It's natural for your child to be curious and to have lots of questions about COVID-19 vaccinations. Here are some tips for speaking to your children and teenagers before and after they receive a vaccine.

Stay up to date with the latest information and advice

It's important to stay up to date with the latest medical advice available on Health.gov.au.

You can also discuss any questions you or your child have about COVID-19 vaccination with your immunisation provider and/or your GP before your child receives the vaccine.

Start a conversation and listen to your child's response

Start a conversation with your child and **invite them to share** what they have heard about COVID-19 vaccines. It's important to **listen to their responses** and acknowledge their concerns.

You might want to start with:

- I've heard your age group is now eligible for the COVID-19 vaccine. What do you think about booking in a time to get it?
- Tell me, what do you know so far about the COVID-19 vaccine?
- On a scale of 0 to 10, how ready are you to get vaccinated?

Keep asking questions until you understand their views and why they have them. Everyone will have different thoughts about the vaccine. You should focus on what matters most for your child. Remember, this is an important issue and may need more than one conversation.

Be open about the vaccine and the vaccination process

Explain honestly, and in an age-appropriate way, what you know about the COVID-19 vaccine.

Share why you decided to get vaccinated or why you think it is important they do.

It may help to explain to your child what they can expect on the day of the appointment.

If your child seems anxious about getting vaccinated, try **exploring their feelings further** or seek advice from your GP if necessary.

Answer your child's questions

It is good to prepare. Here are some key questions and answers that might help you.

What is a vaccine?

- A vaccine is a medicine that helps people fight a virus if they come in contact with it.
- Vaccines have been used to beat many viruses in the past.

How do vaccines work?

 Vaccines work by teaching your body how to fight illness. It can stop you from getting very sick.

Is the vaccine safe?

- Vaccines are very safe. In Australia, they have been tested thoroughly by an agency that makes sure all medicines are safe. They would not be used if they were not safe.
- Millions of people like you have already had the vaccine it has worked and been safe.

Why does it matter? I don't feel that Covid-19 is a risk for me

- The more people who have the vaccine the more it helps protect other vulnerable people like [your grandparents].
- Some young people get very sick from COVID.
- More people vaccinated means life can get back to normal sooner. I want to [go camping this summer] and you wouldn't want to miss out on [seeing friends] would you?

Keep the conversation open

The conversation on vaccines does not have to happen all at once. You should reflect back to your child what you understood their concerns to be. Check back in with them at a later time.

More information

You can visit the Department of Health website at www.health.gov.au for more information about the vaccine.

You can call the National Coronavirus and COVID-19 Vaccine Helpline on 1800 020 080.

If you need information in a language other than English, call the Translating and Interpreting Service on **131 450**.

If you are deaf, or have a hearing or speech impairment, you can call the National Relay Service on **133** 677.





SLHD Vaccination Trial

Summary of recommendations for vaccine messaging trial

October 2021



Contents

- Purpose of this document
- 2. Behavioural barriers and key BI concepts
- 3. Behaviourally-informed messaging to address behavioural barriers
- 4. Evaluation
- 5. What the literature says

Purpose of this document

This document provides a summary of key messages designed to increase uptake of the COVID-19 vaccination. These messages have been designed using behavioural insights and evidence from around the world.

The messages included have been designed to address specific behavioural barriers along the current journey, and can be used to guide the Sydney Local Health District in designing future communications with patients.

This document also contains technical considerations for testing and evaluating the messages.

SLHD Vaccination Messaging Trial

Our journey to date



BETA/BIT/SLHD workshopped to identify the behavioural barriers. Design **messages** to address behavioural barriers using **Behavioural Insights**

BETA/BIT collaborated to design messages that address each behavioural barrier.

These messages are included in this deck.

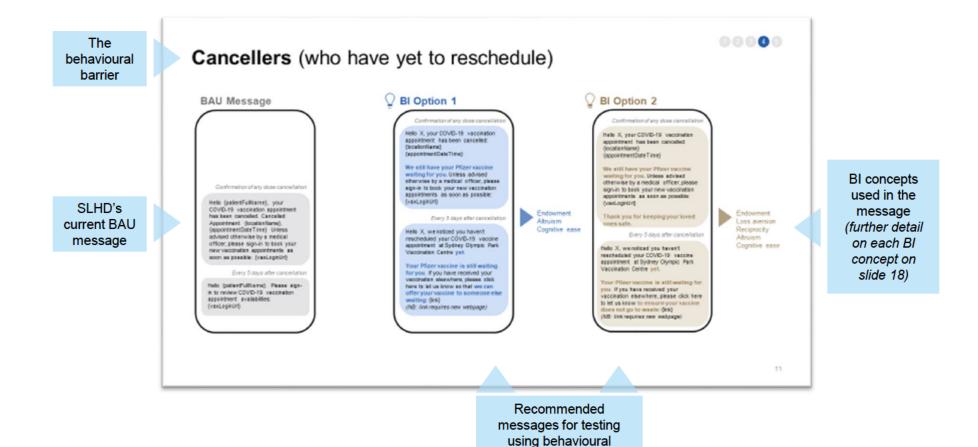
Test the effectiveness of messages using a trial



We recommend running a trial where possible to see the impact of any further communications.

The messages in this deck serve as suggestions that could be trialled, and evaluation considerations are included in this deck.

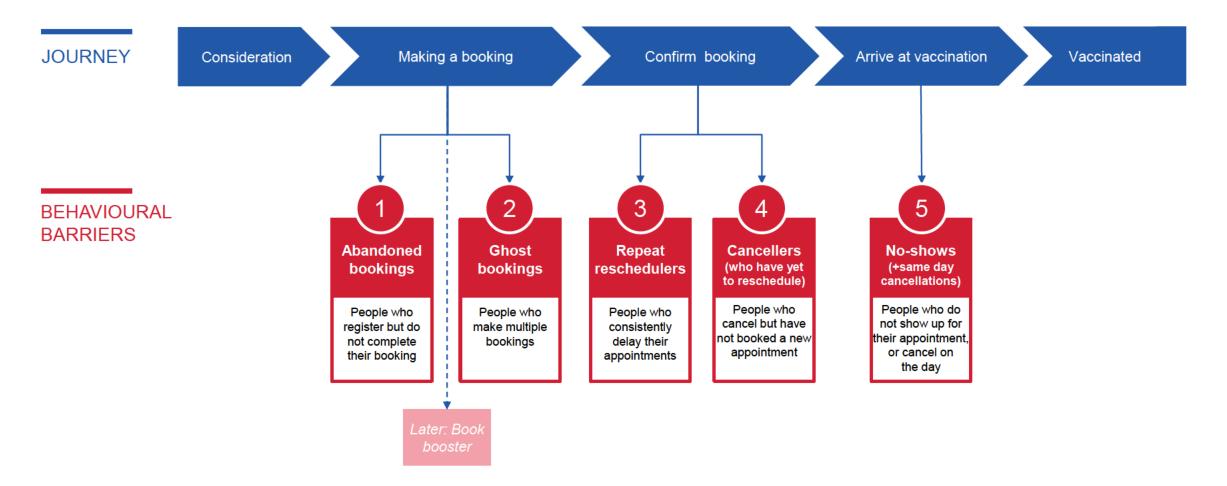
How to read this document



insights to address the barrier



There are 5 behavioural barriers along the current journey



We recommend testing 5 key behavioural concepts in messages



Endowment effect

We tend to place greater value on things we own.

Framing the vaccine as "your vaccine" can increase feelings of ownership and encourage uptake.



Loss aversion

People dislike losses more strongly than gains of the same value.

We can encourage the desired behaviour of attending appointments by bringing salience to the wasted vaccines by not attending.



Safety framing

The way in which information is presented can influence our decision making.

Framing the vaccine as a means to "keep your loved ones safe" brings salience to the benefits of the vaccine.



Altruism

People are motivated to help others.

We can frame early cancellations as "allowing someone else waiting" to receive the vaccination.



Social norms

We tend to follow others' behaviours and treat the social environment as a source of information.

Communicating the large number of people who have already been vaccinated can provide social proof and encourage others to get vaccinated.

Note: using social norms to encourage vaccination uptake should be used with caution as some studies have shown this to backfire. We recommend any social norms message be tested.



Foundational BI elements to include in all communications

Current BAU message
1 day before appointment

Hello {patientFullName}, this is a reminder to attend your COVID-19 vaccination appointment: {locationName} {appointmentDateTime} Your check in code is {patientIdWithSpecials} For more information on what to expect on the day of your appointment, and what you need to bring, please visit: {vaxMapPdfUrl}. If you have any cold or flu like symptoms, please reschedule. To reschedule or cancel your appointment, please sign in here: {vaxLoginUrl} Questions? Call {location.meta.hotline}

BI-optimised message 1 day before appointment

Hello {patientFullName}, this is a reminder to attend your COVID-19 vaccination appointment: {locationName} {appointmentDateTime}

Please bring your check in code: X

Important info:

- For more info on what to expect and what to bring, please visit <short bit.ly link>
- Please reschedule if you have cold or flu like symptoms
- To reschedule or cancel your vaccine tomorrow, click here <short link>
- Questions? Call 1800 57 11 55

Timely prompts: studies show reminder messages are effective at increasing vaccination rates

Personalisation: people respond better to information that is tailored to them

Salience: provide space around key information to make it stand out

Cognitive ease and chunking: make it easy to process information by chunking out into steps / separate messages and creating new lines for each point



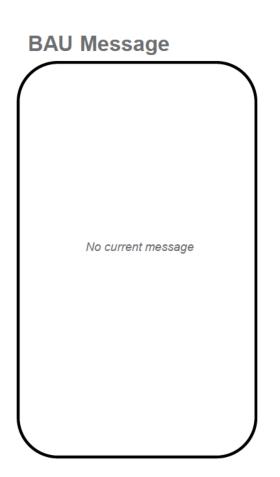


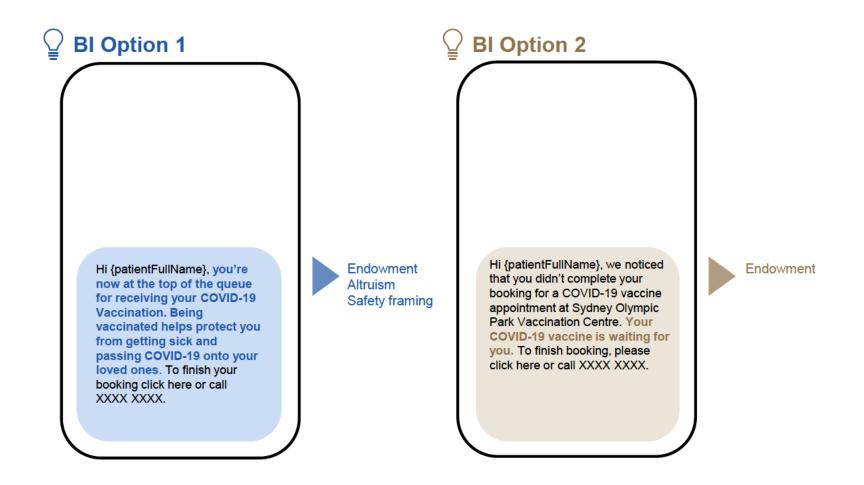
BI Messaging

Example messages for each behavioural barrier



Abandoned bookings

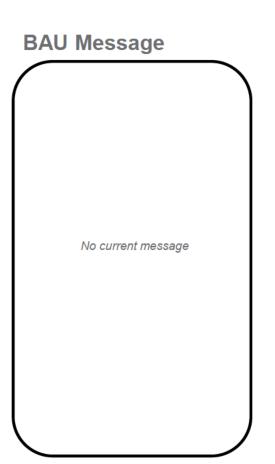


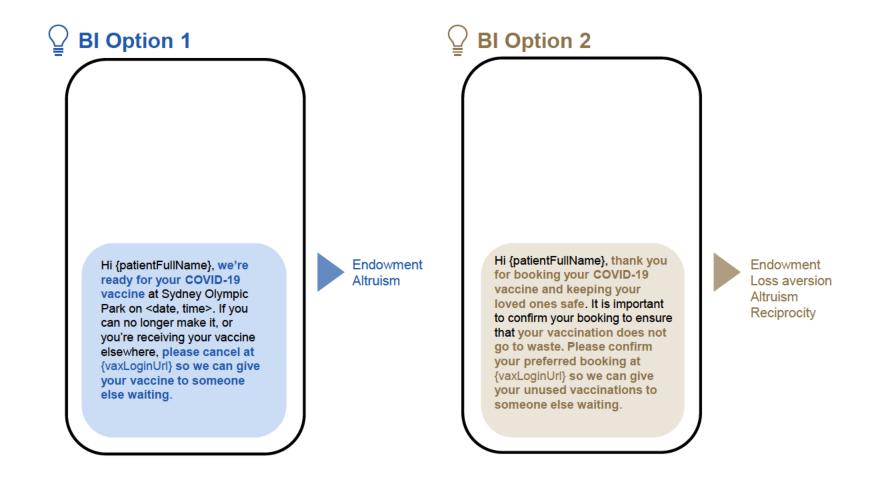




1 2 3 4 5

Ghost bookings









Repeat reschedulers



No current message



BI Option 1

Hi {patientFullName}, we've noticed that you've changed your COVID-19 vaccination booking a few times. If you are uncertain about getting the vaccine, you can visit the **NSW** Health website or speak to your GP. Click here when you're ready to reschedule.



Timely prompt

NB: the drivers behind repeat rescheduling appointments are currently unclear (e.g., it may be due to forgetfulness or hesitancy). We recommend understanding the drivers in order to create a tailored message that addresses persistent rescheduling.











BAU Message

Confirmation of any dose cancellation

Hello {patientFullName}, your COVID-19 vaccination appointment has been cancelled. Cancelled Appointment: {locationName}, {appointmentDateTime} Unless advised otherwise by a medical officer, please sign-in to book your new vaccination appointments as soon as possible: {vaxLoginUrl}

Every 5 days after cancellation

Hello {patientFullName}. Please signin to review COVID-19 vaccination appointment availabilities: {vaxLoginUrl}



Cancellers (who have yet to reschedule)

BI Option 1

Confirmation of any dose cancellation

Hello {patientFullName}, your COVID-19 vaccination appointment has been cancelled: {locationName} {appointmentDateTime}

We still have your Pfizer vaccine waiting for you. Unless advised otherwise by a medical officer, please sign-in to book your new vaccination appointments as soon as possible: {vaxLoginUrl}

Every 5 days after cancellation

Hello {patientFullName}, we noticed you haven't rescheduled your COVID-19 vaccine appointment at Sydney Olympic Park Vaccination Centre yet.

Your Pfizer vaccine is still waiting for you. If you have received your vaccination elsewhere, please click here to let us know so that we can offer your vaccine to someone else waiting: {link} (NB: link requires new webpage)



Endowment Altruism Cognitive ease

BI Option 2

Confirmation of any dose cancellation

Hello {patientFullName}, your COVID-19 vaccination appointment has been cancelled: {locationName} {appointmentDateTime}

We still have your Pfizer vaccine waiting for you. Unless advised otherwise by a medical officer, please sign-in to book your new vaccination appointments as soon as possible: {vaxLoginUrl}

Thank you for keeping your loved ones safe.

Every 5 days after cancellation

Hello {patientFullName}, we noticed you haven't rescheduled your COVID-19 vaccine appointment at Sydney Olympic Park Vaccination Centre yet.

Your Pfizer vaccine is still waiting for you. If you have received your vaccination elsewhere, please click here to let us know to ensure your vaccine does not go to waste: {link} (NB: link requires new webpage)

Endowment Loss aversion Reciprocity Altruism Cognitive ease









BAU Message

1 day before appointment

Hello {patientFullName}, this is a reminder to attend your COVID-19 vaccination appointment: {locationName} {appointmentDateTime} Your check in code is {patientIdWithSpecials} For more information on what to expect on the day of your appointment, and what you need to bring, please visit: {vaxMapPdfUrl}. If you have any cold or flu like symptoms, please reschedule. To reschedule or cancel your appointment, please sign in here: {vaxLoginUrl} Questions? Call {location.meta.hotline}



No shows (and same-day cancellations)

BI Option 1

5 days before appointment

Hello {patientFullName}, your Pfizer vaccine is ready / waiting for you. We'll see you at Sydney Olympic Park Vaccination Centre on {date/time}.

To reschedule or cancel your vaccination, click here {short link}.

1 day before appointment

Hello {patientFullName}, you are now at the top of the queue to receive your Pfizer vaccine. We'll see you at {time} tomorrow {date} at Sydney Olympic Park Vaccination Centre to receive it. Thank you for joining the millions of Australians who are already vaccinated, and keeping their loved ones safe.

Please bring your check in code: X

Important info:

- For more info on what to expect and what to bring, please visit <short link>
- Please reschedule if you have cold or flu like symptoms
- To reschedule or cancel your vaccine tomorrow, click here {short link}
- Questions? Call 1800 57 11 55



Timely prompt

Endowment

Social norms

Cognitive ease

Altruism

Chunking

BI Option 2

5 days before appointment

Hello {patientFullName}, your Pfizer vaccine is ready / waiting for you. We'll see you at Sydney Olympic Park Vaccination Centre on {date/time}. By attending, your vaccine won't go to waste. If you can't make it, reschedule now to allow someone else waiting to have your vaccine.

To reschedule or cancel your vaccination, click here {short link}.

1 day before appointment

Hello {patientFullName}, you are now at the top of the queue to receive your Pfizer vaccine. Your vaccine is waiting for you at {time} tomorrow {date} at Sydney Olympic Park Vaccination Centre. By attending tomorrow, you ensure your vaccine won't go to waste.

Please bring your check in code: X

Important info:

- For more info on what to expect and what to bring, please visit {short link}
- Please reschedule if you have cold or flu like symptoms
- To reschedule or cancel your vaccine tomorrow, click here {short link}
- Questions? Call 1800 57 11 55

Timely prompt Endowment Altruism

Loss aversion Cognitive ease Chunking





Evaluation

Considerations when planning an evaluation



Evaluation considerations

Below is a summary of our previous discussions between BETA/BIT/SLHD on evaluation considerations and a few added considerations for easy reference and to share with others.

System requirements

- Ability to randomly assign people to groups (minimum 2 groups) either when they register in the system or afterwards.
- Randomisation could be based on probabilities (e.g., 50% chance of allocation to either group) or on phone numbers (e.g., odd final digit assigned to Group A, even final digit assigned to Group B).
- Ability to create and store different versions (minimum 2) of messages or emails.
- Ability to send different messages to different groups, for example Message A to Group A, Message B to Group B, etc.
- Track which people received which message, and what the outcome was (e.g., did they attend appointment, cancel appointment, etc.).

Trial considerations

- Sample size: larger samples enable more precise estimates of the effect of the intervention. We often default to a minimum of 1000 people for each group, but a formal power analysis can help determine the required sample size. We have seen small effect sizes in other trials, therefore a larger sample is beneficial.
- Sample selection: Are particular cohorts of greater interest? Are you planning subgroup analyses? Confidence in subgroup results requires a large sample size for that subgroup.
- Trial dates: Related to sample size (how long will the trial need to be in the field in order to achieve the desired sample size), but also requires a definition of the trial end-point. If the trial ends on date X, how will you record the outcomes for a person with an appointment on date X+1 (e.g., recorded as not vaccinated)?
- Method of analysis: We recommend planning the statistical analysis on a test dataset before commencing the trial, to ensure that the required variables (e.g., group allocation, outcome measures) are being recorded as planned.

Ethics, privacy, & data sharing

- Ethics: The current consent form for vaccination with the Sydney LHD includes consent to data being used in research. If the scope of the research or data being collected changes, the consent form may also need to be updated. Ethical review is also recommended for any research that is specifically recruiting vulnerable cohorts.
- Privacy: Data from a messaging trial can be de-identified relatively easily, as the only variables strictly required for analysis are the group allocation (e.g., A vs B) and outcome (e.g., vaccinated vs not).
 However, subgroup analyses often rely on more identifiable information (e.g., post code, gender), and should be treated with care.
- Data sharing: The Office of the National <u>Data Commissioner</u> provides a template Data Sharing Agreement, and recommends considering data sharing principles around five key areas: the data itself, the people accessing and using the data, the project it is being used for, the setting, and the outputs of the data analysis/use.

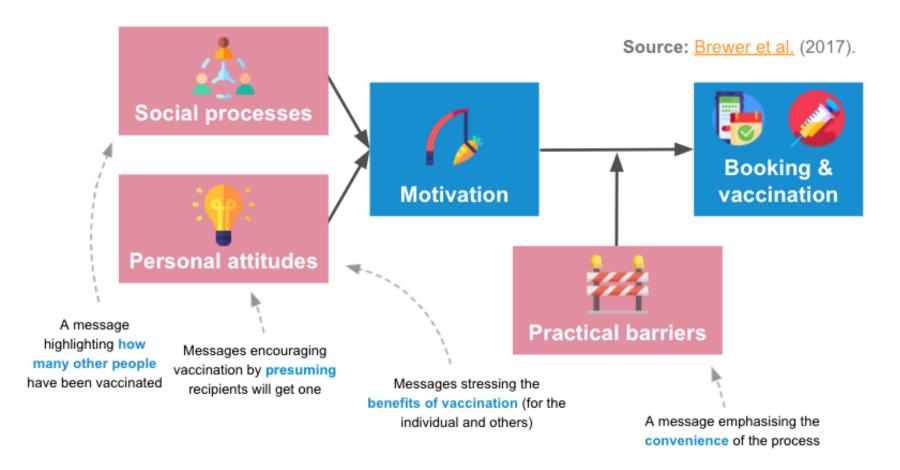
What the literature says

Summary of relevant literature and BI principles



A theoretical model to address vaccine hesitancy

Theoretical model: factors affecting vaccine hesitancy and how the messages address them



We designed our messages based on the current literature

Behavioural principle	Example message / description	Evidence	Recommendations
Endowment	Your COVID-19 vaccine is ready for you. You're now at the top of the queue for receiving your COVID-19 vaccination.	Replicates a successful <u>SMS reminder for flu vaccines in the US,</u> as well as study on <u>COVID vaccines</u>	We recommend including endowment in all communications where possible
Social norms	Join the millions of Australians who have already received their vaccine.	 Some evidence that uptake is affected by perceived social norms about uptake in people's broader social circles and community However, social norms message backfired in the UK (BIT trial); this may be due to social loafing 	
Loss aversion	By attending tomorrow, you ensure your vaccine does not go to waste.	 A trial run by BIT and the NSW BIU with St Vincent's Hospital found using loss aversion in their text reminders led to a 19% reduction in missed appointments ("If you attend, the hospital will not lose the \$125 we lose when a patient does not show up. This money will be used to treat other patients.") This has subsequently been scaled to Central Coast LHD and demonstrated similar results. 	 Use loss aversion to reduce no-shows and ghost bookings by framing inaction as wastage
Altruism / Moral obligation	Thank you for keeping your loved ones safe. [Reschedule now] to allow someone else waiting to have your vaccine.	 This type of message draws on our sense of moral obligation and altruism. We know that people can be very motivated to help others, sometimes more so than taking actions that help themselves. In a recent study on reducing vaccine hesitancy in the US, the Behavioural Insights Team (BIT) found that messages using the phrase "Your loved ones need you. Get the COVID-19 vaccine to make sure you can be there for them" were most impactful in reducing hesitancy. 	 We recommend including altruism in all communications where possible Use "someone else waiting" to reduce no-shows and ghost bookings by framing inaction as preventing others from getting the vaccine
Safety framing	Being vaccinated helps protect you from getting sick and passing COVID-19 onto your loved ones.	 A <u>recent study</u> found that highlighting personal benefit and safety was 9% more effective than a social benefit nudge in COVID vaccine uptake ("In a large-scale research study, the vaccine was found to be effective and reduce 94% of COVID-19 morbidity!") A message emphasising safety was shown to be effective in a <u>public opinion poll</u> However, other studies have shown that safety messages can backfire 	
Timely prompts	Reminders via text message, postcards, computerised phone calls	 Based on a review of 75 studies aimed at evaluating whether reminding people to get vaccinated worked, a 2018 Cochrane review found that reminding people to have vaccinations likely increases the number of people who receive vaccinations by an average of 8 percentage points 	 Consider adding a 5-day reminder message before each dose to provide more opportunities to cancel in advance, and reduce no-shows
Cognitive ease	The ease with which our brains can process information, aided by spacing and chunking.	<u>A study</u> found that simplifying the design of hospital charts led to a reduction in prescription errors.	Split long texts into two separate textsProvide line spacing for new points
Chunking	Presenting the same information in 'chunks' increases our ability to process information	 A study by BIT found providing a postcard with a checklist of action items increased online licence plate renewals by 7-8%. 	Split long paragraphs into a list with bullet points





Thank you

General enquiries **beta@pmc.gov.au**Media enquiries **media@pmc.gov.au**Find out more **pmc.gov.au/beta**

Behavioural Economics Team of the Australian Government & The Behavioural Insights Team

Feedback on current NSW website

Priority COVID-19 vaccination booking for 16 to 39 year-olds

Last updated: 17 August 2021



The majority of people with COVID-19 in NSW are under 40. To reduce the spread of the virus, people aged 16 to 39 living in areas of concern can now access priority vaccination appointments.

On this page

Who can book

Booking your vaccination

Vaccination locations

Related information

Suggested edits:

- Priority Pfizer COVID-19 vaccination booking for 16 to 39 year-olds
 - Adding in that the Pfizer vaccine is available could be beneficial to driving uptake. We know from multiple sources and surveys that choice of vaccine is a major factor for many people in deciding if to vaccinate.
- Who can book > Local government areas of concern
 - Suggest this list be organised in two columns so as not to take up so much vertical space.
 - Suggest reframing is 'priority' rather than 'of concern' LGAs to encourage vaccination,
 e.g. Priority local government areas of concern
- Who can book > Why get vaccinated
 - Suggest including information on long COVID to battle young people's impression of being able to bounce back quickly if they get COVID due to their health and age. E.g. COVID can have long term effects such as ongoing brain fog and fatigue.
 - o The current information may inadvertently send the message that COVID isn't as serious for young people. It states that while the majority of people with COVID are under 40, only a quarter of those in intensive care are under 40. This signals that while a young person may catch it, it won't be that serious.
- Vaccination locations
 - o If possible, we suggest moving the details of vaccine locations **up** to be immediately after the 'who can book' section. Put links to vaccination locations (next section) right up there with the target LGAs. The sections on 'why get vaccinated' and 'booking your vaccination' add complexity and friction (especially the details about the second booking) it may be simpler to demote this content further down the page.

Suggested additions

- Highlight vaccination clinics with extended hours of operation:
 - o "The following vaccination centres are open 24/7: [list]" or highlight 24/7 clinics in the table of vaccine locations
- Make it easy to get vaccinated:
 - o Provide free transport to the vaccination centre here's how [link]
 - o Provide free/discounted parking at vaccination locations.
- Encourage people who help others get vaccinated:
 - o 'tell a friend/got a friend in one of these priority LGAs? send them [this link] to prompt them to book'.
- Reinforcing that attending a vaccination appointment is a legitimate reason for leaving your home during lockdown.

Feedback on sample social media message

Messaging currently being shared by NSW Health:

Are you aged 16 to 39?

Do you live in the local government areas of Bayside, Blacktown, Burwood, Campbelltown, Canterbury-Bankstown, Cumberland, Fairfield, Georges River, Liverpool, Parramatta, Strathfield or Penrith?

We have priority COVID-19 Pfizer vaccination appointments available now at RPA hospital. Book your appointment and help us stop the spread of COVID-19 in our community. Please make your booking here:

bit.ly/mycovaxvc18

Let's do this - we're stronger together.

Suggested edits:

- Consider including the reasons to vaccinate into the message.
 - E.g. The majority of people with COVID-19 in NSW are under 40. COVID can have long term effects such as ongoing brain fog and fatigue.
- We have priority COVID-19 Pfizer vaccination appointments available now at RPA hospital. Suggest reframing slightly:
 - o Priority COVID-19 Pfizer vaccination appointments are available for you now.
- Book your appointment and help us stop the spread of COVID-19 in our community. Suggest reframing slightly:
 - Help us stop the spread of COVID-19 in our community. Make your booking here: [link]
- **Do you live in the local government areas of...** Suggest reframing to "Do you live in a priority LGA?" If short on space.

Message ideas to encourage people to book a vaccination appointment

The below table includes suggested messages that could be sent to the LHD's pre-existing data bases – for example to people who have been tested for COVID-19 at the centre, or who have created an account but not yet booked an appointment. Some of these messages will be better suited to some cohorts than others – we have also included examples for people who *have* been vaccinated but who may be prompted to encourage others to receive a vaccine.

Message	Why / Evidence	
"Your COVID-19 vaccine is waiting for you"	 Replicates a successful SMS reminder for flu vaccines in the US Induces a sense of reciprocity and endowment. https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3780356. The message was sent to people who had previously had a flu shot – but hadn't had one for the current flu season. Actual COVID-19 vax study: https://www.nature.com/articles/s41586-021-03843-2 The top-performing reminder type contained the ownership language (vaccine available for you, claim your dose), boosting appointment and vaccination rates at UCLA Health by 6.83pp (94.84%) and 4.13pp (29.63%), respectively, relative to the Holdout arm (no reminder). Actual message used: UCLA Health: [Patient's name], a COVID-19 vaccine has just been made available to you at UCLA Health. Claim your dose today by making a vaccination appointment here: uclahealth.org/schedule 	
"Thank you for helping our community" "Keep your loved ones safe"	 This type of message draws on our sense of moral obligation and altruism. We know that people can be very motivated to help others, sometimes more so than taking actions that help themselves. In a recent study on reducing vaccine hesitancy in the US, the Behavioural Insights Team (BIT) found that SMS prompts using the phrase "Your loved ones need you. Get the COVID-19 vaccine to make sure you can be there for them" were most impactful in reducing hesitancy. 	
"If you have friends or family who are interested in the vaccine but haven't yet booked, you can share this link to get them started: https://reallink.au"	In addition to encouraging people to share their vaccine status with friends and family to help boost positive social norms , providing people with the tools to help them talk to friends and family who have yet to get a vaccine could help harness a type of messenger effect . People may be more inclined to talk about the vaccine, appointment process, and benefits of getting the vaccine with a trusted friend or family member.	
"Do you have a friend between 16 and 39 in a priority LGA? Share this priority booking link with them: [link]"	We could harness this trust by helping support those who have been vaccinated to talk to their friends and family in a constructive way.	

"Have you been vaccinated? Encourage your friends between 16 and 39 to access a priority appointment here: [link]"		
"Thank you for helping Australia/NSW [get back on track / reconnect (with the world)]"	 Similar to other messages encouraging altruism, and thanking people for their efforts, drawing people to a collective (Australia or NSW) could also be motivating for some people to follow through with their vaccination program. It's unclear how much people will identify with Australia as a whole, and given the extended lockdown referring to NSW may be more impactful. The theory of social identity suggests that people can be motivated by their feeling of belonging to a group. In this sense, we could vary "Australia" and make this group smaller and more relevant (for example, state/territory or city/town level). 	
"Share your vaccine appointment with family and friends"	 We know from other research on vaccine take up that people's willingness to be vaccinated is related to their perception of vaccine uptake by others in their social circle (de Bruin et al 2019). By encouraging people to share information about their vaccine status, we can try to bolster the willingness of others in their network to be vaccinated. In a study of online content related to vaccines shared online, Xu & Guo (2018) found that although anti-vaccine messages (AVMs) were more pervasive online than pro-vaccine messages (PVMs), among pro-vaccine messages, those with more positive sentiment words were more likely to be shared, commented on, and reacted to online. We can encourage greater sharing of positive vaccine messages, including people's own vaccine journey, to help bolster beneficial social norms. 	
"You are about to join the ## of people in NSW who have been vaccinated"	There is some evidence to suggest that uptake of vaccines is affected by perceived social norms about uptake in people's broader social circles or community. In a study of 357 participants from RAND's American Life Panel, de Bruin et al (2019) found that those who perceived that a greater number of those in their social circle had been vaccinated were more likely to be vaccinated in that year's flu season and in the subsequent year's flue season. Note that these effects were not evident in flu seasons four years later, though it is unclear why.	
"Deadline for priority appointments is XX/XX – get your vaccine now"	 Introducing a deadline can encourage a sense of urgency which could assist in bringing forward people's intention to vaccinate. We appreciate this may be sensitive given the chatter on Twitter and in the media currently. Some on social media have been expressing the view that if vaccines are about to expire they are not as good (e.g. you wouldn't buy milk that is going to expire the next day). Suggest 	

	using caution if using this message or providing counter messages to the misperceptions that they are less effective if they are near their expiry date.
"Have you been vaccinated against COVID-19? If not, you are in a priority group for receiving a Pfizer vaccine now"	 If it's possible to target cohorts of interest, a message framing these groups as a priority may help to create a sense of importance and induce a sense of endowment. Implying a sense of urgency may also help to bring forward vaccination.

What the literature says on vaccine communications

Below is a summary of some key findings from the literature available on vaccine communications and uptake. It's by no means comprehensive – but it's a start!

- A meta-analysis in December 2020 of thirty five studies found that moderate to high quality studies consistently found that communications were most impactful when providing:
 - information about virus risks
 - vaccination safety
 - addressing misunderstandings about vaccination
 - detail about vaccination clinics and their locations, and
 - mixed media campaigns at scale across hospitals or communities.
- Behavioural influences (beliefs and intentions) were improved when shorter messages, risk-reducing, or relative risk framing was used, the benefits of vaccination to society were emphasised, and beliefs about capability to be vaccinated and concerns among target populations (e.g. about vaccine safety) were addressed.
- Using specific messengers can help encourage people to make appointments in the first place. A 2019 study from a global communications consultancy found that email prompts to book vaccine appointments were effective in encouraging staff to make bookings. An email from the Managing Director led to 27% of recipients booking an appointment, and including the line 'if I can make time, then you can too' led to 40% of recipients making bookings.

Large trial in Israel:

Both personal and social benefit messages boosted vaccination rates over no message (but note that *everyone* received the baseline message a week before the trial began). Another pointer to take from this is that these vaccination centres appear to have accepted walk-ins.

Message type	Message text	Cumulative rate of vaccination
Baseline (sent to everyone before trial began)	Hello [name], This is a reminder to get vaccinated for COVID-19. This is the quickest way to get back to daily life. The vaccine is available for you at the closest CHS vaccination area [link]. If you'd prefer, you can schedule an appointment	16.4%
Personal benefit	[here]. Hello [name], In a large-scale research study conducted by the Clalit Research Institute, the vaccine was found to be effective and reduce 94% of COVID-19 related morbidity! The vaccine is reserved for you today, at the [closest CHS vaccination area] until 21:00. If you'd prefer, you can schedule an appointment [here].	23.8%*
Social benefit	Hello [name], It's time for you to join 3.5 million vaccinated citizens who protected themselves and those they care about. The vaccine is reserved for you today, at the [closest CHS vaccination area] until 21:00. If you'd prefer, you can schedule an appointment [here].	21.7%*

Note: Baseline message was sent at 10:00 a.m. on February 08, 2021 and the personal and social benefit were sent at 10 a.m. on February 16,2021. The cumulative rates of vaccination were calculated during the week following the intervention.

Dai et al: Behavioural Nudges Increase COVID-19 Vaccinations

Two sequential RCTs in collaboration with UCLA Health, testing the impact of text-based reminders on appointments and vaccination rates.

- The first RCT included 93,354 patients who were sent one of four reminder text-messages, vs *no* text-message, on "first reminder date".
 - o In the no-text-message group, 7.2% of patients had booked an appointment within six days of the reminder date, and 13.9% had been vaccinated within four weeks
 - o All reminder groups outperformed the no-text-message group: a text message boosted appointment rates within six days by 6.07 percentage points, and vaccination within four weeks by 3.6 percentage points
 - o The top performing message included "ownership language", similar to in the studies outlined above.