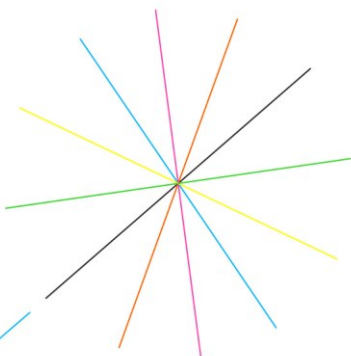


# National Immunisation Research

## Quantitative Research Report

Prepared by  
**Andrew Wolstenholme, Claire Duffy & Craig Smith**  
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## 1. EXECUTIVE SUMMARY

### 1.1 Background

The National Immunisation Program (NIP) schedule of recommended vaccines includes vaccines against a total of 17 diseases. Despite support for immunisation in Australia being high, not all Australians are in favour or comply with the schedule – sometimes people vaccinate, but not within the recommended timeframe, and some choose not to vaccinate at all. The implications of not complying with the NIP schedule or not vaccinating at all include ineligibility for some family assistance payments, restrictions on child care and school enrolment, and, more broadly, the potential risk of diseases spreading to individuals and to the wider community.

Prior to undertaking the research, a range of potential barriers were believed to exist around immunisation – some philosophical, with others being more practical in nature and related to time constraints and access issues. It was understood that the role of health professionals around immunisation was pivotal – with previous research indicating that most people listen to doctors and nurses and largely take their advice.

The Department of Health (the Department) identified a need to gather a strong, detailed view of the current state of play in terms of attitudes and behaviour toward vaccination amongst parents of children aged 0-12 and other adults aged 70+, to inform communication activity in this space.

The flu vaccine was selected as a specific focus for this study amongst the over 70s audience as this is typically their reference point when discussing immunisation in general and how it relates to their own health.

### 1.2 Research methodology

This specific piece of quantitative research was designed to build upon the findings from the qualitative phase of research undertaken in 2016 to identify immunisation information needs<sup>1</sup>. Specifically, to validate and 'size' the prevalence of the attitudes and behaviours uncovered amongst parents of children aged 0-12 (and grandparents where possible) regarding childhood immunisation and older adults (70+) regarding their own immunisation.

Consequently, the immunisation quantitative research was conducted via two separate online surveys:

- 1) n=1200 parents of children aged 0-12
  - a. n=872 with children aged 0-5
  - b. n=328 with children aged 6-12
- 2) n=600 older adults aged 70+.

Both sample groups were recruited from an online research panel and fieldwork took place between 8 – 21 March 2017.

A separate online survey ascertaining community attitudes and behaviours in relation to the flu vaccination amongst the Australian population was also conducted concurrently. The findings of this research are available in a separate report<sup>2</sup>.

### 1.3 Parent typologies (support, knowledge & engagement) – qualitative summary

The qualitative research undertaken prior to this quantitative study showed that parental confidence with regards to immunisation increases as parents gain more experience. Over time, as parents go

<sup>1</sup>Research to identify immunisation needs, Qualitative Research Report, August 2016.

<sup>2</sup>Community Attitude Research on Flu Vaccination, Quantitative Research Report. July 2017

through the various milestones in their children's health and upbringing, they tend to become more relaxed, confident in their decisions and overall are happier with the choices they make. Further, as time goes on they are more likely to have their own experiences (positive or negative) which subsequently inform their attitudes and behaviours.

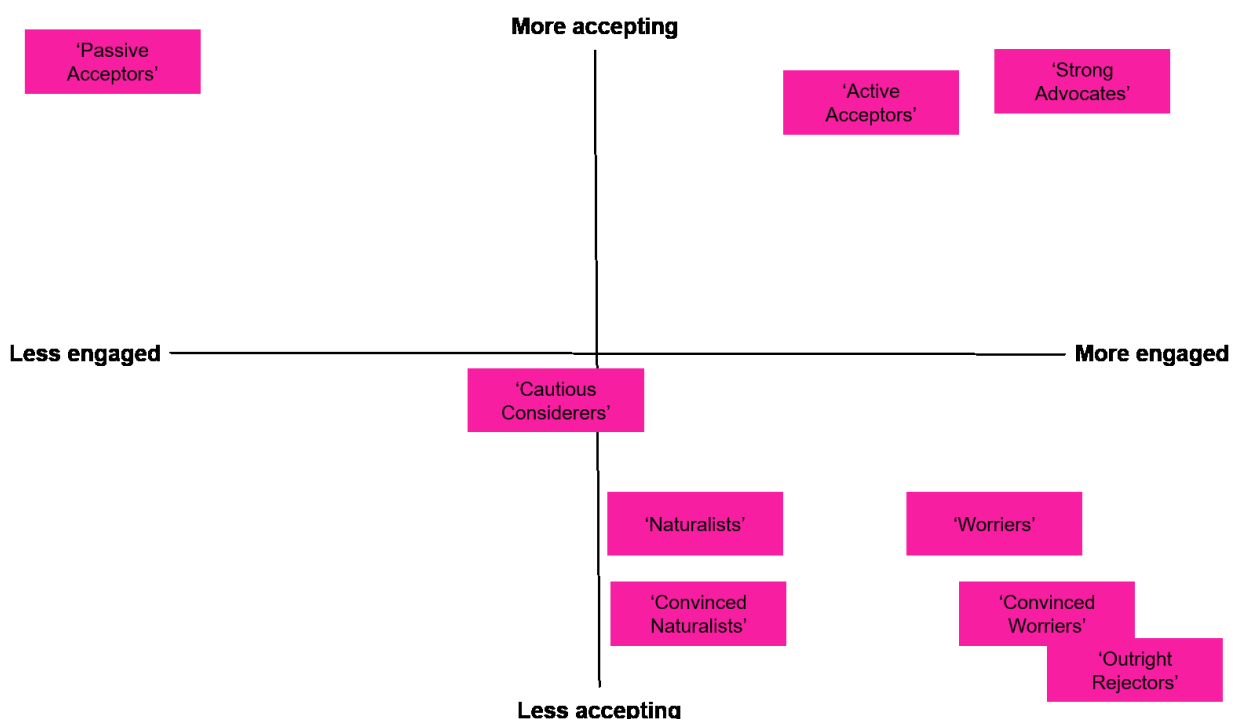
Attitudes toward immunisation vary widely between different parents. The research established a range of different 'types' of parents. These types were identified by evaluating how engaged parents are with the topic of immunisation, and how accepting they are of it.

'Engagement' essentially describes the extent to which parents are interested in the topic of immunisation. Engaged parents tend to have a need to be relatively informed, and are prepared to think about the topic, often in quite a bit of detail. Engagement is often expressed behaviourally by seeking out information and talking about immunisation. This engagement exists on a spectrum, with some parents being highly engaged with immunisation, while others are barely engaged at all.

'Acceptance' describes the extent to which parents are comfortable for immunisation to be a part of their approach to their children's health. Parents who are accepting tend to see immunisation as a fundamentally positive health intervention, and the most obvious expression of acceptance is a clear willingness to immunise their children. Similar to engagement, it is clear that acceptance exists on a spectrum - some parents are highly accepting, while others have reservations and some entirely reject the idea that immunisation is positive for their children.

Using these two dimensions of engagement and acceptance, a number of 'types' of parents of children aged 0-12 emerge. The matrix below depicts the different parent 'types' and where they are positioned in terms of their levels of acceptance and engagement with regards to immunisation.

**Figure 1. Parent typologies (identified in the qualitative phase)**



Based on the findings from the qualitative research, a statement was developed to describe each of the different typologies as per the details in Table 1 below. As part of the quantitative survey, parents of children aged 0-12 were asked to select which one of the nine statements best described their personal opinions about childhood immunisation. Based on their selection, parents were then classified accordingly into one of the nine different typologies.

**Table 1. Parent typologies (statements from the quantitative phase)**

TYPOLOGY	STATEMENT
<b>Strong Advocates</b>	I am strongly in favour of childhood vaccination. I have done a lot of research and have a good understanding of the issues. I am comfortable sharing my views and will try to persuade others to change their opinions of vaccination if they are against it.
<b>Active Acceptors</b>	I am in favour of childhood vaccination. I have done a bit of research from which I feel well enough informed to be comfortable in my choices. I don't go out of my way to talk about it but am happy to discuss with others if the topic comes up.
<b>Passive Acceptors</b>	I am in favour of childhood vaccination and see it simply as something you have to do for your children. I don't tend to think about it much, beyond making the necessary appointments. I trust the healthcare system to do the right thing and don't feel the need to understand all the details.
<b>Cautious Considerers</b>	I am not against childhood vaccination, but I do worry a bit about things that could potentially go wrong. I haven't done a lot of research into the subject. I would like to feel reassured that it is okay for my children.
<b>Worriers</b>	I don't really know where I stand on childhood vaccination. On the one hand, I can see the benefits for my children, but at the same time I worry a lot about the risk of something going wrong. Because of this I like to know all the details of any vaccination that my child receives. Thinking about it makes me feel anxious.
<b>Naturalists</b>	While I sometimes think vaccination is right, I prefer not to over medicalise my children and look for alternative approaches to medicine and wellbeing as far as I can.
<b>Convinced Worriers</b>	I do not believe in childhood vaccination. There are far too many risks involved that I believe outweigh the benefits. I do a lot of reading on the subject and am horrified by the personal reports of negative experiences. For these reasons, I tend to warn others against having their children immunised.
<b>Convinced Naturalists</b>	I am opposed to childhood vaccination and pharmaceutical medicine in general. I try to live a natural life and encourage my children to do the same. We avoid artificial foods and substances and instead use natural remedies.
<b>Outright Rejectors</b>	I am strongly opposed to childhood vaccination. It is nothing more than propaganda designed to control the population and only serves the interests of politicians and pharmaceutical companies, not the people. I don't often share my views with others as they may react badly.

In the quantitative research, eight in ten parents classify themselves as 'Strong Advocates', 'Active Acceptors' or 'Passive Acceptors' when asked about their attitudes toward childhood immunisation. A small number of remaining parents are somewhat unsure and require some reassurance about childhood vaccination, generally classifying themselves as 'Cautious Considerers' or 'Worriers' ('On the Fence'). A small minority of parents don't believe in or are opposed to immunisation, classifying themselves as 'Convinced Worriers', 'Convinced Naturalists' or 'Outright Rejectors' ('Rejectors').

Based on the fairly consistent size of the different typologies across parents of younger and older children, it seems that broad attitudes about childhood vaccination are established early on (i.e. with the first child) and tend not to change as the child gets older or as the parents have more children.

Despite the high level of support for childhood immunisation, parents' level of engagement with the topic is quite varied, as is their perceived level of knowledge with four in ten parents rating their knowledge as 'fair', 'poor' or 'very poor'. That said, amongst those parents who have 'very good' or 'good' knowledge of which diseases their child has been vaccinated for, their support for childhood immunisation is very strong. At the same time, those parents classified as 'Rejectors' feel their position is based on a solid level of understanding around the subject matter with seven in ten Rejectors claiming they have 'very good' or 'good' knowledge. Although knowledge levels are higher amongst those who are more engaged with the topic, there is an opportunity to drive greater interest and understanding around childhood immunisation amongst parents.

Unless specified, all general statements in the discussion of research findings in relation to parents' attitudes and behaviours relate to all parent typologies.



## 1.4 Current immunisation status

The vast majority (over nine in ten) of parents claim to have all of their children fully vaccinated, with most indicating that they do so in accordance with the schedule.

Seven in ten parents of children aged 0-5 who are not up to date with all of their children's immunisation schedules are still confident they will have caught up before their child turns five.

Amongst all parents with children aged 0-12, seven in ten see the decision whether to vaccinate or not as 'very easy' and it only really becomes difficult for those who haven't vaccinated any of their children (only 21% of these parents see the decision as 'very easy').

## 1.5 Motivations and barriers to childhood immunisation

Parents' strong support for childhood immunisation is underpinned by the common belief that vaccines are a safe and effective way to prevent the spread of disease but also a way of improving the health of the wider community.

Protection of their own children is the number one motivation to vaccinate amongst those parents who have vaccinated their child(ren). The potential threat of losing government benefits or restrictions on unvaccinated children being unable to start school also plays a role, particularly for the typologies that are more uncertain about immunisation.

There are still some misconceptions about the risk of vaccination versus the diseases themselves and it is these concerns around potential health risks of vaccines (especially the perceived link to autism) that most strongly differentiate the typologies. At least 44% of the 'On the Fence' or 'Rejector' typologies worry about the alleged link between vaccination and autism, compared with only a maximum of 18% amongst the 'Acceptor' typologies.

One of the main concerns for parents is the short-term effects of vaccination such as their children having a reaction to a vaccine or feeling some level of discomfort.

## 1.6 Key influences on parent attitudes and behaviour

GPs and other health professionals play the strongest roles in terms of influencing the majority of parents to vaccinate their children (midwives play a key role with parents of younger children). Seven in ten parents take their GP's advice regarding childhood vaccination without question and don't seek further validation or a second opinion once discussed with their GP.

However, advertising and the media do seem to play a positive role in influencing 'Rejectors' or those who are yet to vaccinate all of their children.

## 1.7 Adherence to the NIP schedule

Although 65% of all parents with children aged 0-12 indicate that they recognise the importance of adhering to the 'exact timing' of the immunisation schedule, there does appear to be a varied interpretation of what this actually means – four in ten of all parents believe 'it doesn't matter' if the vaccine is a few weeks late.

The use of reminder tools appears to help mitigate the issue that some parents experience with remembering vaccination dates and ensuring their children are immunised on time in accordance with the schedule.

The Child Personal Health Book is the most commonly used tool to help parents remember when vaccines are due. Additionally, it's the most effective reminder tool, with 45% of parents whose children were immunised on time citing it as their no.1 source to remind them when their child needs to be vaccinated.

## 1.8 Information sources

Despite varied levels of engagement with the topic of childhood immunisation, most parents (especially first-time parents) still claim to undertake some research prior to deciding whether to

vaccinate or not. Although seven in ten parents take their GP's advice without question and don't seek a second opinion, those who do claim to research the topic have typically done so by the time they consult their GP.

When researching the topic, most parents state they are looking for general information about immunisation although those parents classified as 'On the Fence' or 'Rejectors' have a greater appetite for understanding the potential risks associated with immunisation.

Irrespective of their typology, parents commonly seek information from official sources (including government resources and advice from health professionals) and they recognise the quality of this information over non-official sources (e.g. word of mouth, online articles/forums/blogs, parenting magazines, advertising, anti-vax groups). That said, those parents classified as 'On the Fence' or 'Rejectors' are more likely to seek information from non-official sources relative to 'Advocates' and 'Acceptors'.

Overall, there is a high level of satisfaction with the information obtained about childhood immunisation and it's seen to cater well to parents with children of all ages from 0-12. Those parents in the less accepting typologies ('On the Fence' and 'Rejectors') are comparatively less satisfied with the information they found or received versus 'Advocates' and 'Acceptors' but they generally rate official sources higher than non-official sources of information.

## 1.9 Key findings and potential next steps for parents

- > The largest typologies of parents are 'Strong Advocates', 'Active Acceptors' and 'Passive Acceptors' who largely support childhood immunisation as an effective and safe way of preventing disease.
  - The findings indicate that these typologies would benefit most from messages that simply endorse their behaviour.
- > The 'On the Fence' typologies often have lower levels of perceived knowledge around immunisation. Therefore, there may be an opportunity to strengthen engagement with these audiences to increase their knowledge of the topic as a means of potentially growing support for immunisation and vaccination rates.
- > Overall, childhood immunisation rates are significantly underestimated by parents, highlighting that it may be helpful to share information about actual coverage rates to create a social norming effect.
- > Whilst most parents immunise and find the decision easy, there are some underlying concerns amongst parents of children that have not been vaccinated about the safety of vaccines and in some cases, their effectiveness.
- > There may be value in addressing these concerns and misconceptions so as to reduce their prevalence and the potentially negative impact they may have on immunisation rates.
- > For 'On the Fence' and 'Rejectors' it appears that the loss of government benefits and potential school admission restrictions can play a role in encouraging vaccination.
  - It appears that increased promotion of these policies and the associated consequences is likely to help drive uptake of vaccinations amongst parents in the less accepting typologies.
- > Healthcare professionals, particularly GPs and midwives, play a very positive role across all typologies in educating and influencing parents around immunisation.
  - The findings indicate that encouraging and maximising the role of healthcare professionals as positive influences will help to alleviate any concerns that parents may have.
- > For many parents, remembering when vaccinations are due can be challenging and presents a significant barrier to keeping children up to date with their vaccinations.
  - Prompts or reminder tools are likely to be effective in helping parents stick to the immunisation schedule.

- > Uncertainty and misconceptions persist regarding when vaccinations should be delayed due to a child being sick – almost one in three parents believe a cold is a good enough reason to delay their child being vaccinated.
  - There may be some value in providing some greater clarity around when a child is too sick to be immunised (i.e. the presence of a fever).
- > Most parents are looking for general information about immunisation although there is definitely some appetite for information about specific vaccines and the risks associated with vaccinating, especially amongst those classified as 'On the Fence' or 'Rejectors'.
  - In developing information materials, there may be value in providing more detailed information around specific vaccines and associated risks.

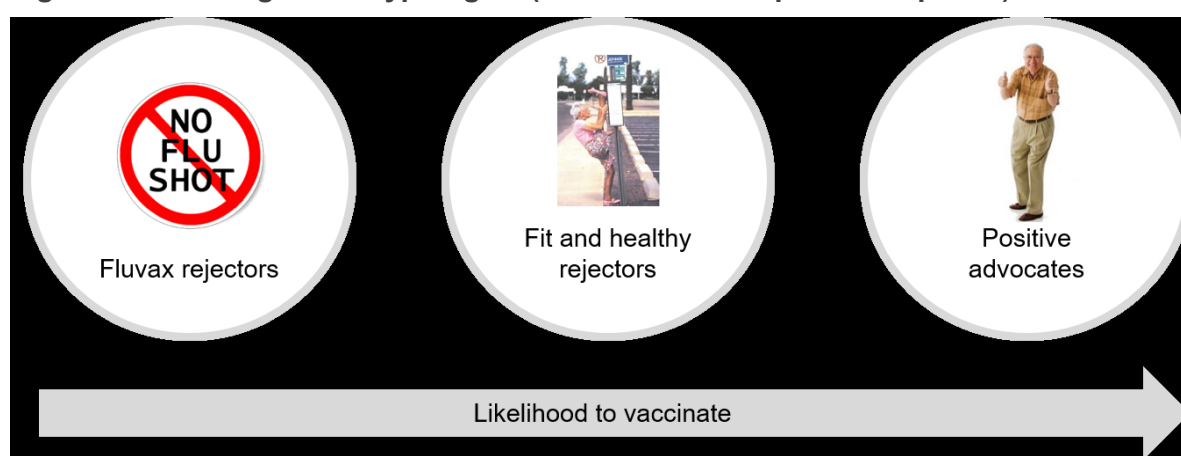
## 1.10 Over 70s typologies

Almost all adults aged 70+ claim to support the concept of immunisation. Most have seen vaccine preventable diseases first hand, and the effects they can have on people and society more broadly. In many cases they have also been witness to the role that immunisation has played in reducing the prevalence or, in some cases, completely eradicating diseases. So, they tend to be very strong supporters of immunisation, particularly childhood immunisations against serious diseases.

When it comes to immunisation and their own health, adults aged over 70 tend to see immunisation as being entirely about the flu vaccine. The vast majority are aware that they can get the flu vaccine for free and that they are generally encouraged to do so. As such, the flu vaccine tends to be the main reference point for this group when they think about immunisation for themselves.

When it comes to the flu vaccine attitudes are varied, and those aged over 70 years can be split into three main attitudinal groups based on the qualitative research<sup>3</sup> undertaken with this audience:

**Figure 2. Adults aged 70+ typologies (identified in the qualitative phase)**



Based on the findings from the qualitative research, a statement was developed to describe each of the different typologies as per Table 2 below. As part of the quantitative survey, adults aged 70+ were asked to select which one of the three statements best described their personal opinions about vaccination against flu. Based on their selection, they were then classified accordingly.

**Table 2. Typologies amongst adults aged 70+ (statements from the quantitative phase)**

TYPOLGY	STATEMENT
<b>Positive Advocates</b>	I am strongly in favour of vaccination and try to take any vaccination that I am entitled to. I don't want to get sick and see vaccination against flu as a sensible way to prevent illness. Vaccination is a responsible thing to do to stop the spread of diseases like flu.
<b>Healthy Rejectors</b>	Vaccination against flu is not relevant to me as I am fit and healthy and don't tend to get sick very often. It is more relevant to people who are older than me, more frail or vulnerable.
<b>FluVax Rejectors</b>	I don't want the flu vaccine. In my experience people who receive the flu jab end up getting sick – either from the vaccination itself or because it simply doesn't work.

Support for immunisation in general amongst older Australians is even stronger than that of parents with kids 0-12, with less than one in twenty adults aged 70+ opposed to immunisation. Whilst this strong support for immunisation in general is reflected in the vast majority of adults aged 70+ classifying themselves as 'Positive Advocates' in relation to the flu vaccine, there are one in six of this age group who don't see the flu vaccine as necessarily being for them.

All general statements in the over 70s section relate to all typologies unless specified.

<sup>3</sup> Research to identify immunisation needs, Qualitative Research Report, August 2016.

### 1.11 Current vaccination status and motivations to vaccinate

In line with the size of the 'Rejector' groups of parents, only around one in six Australians aged 70+ claim not to be vaccinated against influenza.

Protection of their own health is the primary motivator for Australians aged 70+ to be vaccinated and there is considerable weight placed on recommendations received from their GP or health professional.

### 1.12 Attitudes towards vaccinations

Adults aged 70+ are generally very supportive of the NIP with eight in ten saying they have a high level of trust in the government's vaccination program; even more than half of 'Healthy Rejectors' trust the program.

Over 70s also view vaccinations as being relatively low risk, a view that's shared even amongst FluVax Rejectors.

### 1.13 Information sources and influencers

GPs are the most common source of information for all three typologies of Australians aged 70+. 'FluVax Rejectors' are more likely than the other typologies to obtain some of their information online and seek justification as to why people decide whether to vaccinate or not.

In terms of the information they obtain about immunisation, Australians aged 70+ are generally very satisfied, especially with government sources and the advice/information from health professionals. The latter is perceived to be particularly easy to understand, trustworthy and well-researched.

### 1.14 Key findings and potential next steps for over 70s

- > Over 70s have a strong level of support for immunisation overall, and generally find it an easy decision to be immunised (or not) against the flu, pneumonia, shingles or whooping cough.
  - Indications are that most over 70s would benefit from messages that endorse their decision to vaccinate themselves in line with the NIP.
- > Although (claimed) vaccination levels for over 70s are relatively high, this is predominantly focussed on the influenza vaccination.
  - Increasing communications around the importance of vaccination/safety risks associated with other vaccines covered by the NIP should therefore be considered.
- > One in ten over 70s feel that it isn't necessary for them to get the flu vaccine if they are healthy - this is the most common barrier for those not vaccinated.
  - For older Australians, there may be value in messages aimed at helping to persuade current 'Healthy Rejectors' to vaccinate.
- > GPs and other health professionals are the most common and influential source of information for Australians aged 70 or over. However, with more than a third of this target audience stating that they don't think they need to be immunised (against flu, pneumonia, shingles or whooping cough) or that they do not get sick, some over 70s may not see their GP regularly enough to receive this message.
  - As such, consideration should be given to the use of other channels to communicate to 'Healthy Rejectors' and 'FluVax Rejectors' (e.g. through online press articles and SEO).

## 2. BACKGROUND

### 2.1 Overview

Australia has one of the most comprehensively publicly funded immunisation programs in the world.

As a result of successful vaccination programs, many diseases such as diphtheria and poliomyelitis either no longer occur or are extremely rare in Australia. Vaccination not only protects individuals but also protects entire communities by increasing overall levels of immunity and thereby minimising the spread of infection. Immunisation is a successful and cost-effective health intervention.

The National Immunisation Program (NIP) schedule of recommended vaccines currently includes vaccines against a total of 17 diseases. Vaccines on the schedule are available for infants, children, young adults, vulnerable adults (such as Aboriginal and Torres Strait Islander people and pregnant women) and older people. Each State and Territory is responsible for delivering the Program under the National Partnership Agreement on Essential Vaccines (NPEV).

This research summarised in this report was carried out amongst two separate target audiences, parents of children aged 0-12 and adults aged 70+. The research was designed to focus solely on the immunisation components of the NIP schedule as they relate to children and adults aged 70+. Whilst the research amongst adults aged 70+ included their views on immunisation in general, it primarily focused on the influenza vaccination.

#### **Broad attitudes and behaviour in relation to immunisation from qualitative research**

Uptake of vaccination in Australia is generally high, however, it cannot be assumed that all Australians are in favour of it or comply fully with the NIP schedule. Qualitative research conducted by Snapcracker on behalf of the Department of Health in 2016 amongst parents of children aged 0-12 and other adults aged 70+, found that Australians' concerns about immunisation predominantly relate to safety. This research indicated that some people are now more concerned about the vaccines themselves than the diseases they prevent.

The qualitative research also highlighted that the general public perceive immunisation to be a topic that largely relates to children – even among adults who themselves are eligible for free vaccines under the NIP. Health professionals also see the 'issues' around immunisation as primarily relating to children.

Parents generally see that parenting is an exercise fraught with judgement by the wider community, and immunisation is felt to be a fundamental part of that. Additionally, there is a clear sense that immunisation as a topic is viewed in relatively black-and-white terms by the community, with very strong views at either end of the spectrum. As a result, the topic is felt to be quite emotional and many prefer not to talk openly about it as a result.

Perceived levels of childhood vaccination within the community tend to be much lower than they are, with some believing that rates hover at around 60 per cent. Upon learning that the rates were in fact higher, in fact generally above 90 per cent, most parents feel quite reassured.

The vast majority see on-time vaccination as being quite important, although there are differing interpretations of what 'on-time' means. Some believe that you will still be on-time provided immunisations are given within three or four weeks after the due date, while others don't delay a vaccination appointment by more than a few days. There is little evidence of vaccinating before the due date.

Perceptions of diseases can have a significant impact on how vaccines are perceived. Many vaccine preventable diseases are relatively unknown in practical terms, with exceptions being whooping cough, chickenpox and flu. Diseases which are unknown are often seen in the abstract, meaning that concerns about the vaccine can outweigh concerns about the disease. For diseases that are perceived to be relatively minor (such as chickenpox) there can be a sense that the vaccine is not really necessary.



The tone of conversation around immunisation is felt to be quite negative, with focus drawn to a 'debate' about vaccination, and little focus on the inherent benefits. Concerns about vaccine safety tend to dominate the discussion, and there tends to be a lot of negative emotion around the topic overall. It seems that the introduction of *No Jab, No Pay* has further added to this sense for some parents, by creating a punitive layer around the topic. However, it has also served to persuade some of the previous 'fence-sitters' or even objectors to have their children vaccinated.

The qualitative research also identified a range of barriers that exist regarding immunisation uptake in Australia. These barriers may be philosophical - relating to attitudes, lifestyle or religious beliefs – as well as those more practical in nature, such as time constraints, lack of access (e.g. low-income parents having to rely on public transport) and financial limitations.

While there is considerable diversity across the two different audiences, there are some commonly held expectations about the characteristics of information about immunisation: that information be factual and well-researched, balanced and impartial, use accessible language and be up-to-date.

Depending on the level of audience engagement, there is a range of different levels of detail required. Some require virtually none, while others seek only key headline messages. Others prefer to get some detail underneath the headline messages, while others seek a far more comprehensive level of detail including those who wish to review scientific journal articles.

The qualitative research identified a range of different typologies within the two key audiences of parents of children aged 0-12 as well as other adults aged 70 years and over. These are outlined below.

#### Typologies identified among Parents of children aged 0-12 years old

- > **STRONG ADVOCATES** – highly accepting, highly engaged and are identifiable by their willingness to advocate for immunisation;
- > **ACTIVE ACCEPTORS** – engaged and accepting, have determined that immunisation is the right choice for their family;
- > **PASSIVE ACCEPTORS** – not particularly engaged, but accept immunisation as 'the thing that you do' based on the expert advice of health professionals;
- > **CAUTIOUS CONSIDERERS** – less accepting of immunisation, and not overly engaged with it, although they do have 'niggles' that can prevent them from fully immunising their children;
- > **NATURALISTS** and **EXTREME NATURALISTS** – a preference to live their lives as naturally as possible, hence less interest in the topic of immunisation. Notably, their decision *not* to immunise is often based on quite a positive frame of mind;
- > **WORRIERS** and **EXTREME WORRIERS** – characterised by anxiety about the potential for misadventure due to immunisation, to varying levels; and
- > **OUTRIGHT REJECTORS** – tend to exist on the fringes and often see immunisation as a conspiracy hatched by governments and the pharmaceutical industry.

#### Typologies identified among adults aged 70 years and over

Whilst the broader survey captured the perspectives of adults aged 70+ in relation to immunisation in general, this audience were asked which of the following three statements best described them personally in relation to the influenza (flu) vaccine:

- > **POSITIVE ADVOCATES** - very open to the idea of the flu vaccine and are often those 'waiting in line' for the GP to receive the first shipment of the vaccine for the season;
- > **HEALTHY REJECTORS** - prefer to see themselves as healthy, active adults and as such reject the idea of the flu vaccine as it is for 'frail old people'; and

- > **FLU VACCINE REJECTORS** – specifically reject the flu vaccine due to concerns about the vaccine itself – either because it is believed to cause flu, or not be especially effective at preventing it.

Their response to this question formed the basis of their classification in the segmentation.

## 2.2 The need for research

The Department identified a need for quantitative research in two broadly separate areas that relate to immunisation.

There was a need to validate findings from the large-scale qualitative research conducted into attitudes and behaviours toward immunisation by Snapcracker on behalf of the Department of Health in 2016. In particular, there was a need to further size the qualitative typologies that were identified in the research.

Outputs of this research will be used to inform communications activities, resourcing and policy decisions relating to immunisation in Australia.

A second survey was conducted in parallel by Snapcracker on behalf of the Department regarding attitudes and behaviours toward the seasonal influenza vaccine. The findings of this research can be found in a separate report.<sup>4</sup>

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<sup>4</sup> *Community Attitude Research on Flu Vaccination, Quantitative Research Report. July 2017*



### 3. RESEARCH OBJECTIVES

#### 3.1 Quantifying key findings and typologies from the qualitative research

The objective of this component of research was to validate and quantify the findings of the qualitative research with parents of children aged 0-12 years and adults aged 70+.

The qualitative research suggested that the numbers of less-accepting typologies including Cautious Considerers, Naturalists, Extreme Naturalists, Worriers, Extreme Worriers and Outright Rejectors were actually quite small in proportion to the other, more accepting, typologies.

A key element of the quantitative research was sizing the prevalence of the attitudes and behaviour among the target populations, including the typologies identified from the qualitative phase. Allocation of respondents to typology was based on self-classification using statements developed from the qualitative research.

## 4. OVERVIEW OF RESEARCH APPROACH

Whilst there is some consistency between the two target audiences (parents of children aged 0-12 and adults aged 70+) in terms of the immunisation topic areas covered in this research, given their different life stage, it was clear that two separate studies were required.

Snapcracker was engaged by the Department to undertake and manage the research. Snapcracker subcontracted Nature to provide the quantitative technical expertise for this project.

### 4.1 Quantifying key findings and typologies from the qualitative research

Quantitative interviews for this component were as follows:

- > n=1,200 15-minute online interviews with parents of children aged 0-12 years split:
  - children aged 0-5 years n=872 (minimum quota of n=800);
  - children aged 6-12 years n=328 (minimum quota of n=300);
  - Australia wide coverage, nationally representative based on location; and
  - data was post-weighted to achieve a 50:50 male/female parent balance.
- > n=600 15-minute online interviews with adults aged 70 years+:
  - Australia wide coverage, nationally representative based on location.
- > Fieldwork for both studies took place between 8 – 21 March 2017.

**Table 3. Sample profile – Parents of children aged 0-12**

	Total sample (Parents of children aged 0-12)	Parents of kids aged 0-5	Parents of kids aged 6-12
	%	%	%
<b>Male</b>	50	49	51
<b>Female</b>	50	51	49
<b>Under 18</b>	0	0	0
<b>18-24</b>	4	5	2
<b>25-29</b>	9	15	2
<b>30-34</b>	18	25	9
<b>35-39</b>	20	25	14
<b>40-44</b>	21	17	26
<b>45-49</b>	17	7	30
<b>50-54</b>	6	3	10
<b>55-59</b>	3	1	5
<b>60-64</b>	1	1	2
<b>65+</b>	1	1	1
<b>Aboriginal or Torres Strait Islander (ATSI)</b>	4	5	3
<b>Culturally and linguistically diverse background (CALD)</b>	22	25	18

**Table 4. Sample profile – Adults aged 70+**

Adults aged 70+	
	%
<b>Male</b>	50
<b>Female</b>	50
<b>70-74</b>	58
<b>75+</b>	42
<b>Aboriginal or Torres Strait Islander (ATSI)</b>	1
<b>Culturally and linguistically diverse background (CALD)</b>	10

## DETAILED FINDINGS

## 5. FOCUS ON PARENTS

The findings for the smaller typologies have been grouped together for the majority of this report. However, there are certain points where it is necessary to report on the individual segments to highlight differences compared with other typologies.

Please note also that any figures of 2% or less have been removed from the graphs or charts shown in this report for the purpose of clarity.

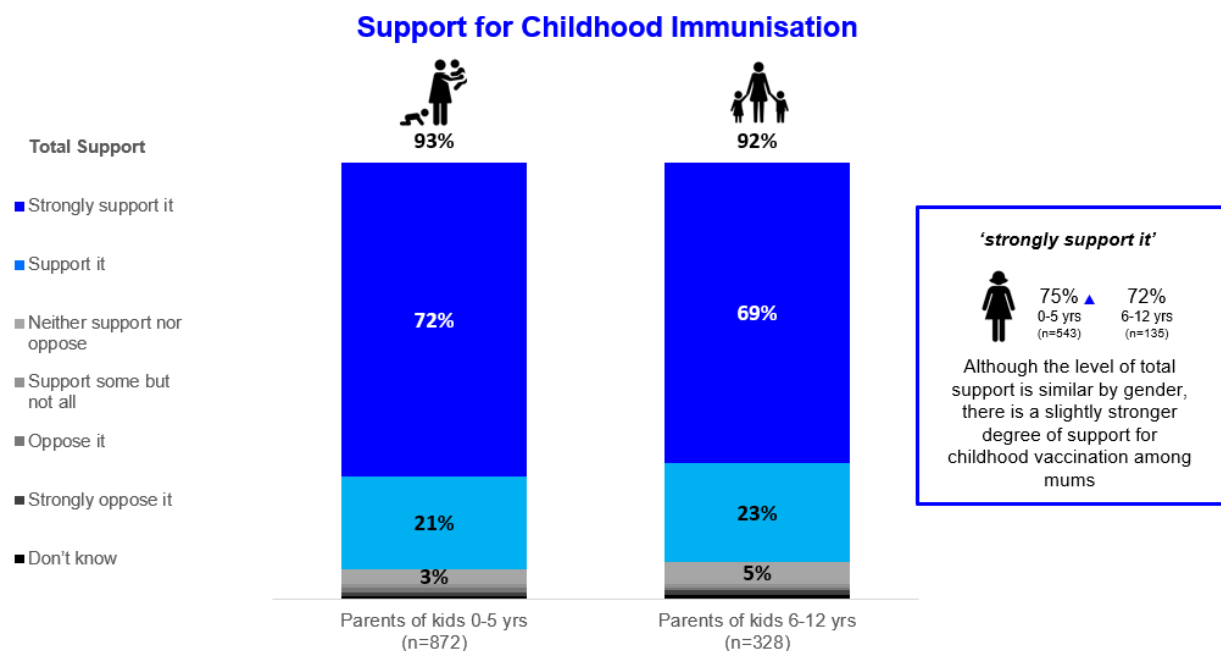
### 5.1 Parent typologies (support, knowledge & engagement)

Overall, support for childhood immunisation is almost universal amongst parents, irrespective of the age of their children.

**Figure 3. Support for Childhood Immunisation**

QA1a. Overall, how do you feel about childhood immunisation?

Overall support for childhood immunisation is almost universal among parents, irrespective of the age of their children



▲ ▼ Significant difference at 95% confidence

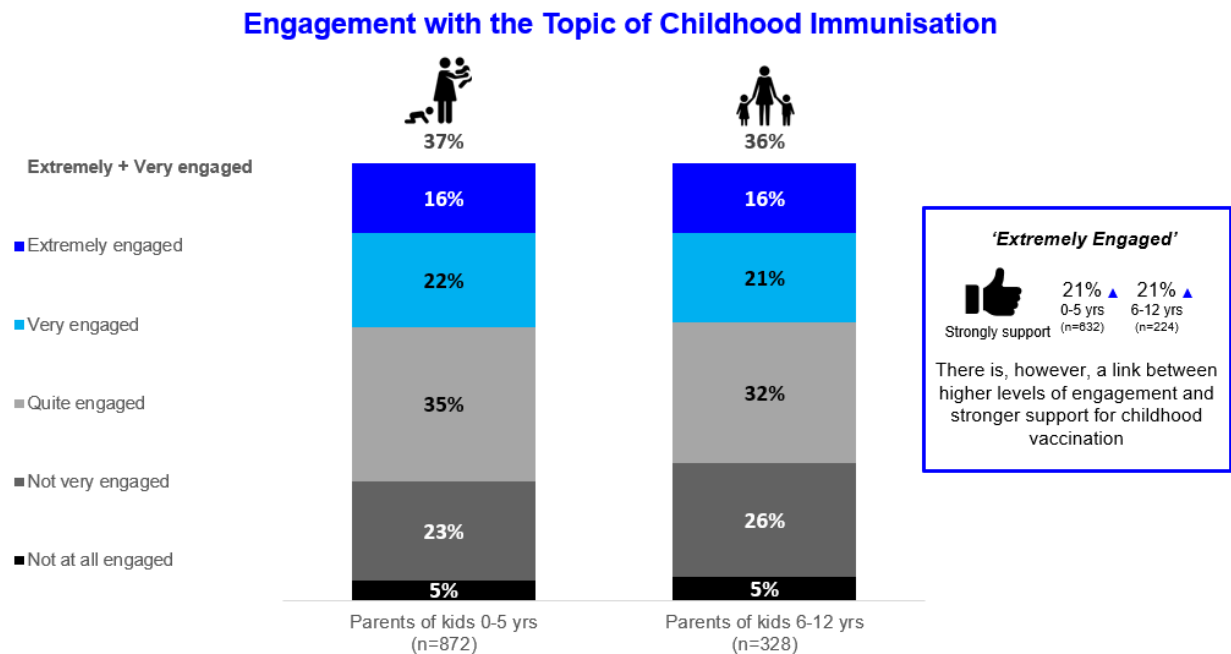
Base: All parents (n=1,200). With kids aged 0-5 years (n=872); with kids aged 6-12 years (n=328)

Despite high levels of support for childhood immunisation amongst parents, their level of engagement with the topic is somewhat varied - just over a third claim to be 'extremely or very engaged' whilst only slightly fewer parents claim to be 'not very or not at all engaged'. There is also evidence to suggest that a proportion of 'Rejectors' are engaged with the topic of immunisation (48% extremely or very engaged) and claim to be knowledgeable about the topic (72% very good or good knowledge).

**Figure 4. Engagement with the Topic of Childhood Immunisation**

*F2. How engaged are you with the issue of childhood vaccination? By engaged, we mean the extent to which you are interested in the topic, seek out information, think about it and talk about it with others.*

Despite high levels of support for immunisation, engagement with the topic among parents is quite varied



▲ ▼ Significant difference at 95% confidence

Base: All parents (n=1,200). With kids aged 0-5 years (n=872); with kids aged 6-12 years (n=328)

In terms of knowing which diseases their children have been vaccinated for, four in ten parents rate their knowledge as fair, poor or very poor. There is a clear positive correlation between engagement with the topic and knowing which diseases their children have been vaccinated against. Parents are significantly more likely to rate their knowledge regarding immunisation as 'very good or good' if they are 'extremely engaged' in the topic.

**Table 5. Immunisation Type Knowledge**

*G3. How would you rate your knowledge of which diseases your child has been vaccinated for?*

	Parents of kids aged 0-5	Parents of kids aged 6-12
<b>Top 2 Box (Very good + good)</b>	<b>60%</b>	<b>61%</b>
Very good	20%	21%
Good	40%	40%
Fair	31%	32%
Poor	7%	6%
Very poor	1%	1%

Base: All parents (n=1,200). With kids aged 0-5 years (n=872); with kids aged 6-12 years (n=328)

Parents were asked to select which one of the following typologies most closely described them personally. The vast majority of parents fall into the typologies that were in favour of vaccination with very few differences according to the age of their children.

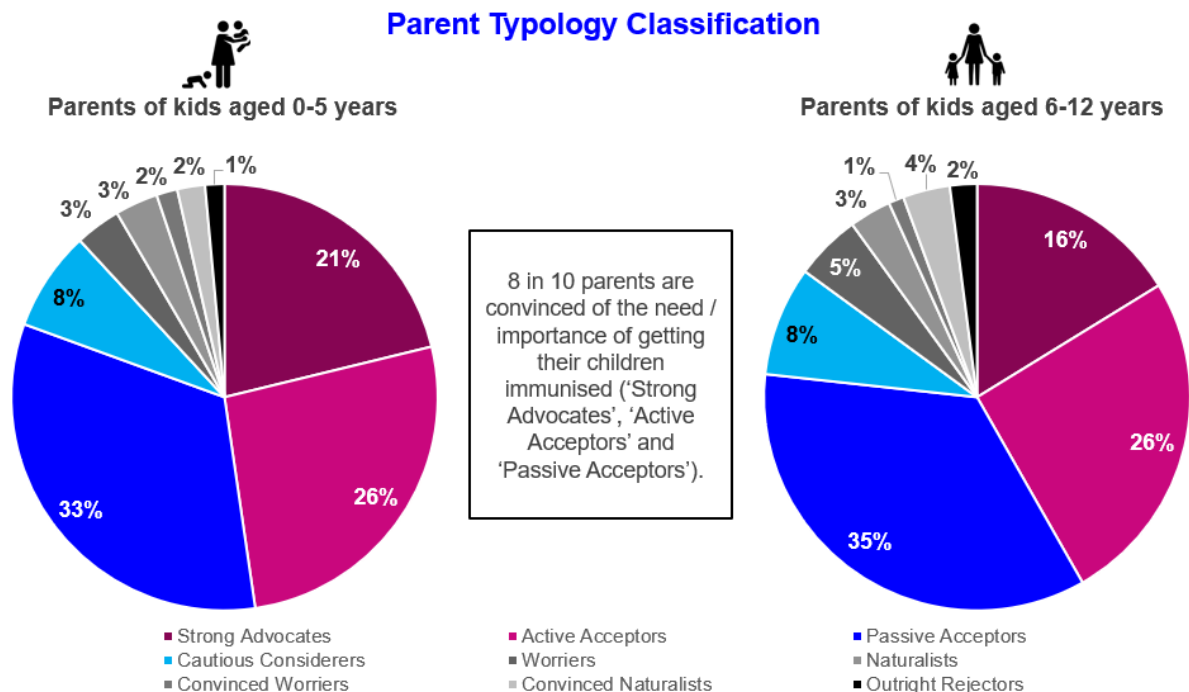
**Table 6. Parent Typologies**

*F1. Please select the statement that most closely describes your personal opinions about childhood vaccination.*

TYPOLOGY	STATEMENT
<b>Strong Advocates</b>	I am strongly in favour of childhood vaccination. I have done a lot of research and have a good understanding of the issues. I am comfortable sharing my views and will try to persuade others to change their opinions of vaccination if they are against it.
<b>Active Acceptors</b>	I am in favour of childhood vaccination. I have done a bit of research from which I feel well enough informed to be comfortable in my choices. I don't go out of my way to talk about it but am happy to discuss with others if the topic comes up.
<b>Passive Acceptors</b>	I am in favour of childhood vaccination and see it simply as something you have to do for your children. I don't tend to think about it much, beyond making the necessary appointments. I trust the healthcare system to do the right thing and don't feel the need to understand all the details.
<b>Cautious Considerers</b>	I am not against childhood vaccination, but I do worry a bit about things that could potentially go wrong. I haven't done a lot of research into the subject. I would like to feel reassured that it is okay for my children.
<b>Worriers</b>	I don't really know where I stand on childhood vaccination. On the one hand, I can see the benefits for my children, but at the same time I worry a lot about the risk of something going wrong. Because of this I like to know all the details of any vaccination that my child receives. Thinking about it makes me feel anxious.
<b>Naturalists</b>	While I sometimes think vaccination is right, I prefer not to over medicalise my children and look for alternative approaches to medicine and wellbeing as far as I can.
<b>Convinced Worriers</b>	I do not believe in childhood vaccination. There are far too many risks involved that I believe outweigh the benefits. I do a lot of reading on the subject and am horrified by the personal reports of negative experiences. For these reasons, I tend to warn others against having their children immunised.
<b>Convinced Naturalists</b>	I am opposed to childhood vaccination and pharmaceutical medicine in general. I try to live a natural life and encourage my children to do the same. We avoid artificial foods and substances and instead use natural remedies.
<b>Outright Rejectors</b>	I am strongly opposed to childhood vaccination. It is nothing more than propaganda designed to control the population and only serves the interests of politicians and pharmaceutical companies, not the people. I don't often share my views with others as they may react badly.

**Figure 5. Parent Typology Classification**

The vast majority of parents fall into the typologies more in favour of vaccination, with very few differences according to the age of children



▲ ▼ Significant difference at 95% confidence

Base: All parents (n=1,200). With kids aged 0-5 years (n=872); with kids aged 6-12 years (n=328)

Looking within the typologies, Passive Acceptors (the largest typology for both age groups) show signs of unwavering support (99%) for childhood immunisation despite their relative lack of engagement with the topic (41% 'not very or not at all engaged') and slightly lower level of claimed knowledge about their children's vaccinations (53% 'very good or good' compared with 61% of all parents).

Amongst parents in typologies who are somewhat hesitant about childhood immunisation, namely Cautious Considerers and Worriers, it seems their indecision and anxiety stems from a perceived lack of knowledge around the topic (less than half of parents in these typologies claim to have very good or good knowledge). Those with a strong negative viewpoint towards childhood immunisation feel that this is founded on good levels of knowledge around the subject.

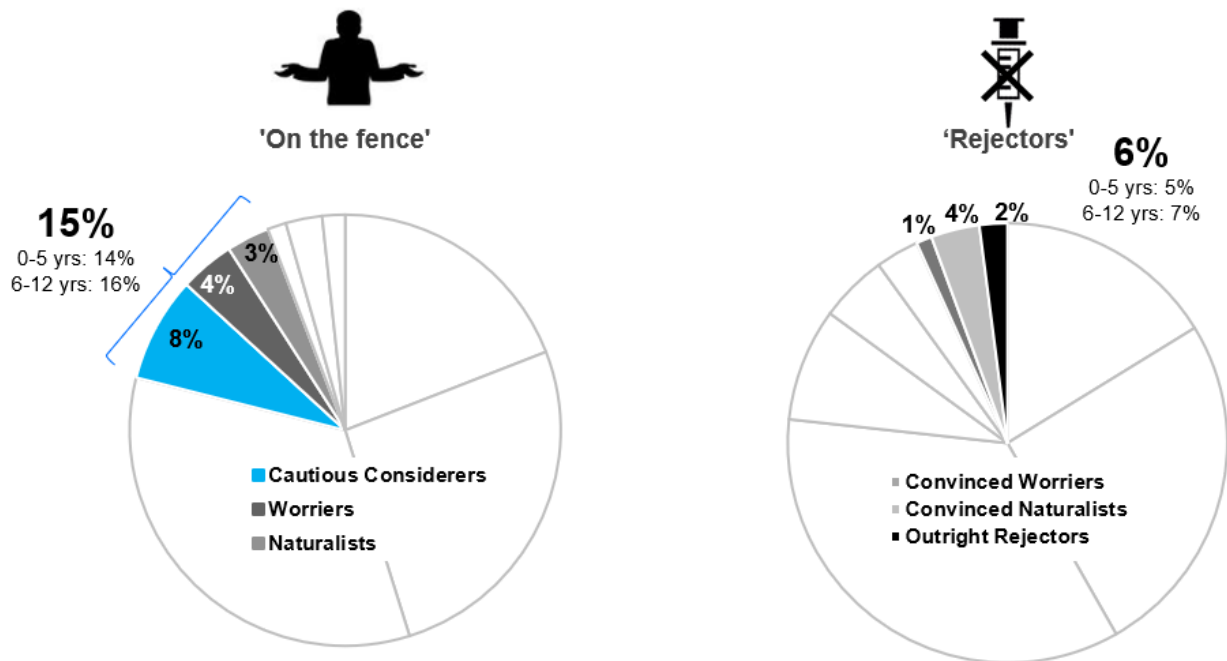
Please note that sample sizes for the less accepting typologies can be very low so please exercise caution when interpreting differences between individual segments.



Please note that findings for the smaller typologies have been grouped together throughout the remainder of this section of the report as per the details in Figure 6 below.

Figure 6. Smaller Typology Groupings

Findings for smaller typologies have been grouped throughout the report



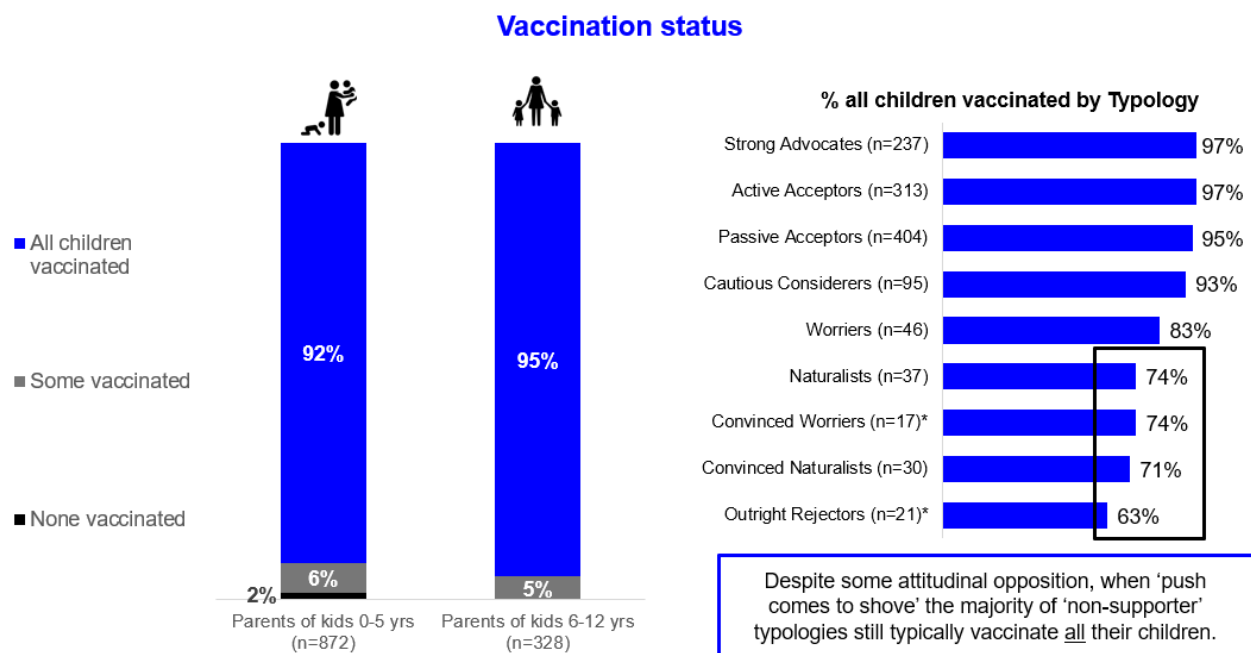
## 5.2 Current Immunisation Status

Overall, stated vaccination levels are very high with nine in ten parents in both age groups claiming to have vaccinated all of their children and only a very small proportion claiming to have not vaccinated any of their children. Interestingly, at least six in ten parents of those typologies who would be classed as 'non-supporters' of childhood immunisation still claim to have vaccinated all of their children.

**Figure 7. Vaccination Status**

A2. Have your children been immunised?

Over 9 in 10 parents claim to have vaccinated all their children with only a very limited proportion not vaccinating at all



▲ ▼ Significant difference at 95% confidence

Base: All parents (n=1,200). With kids aged 0-5 years (n=872). With kids aged 6-12 years (n=328).

Considering 93% of parents of children aged 0-12 claim all of their own children are vaccinated, it's surprising that parents estimate only 72% of children across Australia to be fully vaccinated.

Nine in ten parents found the decision whether to vaccinate their child(ren) or not was 'very easy' or 'easy', with no discernible difference based on the age of their children. However, those who haven't vaccinated any of their children found it to be a considerably tougher decision with similar proportions rating it 'very easy' or 'easy' (36%) or 'very difficult' or 'difficult' (38%).

When asked if any of their children had ever been immunised after the recommended time in the vaccination schedule, there is evidence to suggest that parents of younger children (0-5) are slightly more likely to immunise some or all of their children later than the recommended time (22% for parents of children 0-5 vs. 17% for parents of children 6-12). However, the majority of parents claim to be up to date with all of their children.

Most parents (74%) are confident in their ability to ensure that all of their children are fully vaccinated in accordance with the schedule by the time they turn five. Whilst the likelihood of their children being fully vaccinated by the age of five drops off among parents who aren't currently on schedule, the majority intend to catch up.

### 5.3 Motivators and barriers to childhood immunisation

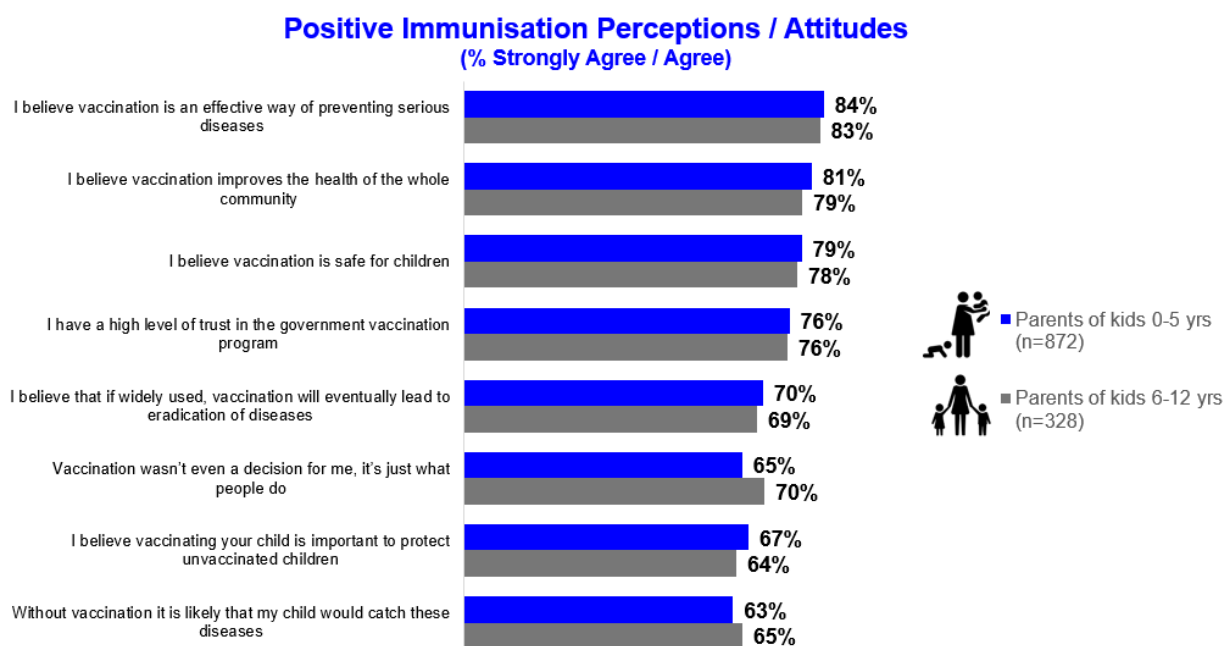
Overall, parental support for childhood immunisation appears to be driven by a common belief that it is an effective and safe way of preventing disease. Childhood immunisation is also generally viewed as being beneficial to the health of the wider community.

In terms of barriers to childhood immunisation, these centre around two specific areas. Firstly, parental concerns about their child(ren)'s safety and discomfort in relation to vaccines (e.g. concerns about the possible side effects of the injection, long term risks, safety of the vaccines, the dose being too much for a small child/baby). Secondly, some misconceptions (e.g. that the disease can be caught from the vaccine, the risk of vaccination seems to be worse than catching the disease, vaccination is only encouraged because of pressure by pharmaceutical companies) that are held by roughly one in five parents.

**Figure 8. Positive Immunisation Perceptions/ Attitudes**

QG1. Below are some beliefs that parents may have about childhood immunisation and vaccines. Please indicate how strongly you agree or disagree with each statement. QH1. Please indicate how strongly you agree or disagree with each of the statements below.

Parental support for childhood immunisation appears to be driven by a common belief that it is an effective and safe way of preventing disease



▲ ▼ Significant difference at 95% confidence

Base: All parents (n=1,200). With kids aged 0-5 years (n=872). With kids aged 6-12 years (n=328).

When it comes to the perceived importance of different childhood vaccines, with the exception of the influenza (flu) vaccine (56% 'very important'), at least seven in ten parents perceive all of them to be 'very important'.

Protection of their children is clearly the number one driver for parents to vaccinate, with almost two-thirds stating this as their main reason. Other factors driving their decision include protection of the community, the threat of losing government benefits or making sure their children can start pre-school/school. The potential loss of government benefits or restrictions on their children being able to start school play a more influential role amongst 'Rejectors' and 'On the Fence' typologies (8-21% for these typologies) than those typologies who are more accepting of immunisation generally (Less than 5% for the more accepting typologies - refer to the blue box in Table 2 below).

**Table 7. Main reasons for vaccinating by typology**

*D1b. What is the main reason for having your children immunised?*

The loss of Government benefits / school start restrictions play a more influential role among 'Rejectors' and those 'On the fence'

**Main reason for vaccination by Typology**

	Strong Advocates	Active Acceptors	Passive Acceptors	Cautious Considerers	Worriers	Naturalists	'Rejectors'
N=	230	302	398	85	40	31	56
To protect my child from these diseases	56%	68% ▲	70% ▲	59%	55%	48%	16% ▼
I philosophically think it is the right thing to do	9%	5%	10% ▲	2% ▼	0%	7%	7%
To protect the community from these diseases	11% ▲	6%	5%	4%	7%	10%	5%
It's expected, it's just what you do	7%	6%	6%	10%	6%	8%	10%
To protect newborns	5%	3%	2%	6%	0%	10%	10% ▲
It makes me feel like I am being a good parent	3%	4%	2%	2%	4%	6%	8% ▲
So that my child can start school	2%	2%	1%	6%	6%	0%	8% ▲
A health professional told me to	2%	2%	1%	2%	5%	2%	11% ▲
We need a certain level of coverage vaccination to work	3%	2%	1% ▼	0%	3%	0%	10% ▲
To ensure I am eligible for childcare benefits	1%	0% ▼	1%	1%	13% ▲	0%	11% ▲
So that my child can start pre-school	0%	1%	1%	5% ▲	2%	6%	2%
To obtain gov't payment when my child is fully immunised	0%	1%	0%	4% ▲	0%	3%	0%
Gov't benefits / school start restriction (NET)	4%	4%	3% ▼	15% ▲	20% ▲	8%	21% ▲

▲ ▼ Significant difference at 95% confidence

Base: All parents with vaccinated children (n=1142)

## 5.4 Barriers to vaccinating and misconceptions

There are some concerns amongst parents, around four in ten, in relation to childhood immunisation and the most common areas of concern centre around immediate reactions to vaccines and potential discomfort for their children. These two areas are consistently amongst the greatest concerns across all typologies. Parents in WA show a greater level of concern in both of these areas (57% and 52% respectively) and also in terms of vaccines containing ingredients which could have long term impacts on their children's health (24%).

There are also several misconceptions around vaccines that are held amongst roughly one in five parents:

- > that the disease can be caught from the vaccine;
- > vaccines are only encouraged due to pressure from pharmaceutical companies;
- > the risk of vaccination seems to be worse than the disease; and
- > a belief that vaccinations can weaken the immune system.

The key barriers that prevent parents, who have had some or none of their children vaccinated, from vaccinating their children in accordance with the schedule essentially come down to parental concerns around their children's safety (refer to the points highlighted in the green boxes in Figure 8). The main 'safety' barrier is a concern around the possible side effects of the actual injection, which is consistent with the concerns discussed above. The next tier of safety concerns focuses around potential long-term risks, waiting for their children to be older and have stronger

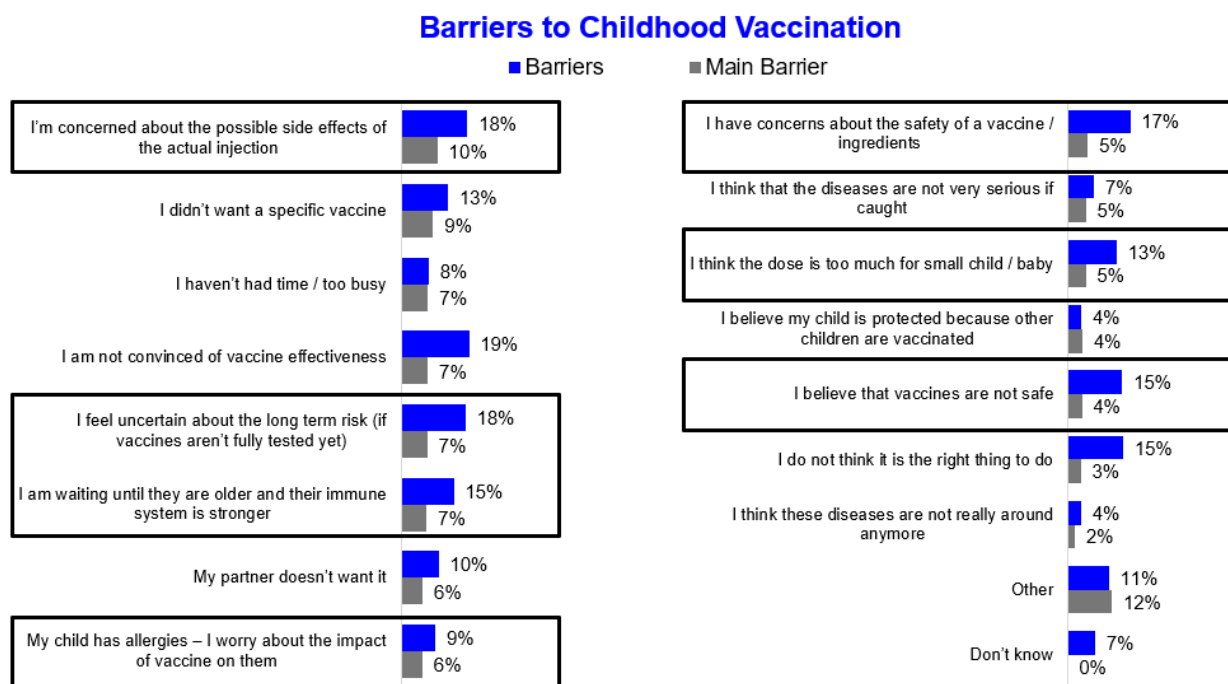
immune systems and the impact on children with allergies. The other safety concerns relate to the vaccine ingredients, general safety of vaccines and size of the dosage for small children/babies.

With the exception of 'I am waiting until they are older and their immune system is stronger', which is the primary barrier to vaccination for Acceptor/Advocate parents, all of the other parental safety concerns are higher (albeit not significantly) amongst the 'One the Fence' and Rejector' typologies.

**Figure 9. Barriers to childhood vaccination**

*D3a. Why have your children not had all the vaccinations according to the schedule? Why have your children not had any vaccination?*

Taken together, the key barriers to childhood vaccination essentially boil down to parental concerns about the safety of their children



▲ ▼ Significant difference at 95% confidence

Base: Parents with some or no children vaccinated (n=86)

The concerns around impact on health (such as the potential link to autism) vary greatly across the different typologies but there is a clear pattern that shows the level of concern grows the less someone supports the idea of childhood immunisation. At least 46% of 'Rejectors' and at least 44% of those parents classified as 'On the Fence' worry about the alleged link between vaccination and autism compared with a maximum of 18% amongst 'Advocates' and 'Acceptors'.

**Table 8. Vaccination concerns by typology**

D8. Following are some statements that other parents have made in relation to getting their children vaccinated. Please indicate the extent to which you agree or disagree with each statement.

Concerns around the impacts to health and links to autism are different across the typologies

Vaccination Concerns by Typology (% Strongly Agree / Agree)									
	Strong Advocates	Active Acceptors	Passive Acceptors	Cautious Considerers	Worriers	Naturalists	Convinced Worriers	Convinced Naturalists	Conspiracy Theorists
n=	237	313	404	95	46	37	17	30	21
I am not sure how safe the vaccinations are	12% ▼	21%	13% ▼	49% ▲	59% ▲	57% ▲	49%	62% ▲	54%
I worry about the alleged link between vaccination and autism	14% ▼	18%	11% ▼	44% ▲	53% ▲	49% ▲	46%	60% ▲	62%
I worry that vaccinations could weaken my child's immune system	13% ▼	14% ▼	10% ▼	32% ▲	48% ▲	48% ▲	66%	64% ▲	50%
I worry that my child could catch the disease from the vaccination	14% ▼	15% ▼	12% ▼	31% ▲	51% ▲	29%	38%	68% ▲	52%
I think the vaccination would be expensive	17%	14% ▼	15%	24%	29%	23%	57%	41% ▲	49%
I think that it would take a lot of time	17%	11% ▼	10% ▼	12%	21%	23%	41%	42% ▲	49%

▲ ▼ Significant difference at 95% confidence

Base: All parents (n=1,200)

## 5.5 Key influences on parent attitudes and behaviour

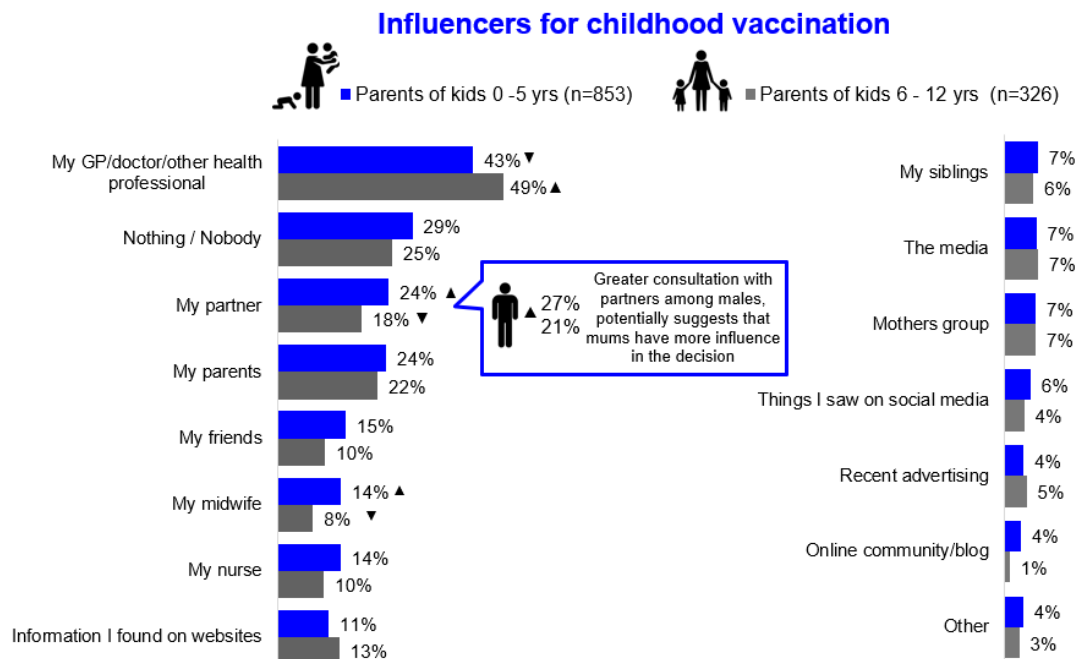
Health professionals play a key role in terms of influencing parents to have their children vaccinated, with GPs being the most prominent influence whilst midwives play more of a role with those who have younger children. The extent of health professionals' influence is even more marked when comparing those who have vaccinated all of their children (46% influenced by GP/other health professional) against those who have only vaccinated some of their children (29%), highlighting that they are generally providing a positive influence in the decision-making process.

Family and friends form the second tier of influencers (behind health professionals) for parents, especially amongst dads who are more likely to be influenced by their spouse or partner which suggests that mums play a greater role in the decision to vaccinate.

**Figure 10. Influencers for childhood vaccination**

*D2. Which, if any, of the following influenced you to have your child vaccinated?*

Health professionals play a key influencing role for parents – GPs are most prominent, though midwives also play a large role among parents of younger children



▲ ▼ Significant difference at 95% confidence

Base: All parents with vaccinated children (n=1179) / Males (0-5 years n=329) (6-12 years n=193)

GPs and other health professionals are also seen as a trustworthy influence on parents' decision to vaccinate as the majority (69%) take their advice without question. Only 28% of all parents claim they sought a second opinion or further information after seeing their GP/other professional; this rises to 45% amongst those who are in a mothers'/parents' group, which is likely to expose them to a variety of different opinions and experiences that could prompt the need for further advice.

Whilst the media isn't a significant influencer for all parents, 'Rejector' parents are far more likely to be influenced by the media and recent advertising when it comes to deciding whether to vaccinate their children or not.



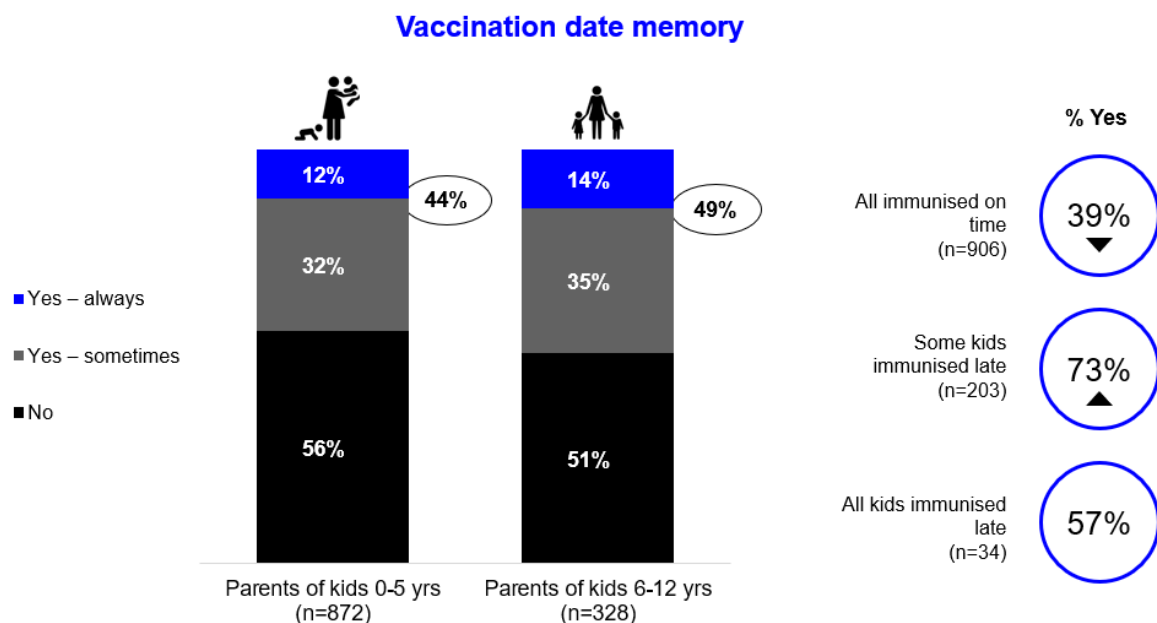
## 5.6 Adherence and attitudes to the NIP schedule

Almost half of parents with children aged 0-12 claim they struggle to some extent to remember when vaccinations are due which clearly impacts on their ability to adhere to the schedule.

**Figure 11. Vaccination date memory**

*D6. There are a lot of vaccination dates to remember. Do you ever have difficulty remembering when the next vaccination is due?*

Remembering when vaccinations are due can be an issue for almost half of parents, and appears to impact their ability to adhere to the schedule



▲ ▼ Significant difference at 95% confidence

Base: All parents (n=1,200). With kids aged 0-5 years (n=872) / With kids aged 6-12 years (n=328)

When it comes to remembering vaccination dates, the Child Personal Health Book is the go-to resource for parents (39% amongst parents of kids 0-5 and 42% amongst parents with kids 6-12) while reminders from the government or vaccination program are particularly useful for parents with older children. Approximately one in four parents rely on simply writing the dates in their diary/calendar or a reminder from their practice/clinic or community centre.

Amongst parents who are completely up to date and had all of their children immunised on time, the Child Personal Health Book is the most commonly used reminder tool (four in ten parents of children aged 0-12), highlighting its effectiveness as a resource. The use of any resource or tool that reminds parents when to vaccinate correlates positively with better compliance.

Two in three parents acknowledge the importance of sticking to the vaccination schedule, however Aboriginal and Torres Strait Islander parents have more of a relaxed attitude to the implications of being late (66% strongly agree/agree with the statement 'I believe it doesn't matter if the vaccination is a few weeks late vs. 42% for total parents).

Amongst those parents whose children were immunised later than the recommended time in the vaccination schedule, their main reason for being late was a sick child and that they didn't want to risk vaccination at that point in time or the doctor wouldn't vaccinate their sick child(ren). Both of these reasons were slightly higher amongst parents of younger children whilst simply fitting the



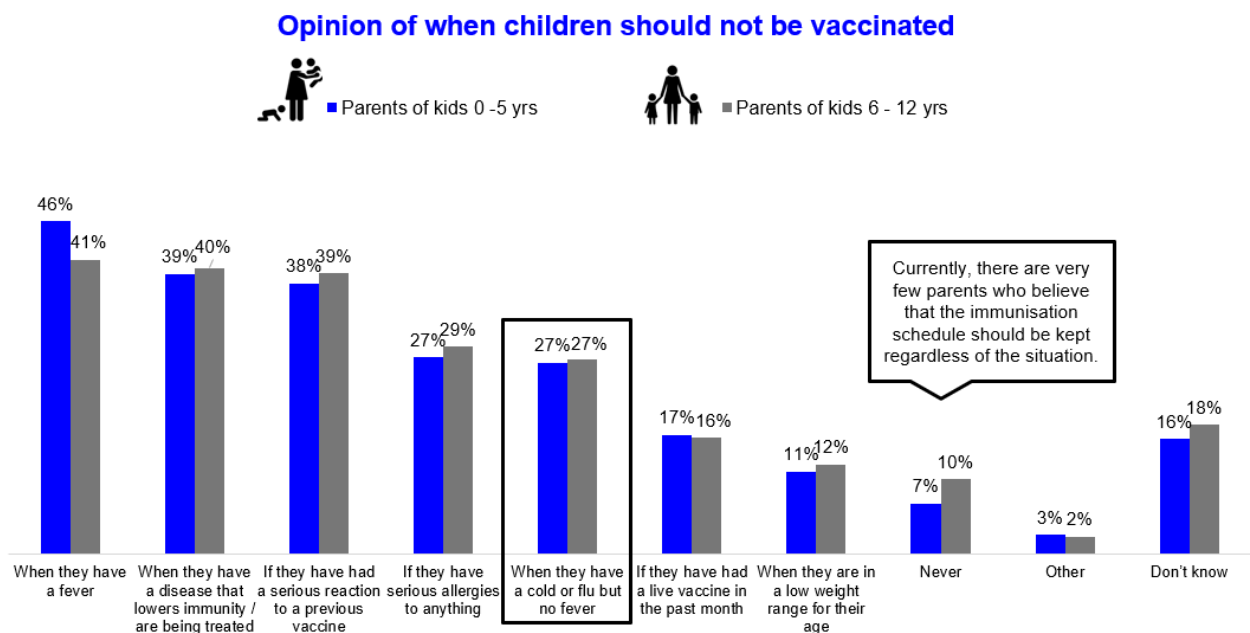
vaccinations into a busy schedule is more of an issue for parents of older children (43% for parents of kids 6-12 vs. 33% for parents of kids 0-5).

As for the times when parents believe a child should not be vaccinated, three clear scenarios emerge when four in ten of all parents believe the vaccination should be delayed – when they have a fever, when they have a disease that lowers immunity/are having treatment that lowers immunity or they have had a serious reaction to a previous vaccine.

**Figure 12. Opinion of when children should not be vaccinated**

G4. When do you think that a child should not be vaccinated?

Almost 1 in 3 parents believe that vaccination should be delayed when the child has a cold or flu, but no fever



▲ ▼ Significant difference at 95% confidence

Base: All parents (n=1,200). With kids aged 0-5 years (n=872); with kids aged 6-12 years (n=328)

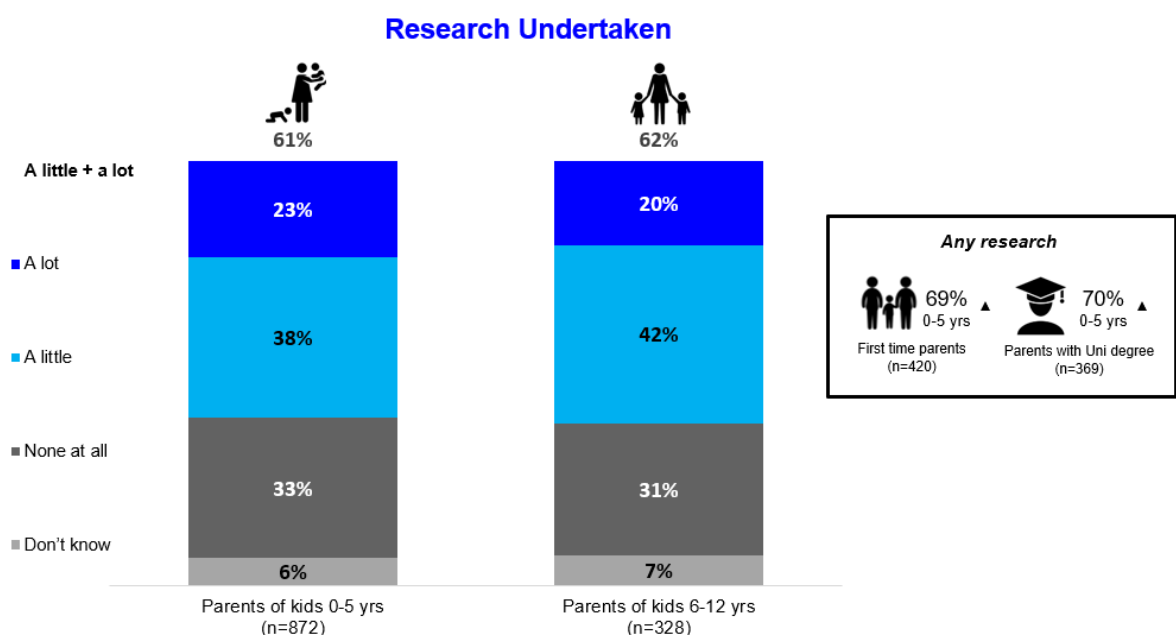
## 5.7 Information sources

Prior to making the decision whether or not to vaccinate their child(ren), six in ten parents claim they undertook some kind of research with one in five stating they did 'a lot'. Those most likely to do any kind of research are those who are first-time parents and parents with a university degree who have a child aged 0-5. One in three parents claim they did no research at all whilst less than 10% can't recall or don't know whether they did any research.

**Figure 13. Research undertaken**

A4. How much information did you seek out before making the decision of whether or not to get your children vaccinated?

6 in 10 parents claim that they undertook research before deciding whether they would vaccinate their children.



▲ ▼ Significant difference at 95% confidence

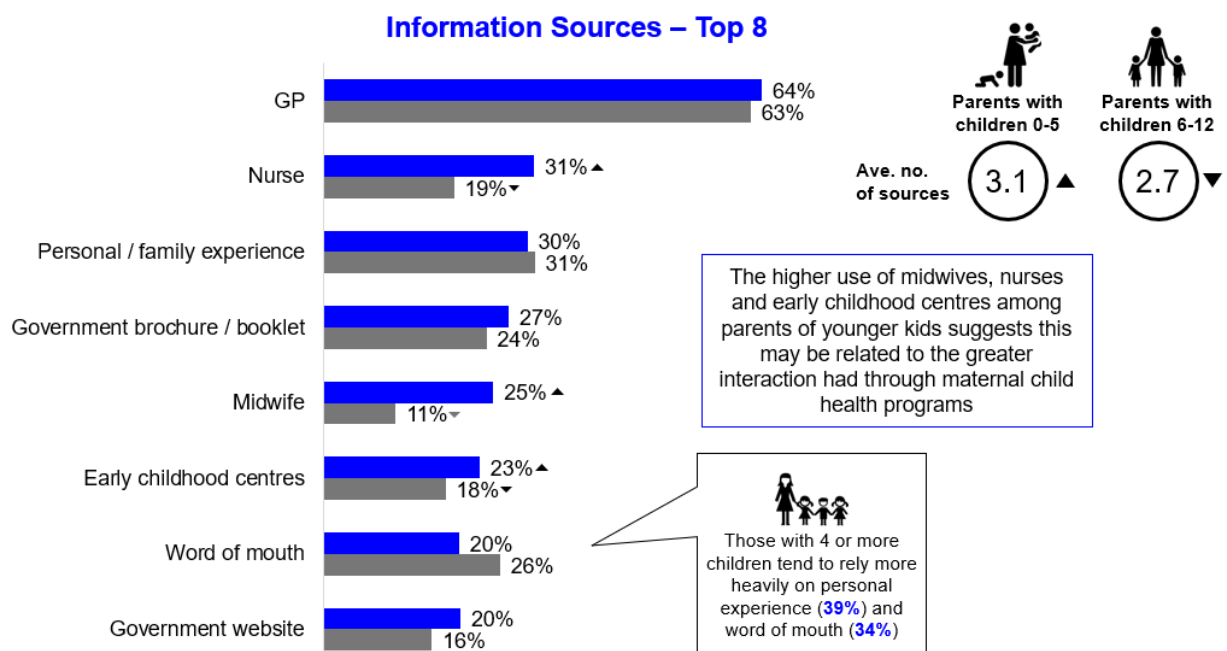
Base: All parents (n=1,200). With kids aged 0-5 years (n=872); with kids aged 6-12 years (n=328)

When sourcing information about childhood immunisation, GPs are the go-to resource with six in ten parents using this resource. Parents of younger children are more likely to use a wider range of resources during their information search whilst parents of older children are slightly more likely to use word of mouth. Larger families (4 or more kids) are also more likely to rely on word of mouth as well as personal experience.

**Figure 14. Information sources – Top 8**

*A5a. From which of the following sources have you obtained information about childhood vaccination?*

GPs stand out as the most common information source – though parents of younger children use a greater number of sources



▲ ▼ Significant difference at 95% confidence

Base: All parents (n=1,200). With kids aged 0-5 years (n=872); with kids aged 6-12 years (n=328)

Looking across the typologies, GPs are still the primary information source for all groups (especially 'Advocates' and 'Acceptors') whilst 'Rejectors' and those parents 'On the fence' are more likely to seek information from non-government sources such as articles on the internet, media articles/stories, online forums/blogs, information from groups opposed to vaccination and natural therapists.

GPs' position as the most commonly referenced information source is likely to be driven by their status as the most useful source as they are deemed to be the most valuable by all parents, even those classified as 'On the fence' or 'Rejectors'. Personal experience emerges as the second most useful source of information across all typologies.

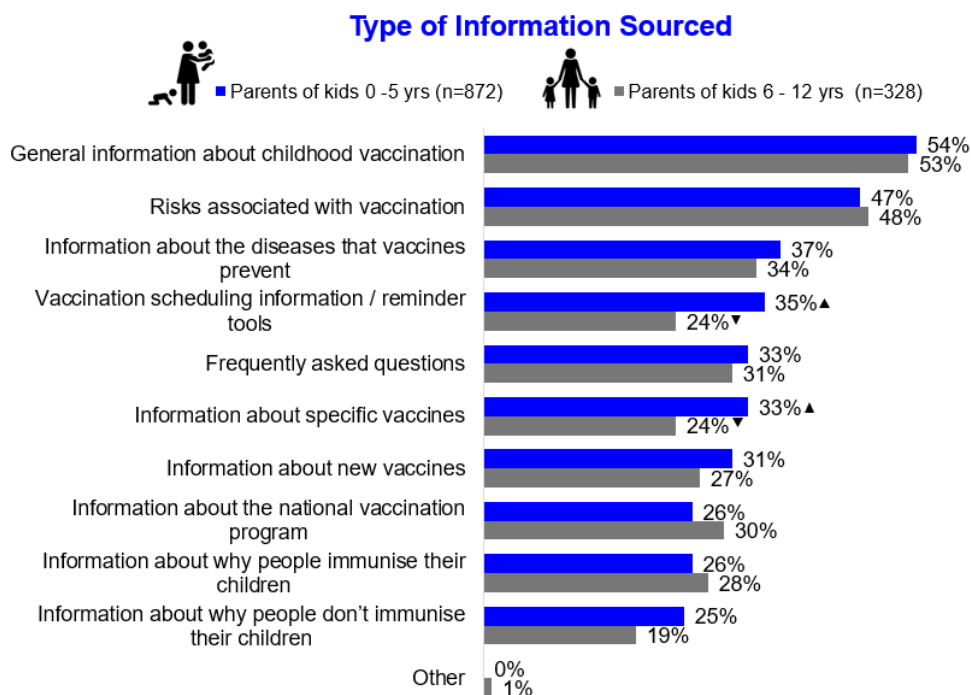
## 5.8 Types of information sourced

When searching for information, parents are typically seeking general information about immunisation and its risks. Parents of younger children are more likely to be looking for information about specific vaccines and tools that will aid with vaccination scheduling or reminders.

**Figure 15. Type of information sourced**

A7. What type(s) of information did you look for?

Parents are mostly looking for general information about immunisation and its risks, while parents of younger kids are more likely to seek information about specific vaccines



▲ ▼ Significant difference at 95% confidence

Base: All parents (n=1,200). With kids aged 0-5 years (n=872); with kids aged 6-12 years (n=328)

'Advocate' and 'Acceptor' parents across both age groups are more likely to be primarily focused on general information about childhood vaccination whilst those parents classified as 'On the fence' or 'Rejectors' are more focused on understanding the risks associated with childhood vaccination.

## 5.9 Satisfaction with information sourced

Parents are generally very satisfied with the information they managed to find or received about childhood vaccination and satisfaction levels are consistently high across parents from both child age groups. Those parents who are 'On the fence' are significantly more likely to state the information they sourced was less satisfactory (7.9 average satisfaction rating) when compared to those parents who are more accepting of immunisation (8.9 'Advocates' and 'Acceptors').

## 5.10 Information source performance rating

All government sources of information were rated highly by parents (averaging 8.0 or higher) across all performance factors. The smaller typology groups of 'On the Fence' and 'Rejectors' were less likely to rate government information sources as high but this impact is mitigated when appraising the information amongst all parents. Healthcare professionals (GPs, nurses, midwives) were again

the standout information sources amongst parents with all 3 roles enjoying an average rating of 8.5 or higher across all factors.

**Table 9. Information source performance rating – Government/official sources**

A10. How would you rate the information you got from [X] on the following...? 0- Extremely Poor, 10- Excellent

All Government sources of information rate strongly (averaging 8.0+) across all performance factors

**Info source performance rating – Government / official sources**

	GP (n=661)	Nurse (n=259)	Gov't brochure / booklet (n=210)	Midwife (n=180)	Early childhood centres (n=166)	Gov't website (n=149)	HCP visiting me at home (n=79)
Balanced	8.5	8.5	8.3	8.7	8.4	8.1	8.1
Fact based	8.6	8.7	8.5	8.6	8.4	8.2	8.2
Easy to understand	8.7	8.7	8.5	8.7	8.5	8.3	8.4
Trustworthy	8.6	8.7	8.4	8.6	8.4	8.2	8.2
Consistent with gov't / official sources	8.5	8.6	8.7	8.6	8.5	8.4	8.2
Up to date	8.6	8.7	8.6	8.7	8.5	8.3	8.4
Well researched	8.5	8.6	8.5	8.6	8.3	8.3	8.2

▲ ▼ Significant difference at 95% confidence

Base: All parents (n=1,200)

There is a noticeable drop-off in performance ratings for non-government/official information sources where perceptions of being 'balanced', 'fact-based' and 'trustworthy' differ greatly between sources. The poorest performing sources in these areas are information from a group opposed to vaccination and online forums/blogs. Specific parenting magazines emerge as the strongest performing source of information from the general resources.

Looking at the topics covered in the information sourced by parents, most topics are rated positively. Although there is a slight drop in performance when it comes to risks associated with vaccination and information about why people don't immunise their children is rated particularly low.

**Table 10. Information type performance rating**

A10. How would you rate the information you got from [X] on the following...? 0- Extremely Poor, 10- Excellent

Information on most topics is rated positively, though there is a slight drop when it comes to risks associated with vaccination, and anti-vax topics are rated far lower

### Information type performance rating

	General Info (n=177)	Info about the national Vax program (n=153)	Info about new vaccines (n=154)	Info about specific vaccines (n=156)	Info about the diseases that vaccines prevent (n=160)	Vax scheduling Info / reminder tools (n=156)	Frequently asked questions (n=165)	Info about why people don't immunise their children (n=152)	Risks associated with vaccination (n=165)	Info about why people immunise their children (n=161)
Balanced	8.1	8.0	7.9	7.9	7.8	8.0	8.0	5.7	7.6	7.8
Fact based	8.1	8.1	8.0	8.2	8.0	8.2	8.1	6.0	7.8	8.0
Easy to Understand	8.1	8.2	8.0	8.0	8.1	8.1	8.2	6.8	7.8	8.1
Easy to Find	8.1	8.2	8.0	7.8	8.0	8.1	8.1	7.2	7.7	8.2
Consistent with Government sources	8.0	8.2	8.0	8.0	8.0	8.3	8.0	5.3	7.6	8.2
Up-to-date	8.1	8.3	8.1	8.2	8.1	8.2	8.1	6.6	7.9	8.1

Anti-vax information is perceived to be relatively poorer on all performance factors.

▲ ▼ Significant difference at 95% confidence

Base: All parents (n=1,200)

## 5.11 Key findings and potential next steps for parents

- > The largest typologies of parents are 'Strong Advocates', 'Active Acceptors' and 'Passive Acceptors' who largely support childhood immunisation as an effective and safe way of preventing disease.
  - The findings indicate that these typologies would benefit most from messages that simply endorse their behaviour.
- > The 'On the Fence' typologies often have lower levels of perceived knowledge around immunisation. Therefore, there may be an opportunity to strengthen engagement with these audiences to increase their knowledge of the topic as a means of potentially growing support for immunisation and vaccination rates.
- > Overall, childhood immunisation rates are significantly underestimated by parents, highlighting that it may be helpful to share information about actual coverage rates to create a social norming effect.
- > Whilst most parents immunise and find the decision easy, there are some underlying concerns amongst parents of children that have not been vaccinated about the safety of vaccines and in some cases, their effectiveness.
- > There may be value in addressing these concerns and misconceptions so as to reduce their prevalence and the potentially negative impact they may have on immunisation rates.
- > For 'On the Fence' and 'Rejectors' it appears that the loss of government benefits and potential school admission restrictions can play a role in encouraging vaccination.

- It appears that increased promotion of these policies and the associated consequences is likely to help drive uptake of vaccinations amongst parents in the less accepting typologies.
- > Healthcare professionals, particularly GPs and midwives, play a very positive role across all typologies in educating and influencing parents around immunisation.
  - The findings indicate that encouraging and maximising the role of healthcare professionals as positive influences will help to alleviate any concerns that parents may have.
- > For many parents, remembering when vaccinations are due can be challenging and presents a significant barrier to keeping children up to date with their vaccinations.
  - Prompts or reminder tools are likely to be effective in helping parents stick to the immunisation schedule.
- > Uncertainty and misconceptions persist regarding when vaccinations should be delayed due to a child being sick – almost one in three parents believe a cold is a good enough reason to delay their child being vaccinated.
  - There may be some value in providing some greater clarity around when a child is too sick to be immunised (i.e. the presence of a fever).
- > Most parents are looking for general information about immunisation although there is definitely some appetite for information about specific vaccines and the risks associated with vaccinating, especially amongst those classified as 'On the Fence' or 'Rejectors'.
  - In developing information materials, there may be value in providing more detailed information around specific vaccines and associated risks.



## 6. FOCUS ON OLDER ADULTS (AGED 70+)

### 6.1 Over 70s typologies (support for immunisation)

The over 70s target audience were also asked to select which of the following typologies most closely described them personally, in relation to the flu vaccine specifically:

**Figure 16. Over 70s Typologies**

*F1. Please select the statement that most closely describes your personal opinions about vaccination.*

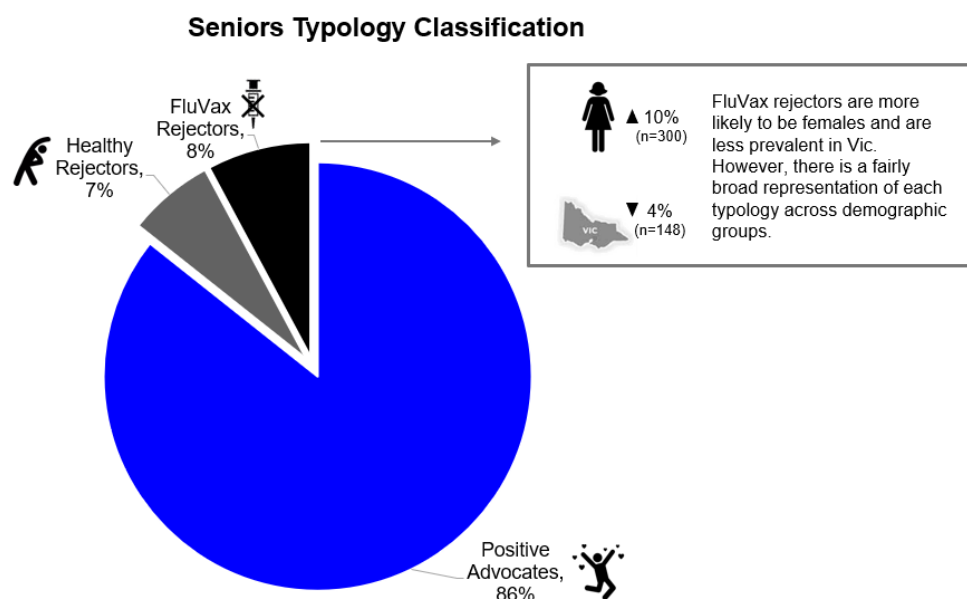
Over 70s were also asked to select which of the following typologies most closely describe them personally in relation to the flu vaccine

#### Over 70s Typologies

<b>Positive Advocates</b>	I am strongly in favour of vaccination and try to take any vaccination that I am entitled to. I don't want to get sick and see vaccination against flu as a sensible way to prevent illness. Vaccination is a responsible thing to do to stop the spread of diseases like flu.
<b>Healthy Rejectors</b>	Vaccination against flu is not relevant to me as I am fit and healthy and don't tend to get sick very often. It is more relevant to people who are older than me, more frail or vulnerable.
<b>FluVax Rejectors</b>	I don't want the flu vaccine. In my experience people who receive the flu jab end up getting sick – either from the vaccination itself or because it simply doesn't work.

**Figure 17. Seniors Typology Classification**

Almost 9 in 10 identify most closely as Positive Advocates, with the balance split equally between Healthy and FluVax rejectors



▲ ▼ Significant difference at 95% confidence



Base: All parents (n=1,200) Base: All adults aged 70+ years (n=600)

Almost nine in ten identified themselves as 'Positive Advocates' with the balance split fairly equally between 'Healthy Rejectors' and 'FluVax Rejectors'.

There is very limited opposition to immunisation amongst older Australians with 87% stating that they strongly support it (total support is 97%). This is despite less than half of these 70+ year olds (43%) doing any kind of research into the topic.

Even amongst the 'Positive Advocates' typology, only 12% claim to do a lot of research compared with 13% of the total 70+ year old age group. This typology, by definition, regard the flu vaccine as something that they simply do each year without the need for research.

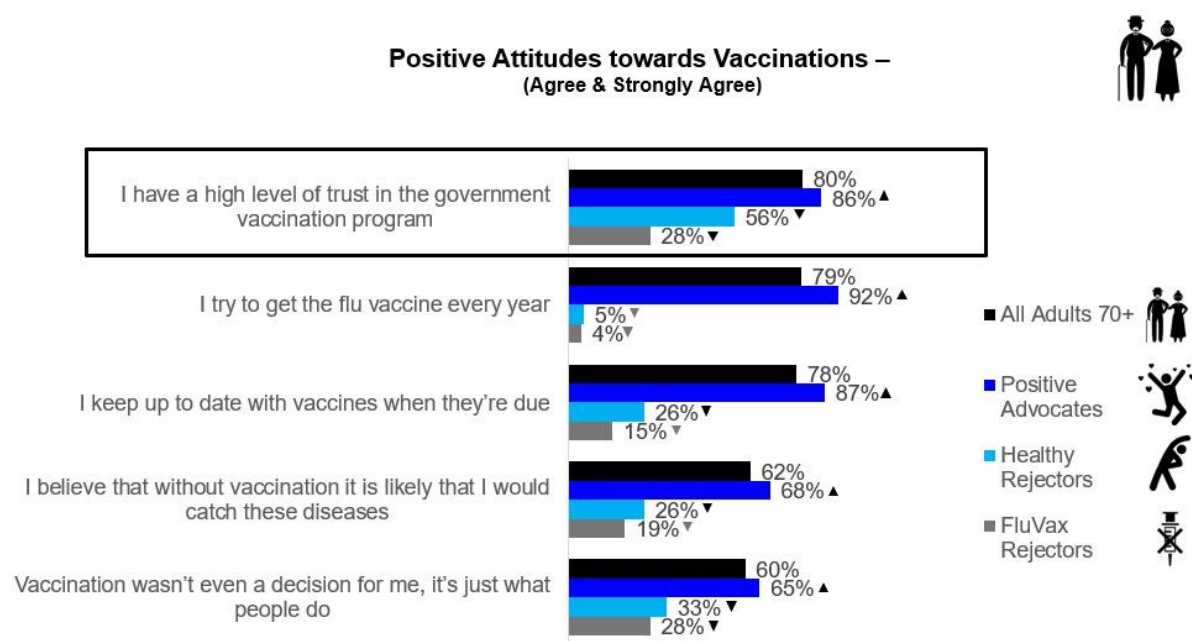
## 6.2 Attitudes towards vaccinations

Overall there is a high level of trust in the NIP with eight in ten adults aged 70+ stating they trust the government's vaccination program and a similar proportion saying they 'try to get the flu vaccine every year'. While just over half of 'Healthy Rejectors' state they trust the NIP, their stated intent to get the flu vaccine each year is only 5%.

**Figure 18. Positive Attitudes towards Vaccinations**

H2. Please indicate how strongly you agree or disagree with each of the statements below about vaccination.

There is a high level of trust for the NIP – including among 'Healthy Rejectors'



▲ ▼ Significant difference at 95% confidence

Base: Adults aged 70+ years (n=600), Positive Advocates (n=514), Healthy rejectors (n=39), FluVax rejectors (n=47)

In terms of their reaction to more negative associations, the over 70s target audience generally see vaccination as being relatively low risk. Only a third of even the most critical typology, 'FluVax Rejectors', state that the 'risk of vaccination seems to be worse than catching the disease' (vs. 12% for all adults aged 70+ years).

One in three adults (38%) aged 70+ years claim to have seen or heard about bad reactions to vaccinations, but this is driven primarily by 'FluVax Rejectors' (81%) who are the most censorious of

the typologies – 70% believe not at all vaccines are necessary and four in ten believe vaccination is only encouraged because of pressure from pharmaceutical companies.

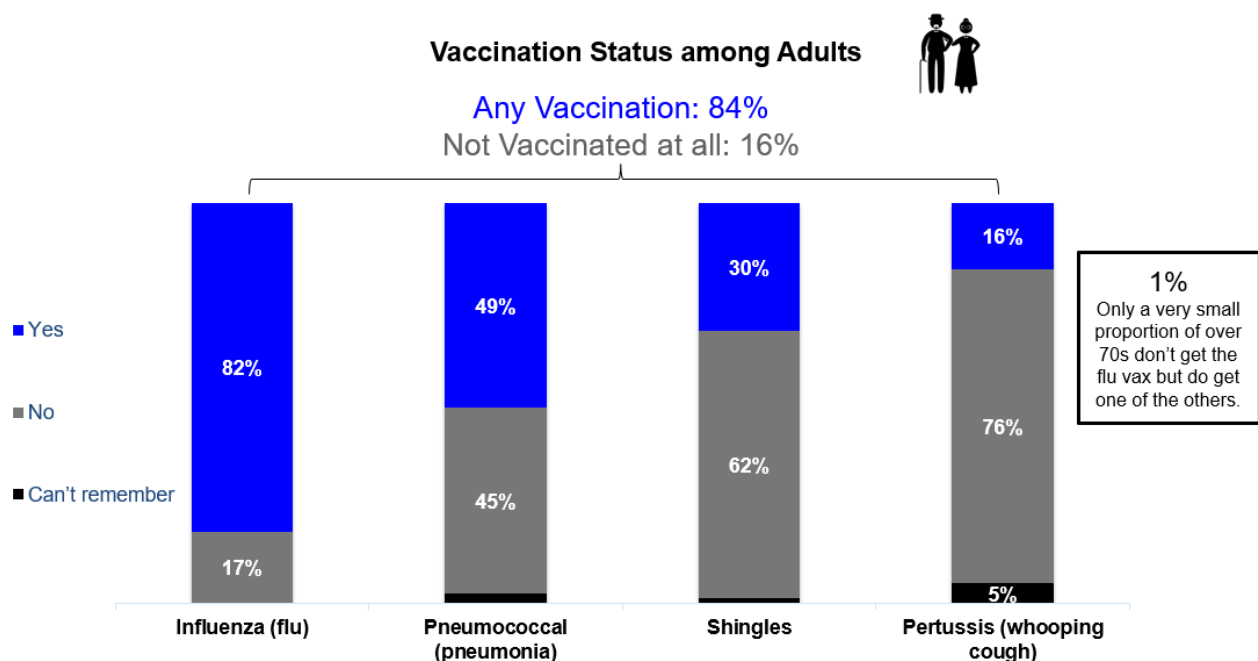
### 6.3 Vaccination status and decision-making

Immunisation against influenza (flu) is by far the single vaccine that Australians aged 70+ are most likely to have received (82%) in the last three years which in turn drives an overall immunisation rate of more than 80% amongst this target group for at least one of pneumococcal, shingles, pertussis (whooping cough) or flu.

**Figure 19. Vaccination status amongst adults**

*B2. Have you received vaccinations for any of the following in the past 3 years?*

Vaccinating against any disease is very common among over 70s (8 in 10), although this is predominantly driven by take-up of the flu vaccine



▲ ▼ Significant difference at 95% confidence

Base: Adults aged 70+ years (n=600)

In line with their high level of vaccination, the decision whether to vaccinate or not for adults aged 70+ is an easy one with 93% stating it was 'very easy' or 'easy'. Nine in ten 'Positive Advocates' said it was a 'very easy' decision compared with only 46% of 'Health Rejectors' and 36% of 'FluVax Rejectors'.

### 6.4 Reasons for vaccination

The most common reasons for adults aged 70+ to be vaccinated was to protect themselves, and then to protect friends/family, against diseases (i.e. influenza, pneumococcal, shingles, whooping cough) whilst one in two see the benefit of protecting the wider community. A similar proportion simply thinks it is the right thing to do or they were told by a health professional to be immunised.

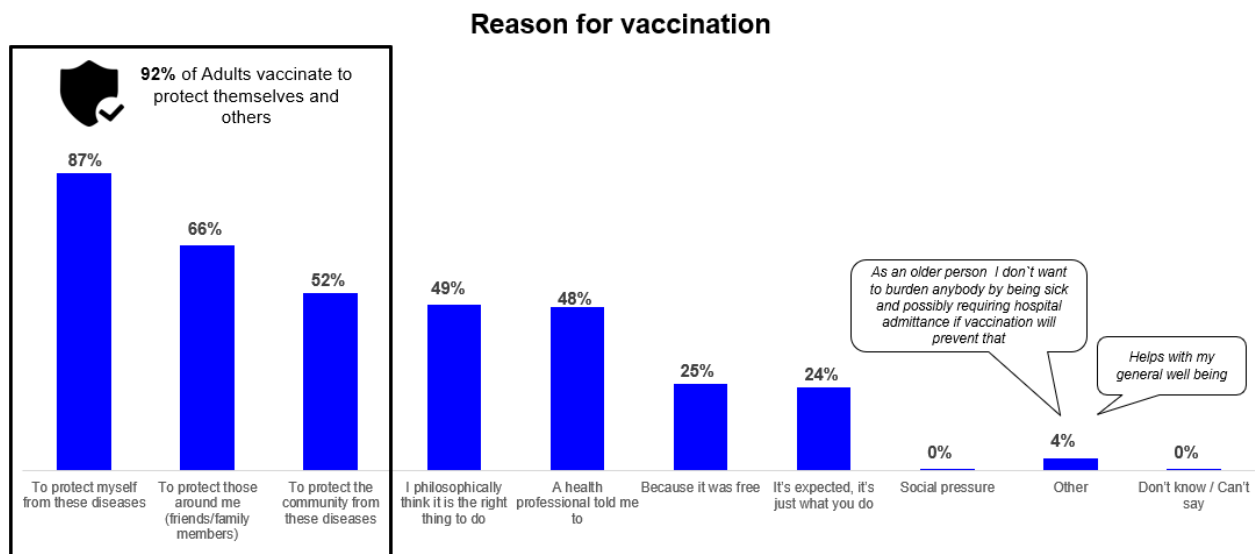
When asked what their main reason was for being immunised, being told by a health professional emerges as a strong motivator alongside protecting friends and family members.

Although it's not a main driver of uptake relative to other factors, the fact that the vaccination is free does seem to encourage vaccination, with one in four stating it as a reason for being immunised in the past 3 years.

**Figure 20. Reason for vaccination**

*E1a. Why did you choose to get immunised in the past 3 years?*

Similar to parents, the most common reasons over 70s get vaccinated is to protect themselves and others against diseases



▲ ▼ Significant difference at 95% confidence

Base: Adults aged 70+ years who have vaccinated in the past 3 years (n=505)

## 6.5 Information sources and influencers

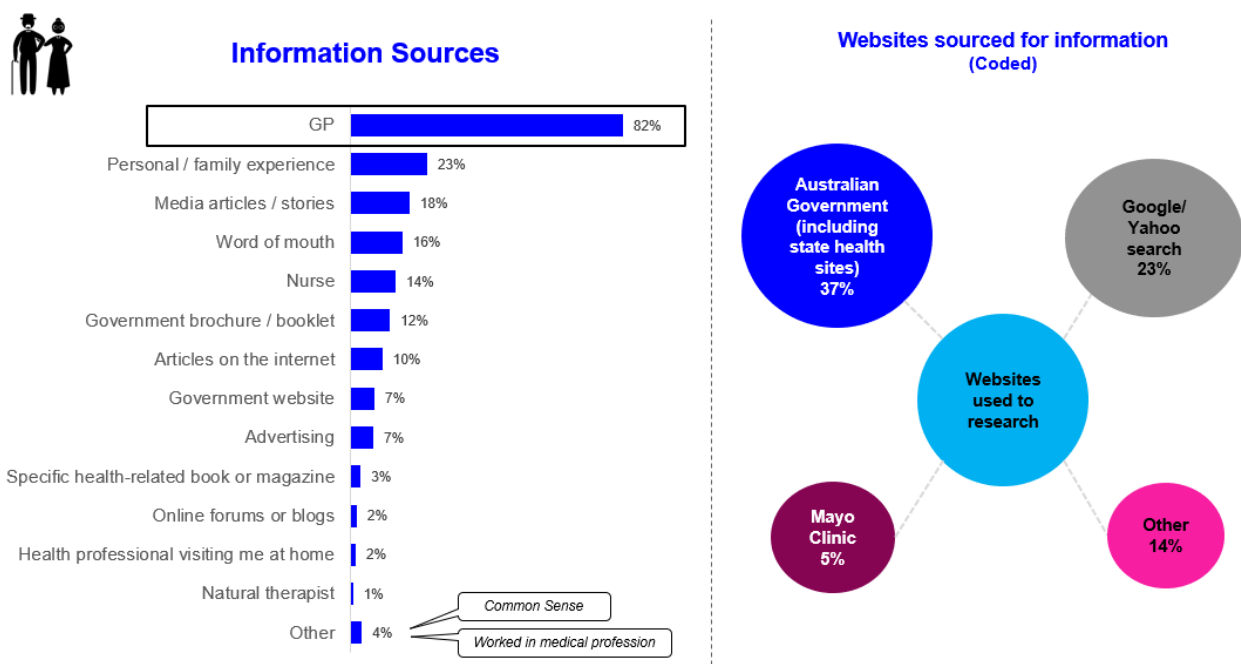
GPs are the main source of information for Australians aged 70+ with eight in ten using their doctor to assist in making their decision to vaccinate in general. Personal or family experience and media articles/stories complete the top three information sources consulted by this audience.

14% of adults aged 70+ claim to use at least one online source (government websites, online articles or forums/blogs), rising to 28% amongst 'FluVax Rejectors' (one in four consult articles on the internet).

**Figure 21. Information sources**

*B5. From which of the following sources have you obtained information about vaccinations?*

The GP is the key source of information, with 8 in 10 over 70s using their doctor to assist in making their decision to vaccinate



▲ ▼ Significant difference at 95% confidence

Base: All adults aged 70+ years who made the decision to vaccinate or not (n=598)

In keeping with their role as a key source of information for older adults, GPs and other health professionals are the main influence on 70+ year olds adults' decision to be vaccinated. Eight in ten see health professionals as having an influence on their decision whilst not seeing a health professional very often is a key contributing factor to not being vaccinated.

The main barrier to not being vaccinated is simply that some 70+ year olds don't feel they need or that they don't get sick (38%). Concerns about the side-effects (16%), doubts over its effectiveness (16%), a lack of time (8%) and the thought that the vaccine can make you sick (8%) are all low levels barriers.

In terms of the type of information sourced by Australians aged 70+, general vaccine information is the primary focus (55% amongst all 70+ year olds) although just under half are looking for information on specific vaccines. Around one in three claim they look for information about the potential risks associated with vaccination and unsurprisingly this is significantly higher amongst

'FluVax Rejectors' (74%). 'FluVax' Rejectors' are also much more likely to look for information about why people get immunised and why they don't, to build a more holistic view on the topic.

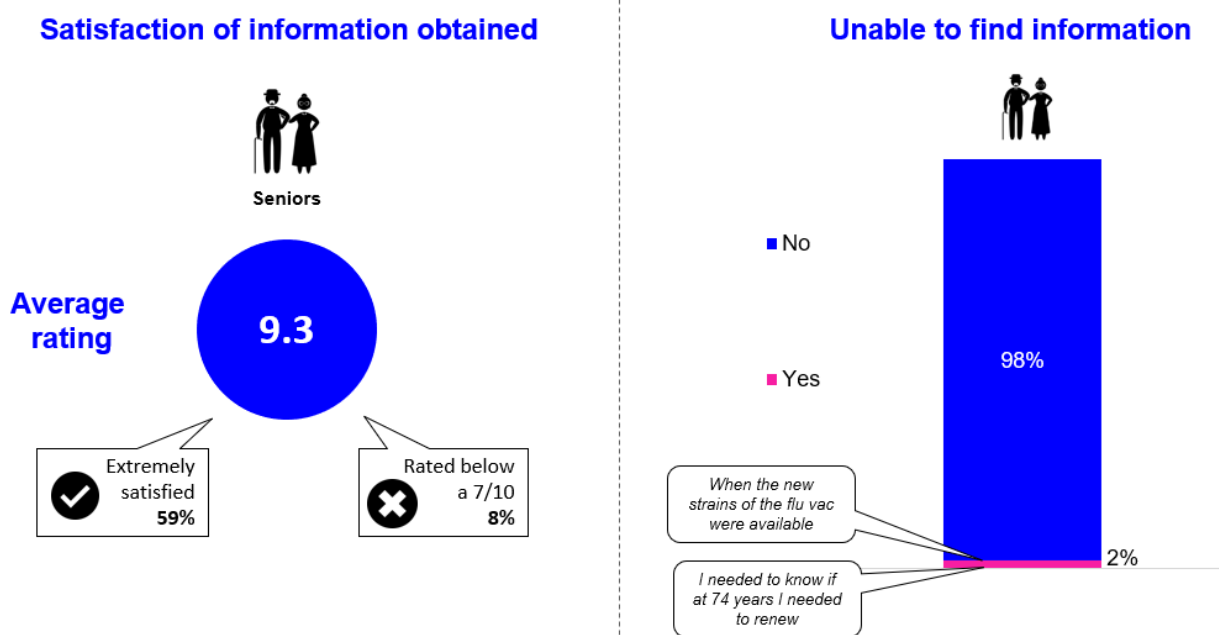
Nine in ten Australians aged 70+ claim they are satisfied with the information they obtained about immunisation and very few were unable to find the information they were looking for.

**Figure 22. Satisfaction with information obtained**

B9. Overall, how satisfied were you with the information you were able to find/received?

B8. Where there any topics/types of information that you were looking for but couldn't find?

Over 70s are highly satisfied with the available information, with very few unable to find the information they were looking for



▲ ▼ Significant difference at 95% confidence

Base: All adults aged 70+ years searching for information (n=261)

Base: All adults aged 70+ years searching for information (n=288)

When it comes to rating the individual sources used to find information about vaccinations, over 70s recognise the superior quality of government/ official information sources (GPs/nurses, brochures/websites), which perform well in all areas but are seen to be particularly well-researched, trustworthy and easy to understand relative to other sources. See Table 11 below for more details.

**Table 11. Information type performance rating**

*B10. How would you rate the information you got from [information source] on the following...?*

Over 70s recognise the superior quality of Government / official sources, which are seen to be particularly well researched



### Information source performance rating

	GP (n=413)	Nurse (n=62)	Advertising (n=35)	Media articles / stories (n=61)	Gov't Brochure (n=66)	Gov't website (n=42)	Word of mouth (n=76)	Articles on the internet (n=44)
Balanced	9.1	9.1	8.2	7.5	8.5	8.6	7.6	7.8
Fact based	9.2	9.2	8.3	7.7	8.7	8.8	7.4	8.0
Easy to Understand	9.3	9.3	8.5	8.0	8.7	8.8	8.0	8.1
Trustworthy	9.3	9.3	8.4	7.5	8.8	8.7	7.7	7.7
Consistent with official sources	9.3	9.1	8.5	8.0	8.9	8.9	7.8	7.7
Up-to-date	9.3	9.2	8.5	7.9	8.9	8.9	7.8	7.9
Well researched	9.3	9.3	8.6	7.7	9.0	8.7	7.4	7.9
Easy to find			8.3	7.9	8.6	8.6	7.8	7.0

▲ ▼ Significant difference at 95% confidence

Base: All adults aged 70+ years searching for information (n=261)

Information about the NIP is held in high regard by this audience, particularly in terms of being fact-based and up to date, as are vaccination scheduling tools. Frequently asked questions (FAQs) are singled out by 70+ year olds as the poorest performing information source, particularly in terms of being seen as 'fact-based' and 'balanced'.

## 6.6 Key findings and potential next steps for over 70s

- > Over 70s have a strong level of support for immunisation overall, and generally find it an easy decision to be immunised (or not) against the flu, pneumonia, shingles or whooping cough.
  - Indications are that most over 70s would benefit from messages that endorse their decision to vaccinate themselves in line with the NIP.
- > Although (claimed) vaccination levels for over 70s are relatively high, this is predominantly focussed on the influenza vaccination.
  - Increasing communications around the importance of vaccination/safety risks associated with other vaccines covered by the NIP should therefore be considered.
- > One in ten over 70s feel that it isn't necessary for them to get the flu vaccine if they are healthy – this is the most common barrier for those not vaccinated.

- For older Australians, there may be value in messages aimed at helping to persuade current 'Heathy Rejectors' to vaccinate.
- > GPs and other health professionals are the most common and influential source of information for Australians aged 70 or over. However, with more than a third of this target audience stating that they don't think they need to be immunised (against flu, pneumonia, shingles or whooping cough) or that they do not get sick, some over 70s may not see their GP regularly enough to receive this message.
  - As such, consideration should be given to the use of other channels to communicate to 'Rejectors' (e.g. through increased use of online press articles and use of SEO).

## 7. APPENDIX

### 7.1 Cognitive interviewing

In the case of this research, Nature adopted its standard approach to pilot testing and cognitively tested the questionnaire prior to the general survey being launched. As cognitive testing focuses on respondent comprehension, the method involves the following processes for online surveys:

- > A monitored survey – the test respondent completes the survey with a supervisor or other trained observer and is invited to ask questions to clarify any questions, or to comment in any other aspect of the questionnaire. The observer listens to the respondent's questions and comments, while also observing their responses on the screen;
- > On completion, the respondent is asked about the survey process generally, and invited to provide feedback; and
- > Their responses are examined for internal consistency.

The cognitive testing reports on the following factors:

- > Whether respondents fully understood the questions;
- > Whether respondents were able to answer the questions within the existing answer frame;
- > Whether the flow and logic of the questionnaire made sense; as well as
- > Confirming that there was no apparent duplication of questions or questions that seemed irrelevant.

In the case of this research on immunisation, cognitive testing was conducted between the 6th March and the 7th March by means of conducting 10 test interviews using the process described above. The participants in the trial included an equal number of people under the age and over the age of 50, and three people for whom English is a second language.