Scottish Government
Riaghaltas na h-Alba
gov.scot

The Vaccination Programme: user journeys and experiences of Covid-19 and flu vaccination

HEALTH AND SOCIAL CARE

social research

The Vaccination Programme: user journeys and experiences of Covid-19 and flu vaccination

June 2022

Jane Eunson, Emily Gray, Catriona Millar, Maggie Pollok
Ipsos Scotland

The Scottish Government would like to acknowledge the input and support of the Research Advisory Group to the development, progress, and quality of this research:

The Council of Ethnic Minority Voluntary Sector Organisations (CEMVO) Scotland

Glasgow Disability Alliance

The Minority Ethnic Carers of People Project (MECOPP)

National Parent Forum of Scotland

NHS Dumfries and Galloway

NHS Grampian

Poverty Alliance

Public Health Scotland

Scottish Youth Parliament

Contents

Executive summary

In January 2021 the Scottish Government in collaboration with PHS established a Covid-19 vaccination programme as part of its response to the pandemic. In Autumn/Winter 2021/22, this was expanded to include both Covid-19 and flu vaccinations. From early 2023 the Scottish Vaccination and Immunisation Programme will be rolled out and this will cover all vaccinations in Scotland.

While overall vaccine uptake rate in Scotland is high, a minority remain unvaccinated (8.2% as of 25 May 2022) and there is evidence that this proportion is higher among certain groups in society – younger people, those living in the most deprived areas and people from some minority ethnic groups. Scotland also developed its flu vaccination programme to take account of the risks of concurrent infection of both Covid-19 and flu as well as the extra pressures on health and social care services due to the pandemic.

The purpose of this research was to understand experiences of the Scottish vaccination programme (Covid-19 and flu) among people who may face additional barriers to vaccination. The two broad aims were to provide rich, qualitative data on:

- The user journeys of a specified set of key groupings within the population, taking into account highly practical experiences of vaccination and provide information that can aid in planning and support for future vaccine rollout
- The wider experiences of vaccination, specifically why people decided to engage with or disengage from the vaccination programme.

Data was gathered from 81 participants who were adults living in Scotland during the vaccination programme and members of groups who may face additional barriers to Covid-19 vaccination. Semi-structured depth interviews, lasting around one hour each, were used. All interviews were conducted via telephone or videocall and took place between 11 March and 3 May 2022 and were structured by discussion guides (available via ‘Supporting Documents’ on the Scottish Government website). The COM-B behavioural science framework shaped the research to ensure that the full range of influences and experiences of vaccine user journeys were explored.

Key findings

Getting a first Covid-19 vaccination

Traditional news media was the most widely reported information source on the vaccination programme. Other sources included: social media, word of mouth, online searches and official websites, printed promotional materials, religious leaders, and formal channels such as employers or support organisations. Overall, trust was higher for news and official sources (such as the Government or the NHS) than for social media and word of mouth. Participants generally felt they had

enough information to make an informed decision and that the information was clear enough, although there were some exceptions to this.

Key considerations involved in decision making around receiving a first Covid-19 vaccination included: perceived personal health risk from Covid-19; the protection of others; the safety of the Covid-19 vaccine; pandemic restrictions; Covid Status Certification; wider attitudes (to vaccines in general and towards government and pharmaceutical companies); and social influences from friends and family.

In regard to practical considerations, factors enabling engagement with the vaccination programme were: having local appointments; being able to drive; a flexible/understanding work situation; having support with childcare; well-signed and stewarded venues; and invitation and reminder letters arriving on time to the correct address. Practical barriers included: venues far from home; accessibility issues for those with autism and/or sensory disabilities; inefficient queuing systems and long wait times; not receiving invitation or reminder letters; insensitive staff; or employers not being flexible.

Getting a second or third Covid-19 vaccination

Overall, information sources used were similar when hearing about and deciding whether to get a first, second or third dose of the Covid-19 vaccine. However, there was some shift over time towards less reliance on formal information sources such as mainstream news or government-issued information and greater reliance on word of mouth and personal experience.

Participants generally felt that they were more informed about later doses compared to the first, particularly about side effects and how the vaccine was working in practice. However, there were a few points of confusion, mainly relating to getting a third dose and the term “booster”.

The easing of pandemic-related restrictions, the introduction of Covid Status Certification and the wider context of revelations about Downing Street parties during lockdowns all had an impact on decision making about whether to get a second and third dose of the Covid-19 vaccine.

As time went on, participants also increasingly had direct personal experience of Covid-19, either contracting Covid-19 themselves or close family and friends having the virus. Particularly for those who had mild or no symptoms, this could reduce their perceived personal health risk from the virus, in turn reducing their motivation to get further Covid-19 vaccinations.

While the motivations for getting a second or third Covid-19 vaccination tended to be similar to the motivations for getting a first, there were some important differences in the barriers. Over time, concerns arose about the number of Covid-19 vaccine doses that were required and the effectiveness of the vaccine, largely due to a realisation that the vaccine does not prevent infection. This could lead to disengagement from the vaccination programme, particularly when it came to getting a third dose.

Practical experiences were also generally similar to experiences of the first dose, although some had doses at different venues. Practical barriers (for example, childcare and work commitments) could lead to participants not always receiving their second dose at the appropriate time, and there were concerns about meeting these types of responsibilities if side effects were severe. This appears to have been a greater concern for later doses.

Getting a flu vaccination

Participants had typically been aware of the flu vaccination programme for a number of years. Key information sources included: NHS invitation letters, GPs and nurses, posters in GP surgeries and pharmacies, television advertising and workplace communications (particularly for NHS employees).

Personal health risk was a key factor influencing decisions about the flu vaccine. Other factors acting as both drivers and barriers to receiving a flu vaccination included: perceived effectiveness of the vaccine; views on its safety and side effects; and Covid-19 and flu being in circulation at the same time.

Similar to practical experiences of the Covid-19 vaccination, experiences of receiving the flu vaccination were largely positive. Views on getting the flu vaccination at the same time as the Covid-19 vaccination were mixed. It could be appealing as it saved time and was convenient. However, concern about increased side effects could be off-putting.

Views on children getting vaccinated against Covid-19 and the flu

Parents typically felt they and their children were in agreement on getting a Covid-19 vaccine. Older children tended to be more involved in decision making compared to younger children.

Those with strong views on the Covid-19 vaccination typically felt similarly regarding whether their children should be vaccinated. Those who had not had any Covid-19 vaccinations themselves were particularly against having their children receive it. Where there was divergence in views, it was among participants who had engaged in the Covid-19 vaccination programme themselves but were not confident in their children receiving a Covid-19 vaccination. There were two key reasons for this: (1) a perception that children did not need the vaccine due to being low risk and (2) believing that they had taken a risk by getting a newly developed vaccine and feeling uncomfortable with taking this decision on behalf of their children. Risks that were more of a worry when considering whether children should be vaccinated or not included impacts on puberty and fertility, which participants were less concerned about for themselves personally.

Parents tended to be more comfortable with children receiving a flu vaccine than a Covid-19 vaccine (in line with greater overall trust in the flu vaccine).

Future considerations

In considering whether to have future Covid-19 vaccinations, automatic motivations, often driven by fear and urgency earlier in the pandemic, had been largely replaced by more reflective motivations, with participants weighing up the risks and benefits.

Views towards future Covid-19 vaccinations varied. Among those who would not hesitate to take up further vaccinations, personal health risk was a key factor. Among other participants, views ranged from being likely to take up a future vaccine, albeit with careful consideration, to being certain not to. Barriers to future take up included:

- perceived (low) health risk
- vaccine fatigue
- views on vaccine efficacy
- concern about side effects
- original reason for vaccination no longer valid (e.g., Covid Status Certification travel requirements removed for certain countries).

Changes to (or new evidence on) the above factors may change participants' minds about receiving future vaccinations.

Overall, participants who had engaged with the Covid-19 and flu vaccination programmes felt they had been well organised. Participants suggested minor improvements to future Covid-19 and flu vaccinations programmes. Several themes cut across these suggestions for improvements; participants felt it was important for the vaccination programme to be: inclusive; transparent; flexible to users' needs; friendly; and welcoming.

While this research exclusively looked at Covid-19 and flu vaccination, these findings have wider applicability for other vaccinations. Therefore these themes for improvement will be used to inform the design of future vaccinations generally.

Conclusions

The theory behind COM-B is that, in order for a behaviour to take place, individuals should have the Capability (both psychological and physical); the Opportunity (both social and physical) and the Motivation (either reflective or automatic) to do so. If significant barriers exist within any domains, undertaking the behaviour is challenging. The research has identified both enablers and barriers to engagement with the vaccination programme under each of the COM-B domains.

In the context of the current vaccination programme, however, where participants were not typically hindered by informational or practical barriers, motivational factors exerted the greatest influence on vaccination decisions. This included both automatic motivation (e.g., fear and anxiety in relation to both the effects of catching Covid-19 and of vaccine side effects) and reflective motivation (more considered decision making around the consequences of being vaccinated or not).

1. Introduction and Methods

This report presents the findings from qualitative research into user journeys and experiences of the Covid-19 and flu vaccination programmes in Scotland for groups who may face additional barriers during 2021/22. The research was carried out by Ipsos Scotland on behalf of the Scottish Government.

This research sits alongside the wider evaluation of both vaccination programmes led by Public Health Scotland (PHS). The project adds to the current evidence base on uptake and experiences by providing evidence on a defined set of groups and is intended to inform policy and the practical rollout of all future vaccinations from early 2023, to help ensure that inclusion is kept at the heart of Scotland's Vaccination and Immunisation Programme.

Background to the 2020/21 vaccination programme

In January 2021 the Scottish Government in collaboration with PHS established a Covid-19 vaccination programme as part of its response to the pandemic[1]. In Autumn/Winter 2022, this was expanded to include both Covid-19 and flu vaccinations, and from early 2023 onwards the Scottish Vaccination and Immunisation Programme will be rolled out and this will cover all vaccinations in Scotland.

As of 25 May 2022, 91.8% of the Scottish population aged 18 and over have received their first dose, 88.8% have received their second dose and 78.3% have received a third dose/booster[2].

While the overall vaccine uptake rate in Scotland is high, a minority remain unvaccinated (8.2% as of 25 May 2022) and there is evidence that this proportion is higher among certain groups in society. In September 2021, an Audit Scotland briefing showed that a lower proportion of younger people, those living in the most deprived areas and people from some minority ethnic groups had been vaccinated[3].

[1] Scottish Government, (2021). Coronavirus (Covid-19): Vaccine Deployment Plan - January 2021. Available at: https://www.gov.scot/publications/coronavirus-Covid-19-vaccine-deployment-plan-2021/

[2] Public Health Scotland, (2022) Covid-19 Daily Dashboard. Available at: https://public.tableau.com/app/profile/phs.Covid.19/viz/Covid-19DailyDashboard_15960160643010/Overview/viz/Covid-19DailyDashboard_15960160643010/Overview

[3] Audit Scotland, (2021). Covid-19 Vaccination programme. Available at: https://www.audit-scotland.gov.uk/uploads/docs/report/2021/briefing_210930_vaccination.pdf

Since the beginning of the Covid-19 pandemic Scotland also developed its flu vaccination programme to take account of the risks of concurrent infection of both Covid-19 and flu, as well as the extra pressures on health and social care services due to the pandemic. The flu vaccination programme is seasonal and takes place in the Autumn/Winter of each year and is routinely offered to: children aged 2 to 5, primary school aged children living with a health condition, young carers, pregnant women, those aged 65 and over, adults living with a health condition, unpaid carers, and healthcare workers. In Autumn/Winter 2021/22, where possible, those eligible were offered the option to receive both the flu and Covid-19 vaccine on the same day[4].

As of the 1st February 2022, flu vaccination uptake among eligible adults in Scotland was again higher than previous years, with 90% of those aged 65 years and over having received it.[5]

Research aims

Broad aims

The purpose of this research was to understand experiences of the Scottish vaccination programme (Covid-19 and flu) among people who may face additional barriers to vaccination in Scotland. The project aimed to address a gap in the current evidence base on uptake and experiences by providing up-to-date evidence on the chosen target groups. The findings are intended to support the Scottish Government, Public Health Scotland and NHS Health Boards to continue to ensure that the vaccination programme is as accessible as possible as Scotland develops its long-term plan for providing vaccinations across the country from early 2023.

The two broad aims of this research were to provide rich, qualitative data on:

- The user journeys of a specified set of key groupings within the population, taking into account highly practical experiences of vaccination, and providing information that can aid in planning and support for future vaccine rollout
- The wider experiences of vaccination, specifically why people decided to engage with or disengage from the vaccination programme.

Key research areas

Specifically, the research explored the following key areas:

- How individuals heard about the programme and the information sources used to make decisions about vaccination;
- What and/or who influenced this decision-making;

[4] Flu and COVID-19 vaccine roll-out update (October 2021) Available at: https://www.gov.scot/news/flu-and-covid-19-vaccine-roll-out/

[5] Scottish Government (2022). Flu vaccination programme success. Published 4 February 2022. Available at:

Flu vaccination programme success - gov.scot (www.gov.scot)

- The practical considerations taken into account to allow, or that prevented, take-up of vaccination;
- End-to-end experiences of getting vaccinated, from booking an appointment through to receiving the vaccine, and views on the support available (e.g. national and/or local helplines);
- Side-effects experienced by those taking up a vaccination and any impact of these on subsequent decision-making;
- Motivations to engaging with the vaccination programme or not;
- Impact - if any - of the introduction of Covid Status Certification, sometimes known as ‘vaccine passports’ or ‘vaccine certificates’ (domestic and international); and
- Likelihood of taking up future offers of a vaccine (Covid-19 or flu) and what - if anything - would encourage or improve engagement in future.

Methods

Overview

This research was qualitative in nature. Data was gathered from 81 participants using semi-structured depth interviews lasting one hour each (on two occasions two participants took part in a joint interview together which took slightly longer). Due to restrictions on face-to-face research at the time of fieldwork, all interviews were conducted via telephone or videocall and took place between 11 March and 3 May 2022. The interviews were structured by discussion guides (Annex A – available via ‘Supporting Documents’ on the Scottish Government website), with separate guides used for those who had engaged with the vaccination programme and those who had not.

A Research Advisory Group (RAG) was set up by the Scottish Government to oversee project progress and to advise as necessary. The RAG consisted of representatives from relevant Scottish Government analytical and policy areas, Public Health Scotland, NHS Health Boards, CEMVO Scotland, Glasgow Disability Alliance, MECOPP, the National Parent Forum of Scotland, Poverty Alliance, and the Scottish Youth Parliament. The research team worked closely with both the Scottish Government and RAG members on the design of research materials as well as on the presentation of findings in the final report. The RAG also supported the choice of key recruitment groups, alongside the PHS data, and with recruitment to the project.

Recruitment

A multi-pronged recruitment strategy was used to provide coverage across a range of population groups. Participants were invited to take part in the research in the following ways:

1. **Via a professional research recruitment agency.** This was carried out by telephone and involved a professional recruiter using a recruitment script written by the research team. This included information explaining the purpose

of the research and what taking part would involve, as well as a list of screener questions. It was explained that participation was entirely voluntary and that participants could change their mind about taking part at any stage.

2. **Through gatekeeper organisations.** This was done on an opt-in basis, whereby gatekeepers shared an information sheet with details about the research with the people they supported and who would be eligible to take part. The information sheet included instructions on how to get in touch with the research team for those who were interested in taking part. This approach helped to ensure participants could give fully informed consent by giving them time and space to engage with information about the research and decide whether or not to take part. Participants were informed that they could ask further questions by contacting a member of the research team directly. Information sheets were also provided in Easy Read format to communicate key information in a simple and accessible way for those who may have difficulties reading. A screener call was then carried out by a project team member using the recruitment script when individuals got in touch.

3. **From Ipsos' Parents Omnibus Survey recontact database.** A small number of participants who had taken part in the Parents Omnibus Survey and had agreed to be recontacted about further research were identified as being part of particular groups of interest. They were then called by a member of the research team and recruited in the same way described above.

All participants received £40 via BACS transfer or a high street voucher as a token of thanks for giving up their time to take part in an interview.

Sampling and recruitment

All participants were adults living in Scotland during the vaccination programme and were members of groups who may face additional barriers to Covid-19 vaccination. Recruitment was based on target quotas to ensure the sample included sufficient numbers of those in particular groups of interest. Quotas were divided into two tiers, with every participant having to satisfy at least one 'Tier 1' quota in order to be eligible to take part.

Tier 1 quotas included:

- those who had a disability or long-term health condition;
- members of specific ethnic minority communities, specifically those who identified as African, Black or Caribbean , Gypsy/Travellers, Pakistani or Polish; or
- those living in a deprived area, which was defined as postcodes falling into the first or second quintiles of the Scottish Index of Multiple Deprivation (SIMD).

Towards the end of the fieldwork period, Tier 1 quotas were flexed in order to boost numbers of participants who were less engaged in the vaccination programme. The quotas were flexed to allow anyone aged under 40 to take part in the research if

they had never engaged with the vaccination programme or they had only received one Covid-19 vaccination. Only four participants fell into this category.

Further ‘Tier 2’ quotas were set on age, parental or unpaid care responsibilities, rurality, being pregnant during the vaccination programme and low digital skills.

Eligibility for inclusion in the research was also based on participants’ attitudes towards getting a future Covid-19 vaccination and their views on vaccines in general. Since this research focuses on identifying barriers that can be reduced through targeted interventions, participants were screened out if there was no possibility that they would ever engage in the vaccination programme. This was determined in the initial screener call and applied specifically to those participants who said they were “certain not to get vaccinated” against Covid-19 or were “strongly opposed to vaccinations” in general.

Table 1 shows a breakdown of the demographics and other characteristics of interest within the sample. It should be noted that there was a high level of intersectionality between groups covered in the Tier 1 quotas listed above.

Table 1 - Sample profile

Quota group	**Number of participants**
Total:	**81**
Disability or long-term health condition	
Yes	35
Ethnicity	
Polish	11
Pakistani	9
African	9
Black or Caribbean	6
Gypsy/Traveller	7
White Scottish / White British	34
Other	2
SIMD Quintile	
SIMD1 (most deprived)	29
SIMD2	21
SIMD3+	31
Age	
Under 40	34
40+	46
Number of Covid-19 vaccinations	

None	15
One	9
Two	21
Three +	36
Experience of flu vaccination	
Received a flu vaccine in 2021/2022[6]	29
Eligible for a flu vaccine in 2021/2022 but did not receive one	25
Rurality[7]	
Rural	10
Urban	71
Parental responsibilities	
Parent of child(ren) under the age of 16	43
Caring responsibilities	
Has an unpaid care role	21
Pregnancy	
Has been pregnant during the vaccination programme	8
Digital skills	
Has limited digital skills/access to the internet	7
Gender	
Female	53
Male	28

Use of COM-B

A behavioural science approach was used to ensure that the full range of influences and experiences of vaccine user journeys were explored. The COM-B behavioural framework[8] was used to help structure the design, conduct and analysis of interviews.

COM-B facilitates interpretation of what is driving a given behaviour and the identification of related evidence-based interventions. It holds that for any behaviour to occur, a person must have the:

[6] All those who had received a flu vaccination in 2021/22 had also received at least one Covid-19 vaccination.

[7] Rurality was based on the Scottish Government 2-fold Urban Rural Classification, for more information see: https://www.gov.scot/publications/scottish-government-urban-rural-classification-2016/pages/2/

[8] On COM-B and the Behaviour Change Wheel, see: Susan Michie, Maartje M van Stralen and Robert West *The behaviour change wheel: A new method for characterising and designing behaviour change interventions* (2011) https://implementationscience.biomedcentral.com/track/pdf/10.1186/1748-5908-6-42

- **Capability:** Including the physical capability (for example, the skill, strength, stamina) and the psychological capability (knowledge or psychological skills to engage in the necessary mental processes)
- **Opportunity:** Including physical opportunity (as afforded by environmental factors such as time, resources, locations, cues) and social opportunity (as afforded by interpersonal influences, social cues and cultural norms that may influence the way we think)
- **Motivation:** Including reflective motivation (self-conscious intentions and evaluations) and automatic motivations (for example, emotional desires, impulses, inhibitions etc.)

Applying this behavioural framework provided for a rich understanding of the enablers and barriers to vaccination.

Approach to analysis

A systematic and thematic approach was taken to analysis. Interviews were summarised into thematic matrices developed by the research team and reviewed in line with the COM-B framework to identify the full range of motivations and barriers to getting a Covid-19 or flu vaccination. The data was then subject to further analysis to identify similarities or differences within different subgroups.

Scope and limitations

The value of qualitative research lies in its ability to provide rich, in-depth information, in this case on why people have or have not engaged with the vaccination programme. However, it is important to note that the prevalence of particular experiences in the wider population, or specific sub-groups, cannot be quantified. Therefore, this report avoids quantifying language, like ‘most’ or ‘a few’.

It is important to consider the timing of this research and take into account any contextual factors which may have impacted views of the current or future vaccination programme. This research was undertaken during the spring of 2022. Significant changes in Government’s response to the Covid-19 pandemic were taking place during this time and are likely to have impacted on how participants responded to the research.

With a high rate of Covid-19 vaccination achieved across most of society and a decrease in infection rates and mortality, several measures enacted during the peak of the pandemic were relaxed or removed. These included the relaxation of domestic Covid Status Certification on the 28th of February, moving from mandatory to voluntary use and the end of all international travel restrictions for people travelling into Scotland from the 18th of March[9] [10].

[9] Coronavirus (COVID-19) update: First Minister's speech - 22 February 2022 - gov.scot (www.gov.scot)

[10] International travel restrictions end - gov.scot (www.gov.scot)

Throughout April there was a winding down of testing, with free Covid-19 tests ending for most groups by the start of May[11]. The legal requirement to wear face coverings in shops, hospitality venues and on public transport in Scotland came to an end on 18 April and self-isolation guidance was replaced with 'stay at home' advice from 1 May[12].

The Highest Risk List (formerly known as the Shielding List), a list of people regarded as most vulnerable to serious Covid-19 health outcomes, was formally ended on the 31st May. This was in recognition of both the high rates of vaccination achieved, and the introduction of new and effective treatments for Covid-19[13]. During Spring 2022 there was an ongoing offer of Covid-19 vaccines for anyone who had not yet been vaccinated. This included offering a first vaccine for 5-11 year olds, and second booster people in certain high risk groups[14] [15].

These policy developments reflected a new phase of the pandemic, moving beyond measures like Covid Status Certification. The inclusion of questions on these measures in this research remains important, allowing effective evaluation and ultimately informing future policy.

Another factor impacting on fieldwork was the news coverage about parties and gatherings held at Westminster during lockdown. This had been going on since the story first broke in November 2021 and was mentioned by participants during interviews, particularly in relation to their current trust in government.

It is also important to bear in mind that not all participants received a first dose or subsequent doses at the same point in time. For example, those in younger age groups became eligible for a Covid-19 vaccine at a later date.

[11] Overview - Coronavirus (COVID-19): staying at home - gov.scot (www.gov.scot)

[12] New 'stay at home' guidance published - gov.scot (www.gov.scot)

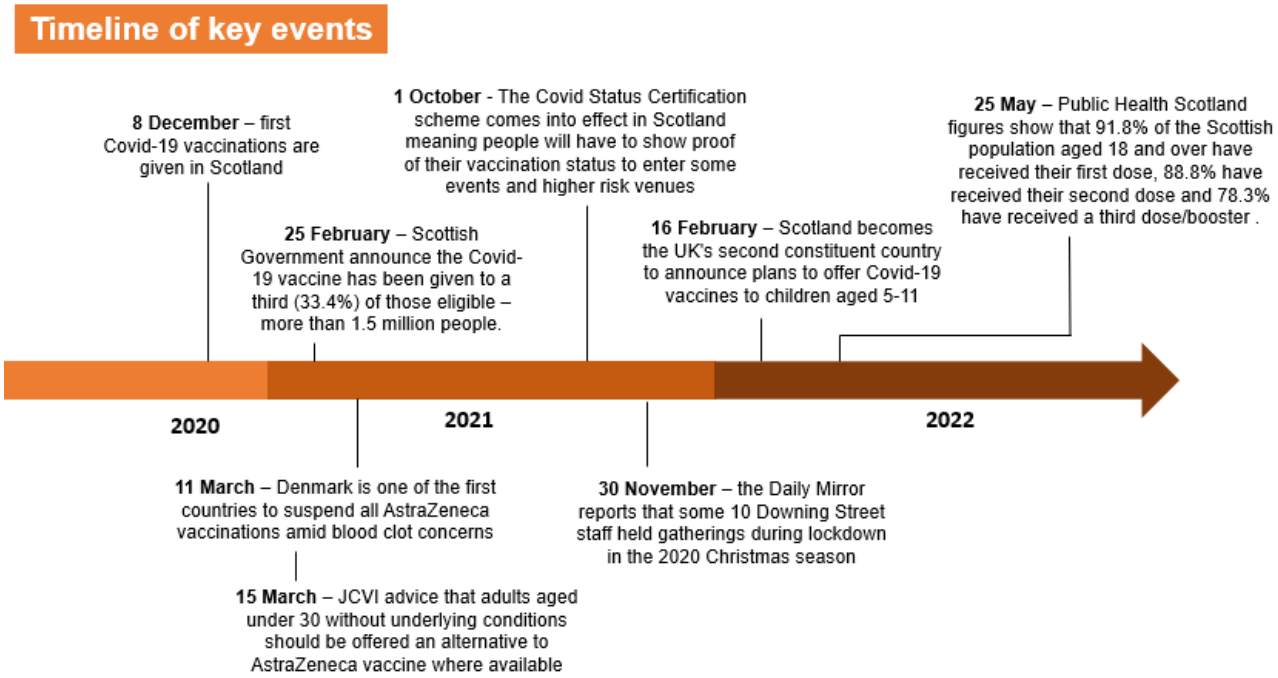
[13] End of the Highest Risk List - gov.scot (www.gov.scot)

[14] Vaccinations for all five to 11 year olds - gov.scot (www.gov.scot)

[15] Second boosters for at-risk groups - gov.scot (www.gov.scot)

Figure 1 shows a timeline of some key contextual events throughout the vaccination programme.

Figure 1 – A timeline of key events



Report structure and conventions

Quotes from participants are included throughout the report to illustrate points. Pen portraits and user journey maps are also used to give a sense of individual participants' experiences over time. Key characteristics are also included alongside quotes, pen portraits and user journey maps to further contextualise these views and experiences. To protect anonymity, participants depicted in pen portraits are identified using pseudonyms.

The remainder of this report is structured as follows:

- **Chapter 2: Getting a first Covid-19 vaccination.** This chapter describes the range of information sources used and participants' motivations and barriers to engaging with the Covid-19 vaccination programme. It also looks at their experiences of receiving a first Covid-19 vaccination, including practical considerations.
- **Chapter 3: Getting a second or third Covid-19 vaccination** examines the information sources used, motivations and barriers to getting a second or third vaccination, and experiences of doing so, including practical considerations.
- **Chapter 4: Getting a flu vaccination** considers how accessing information, motivations and barriers to engagement, and experiences differ for the flu and Covid-19 vaccination programmes.
- **Chapter 5: Views on children getting vaccinated against Covid-19 and the flu** examines parents' views and experiences of children receiving either or both vaccinations.

- **Chapter 6: Future considerations.** This chapter looks at the likelihood of engagement in future offers of the Covid-19 vaccination and the flu vaccination, as well as suggested improvements for a future vaccination programme in Scotland.
- **Chapter 7: Conclusions.** This chapter brings together the learnings from across the previous chapters under the domains of the COM-B model of behaviour. It considers each domain in order of influence on engagement with the current vaccination programme.

2. Getting a first Covid-19 vaccination

Key points

- **Traditional news media was the most widely reported information source on the vaccination programme. Other sources included:** social media, word of mouth, online searches and official websites, printed promotional materials, religious leaders, and formal channels such as employers or support organisations.
- **On the whole, trust was higher for news and official sources** (such as the Government or the NHS) than for social media and word of mouth**.**
- **Participants generally felt they had enough information to make an informed decision** and that the information was clear enough. However, there were exceptions to this.
- **Key considerations involved in the decisions around receiving a first Covid-19 vaccination included:** perceived personal health risk from Covid-19; the protection of others; the safety of the Covid-19 vaccine ;; pandemic restrictions; Covid Status Certification; wider attitudes (to vaccines in general and towards government and pharmaceutical companies); social influences from friends and family.
- **In regard to practical considerations, factors enabling engagement with the vaccination programme were**: having local appointments; being able to drive; a flexible/understanding work situation; having support with childcare; well-signed and stewarded venues; and invitation and reminder letters arriving on time to the correct address.
- **Practical barriers to engagement with the vaccination programme included**: venues far from home, accessibility issues for those with autism or sensory disabilities; inefficient queuing systems and long wait times; not receiving invitation or reminder letters; insensitive staff; or employers not being flexible.

This chapter looks at participants' first experiences with the Covid-19 vaccination programme in Scotland. It explores how participants first became aware of the programme and the information sources used, the motivations and barriers to getting a first Covid-19 vaccination, and the practical experiences of those who went on to engage in the vaccination programme.

Information sources and accessing information

This section deals with factors that fall predominantly in the 'capability' element of COM-B, as it looks at the ability of participants to access and understand the information needed to make an informed decision on whether to get a first Covid-19 vaccination. It covers the information sources used and the extent to which they were trusted, as well as the amount and quality of information accessed and any points of confusion or conflicting information.

Extent to which participants sought out information

Participants described different approaches to learning about the Covid-19 vaccination programme – while some actively sought out information, others were content to hear about the vaccination programme more passively through channels they already used.

Among those who did not seek out further information, reasons included having a high level of trust in the safety of vaccines in general, a desire (among those who had decided they wanted to get a vaccine) to avoid reading negative information that could make them feel anxious, or because the amount of information on the vaccine could feel overwhelming and confusing. There was a widespread view that information about the Covid-19 vaccine was 'everywhere' regardless:

> "I didn't bother myself because the stories were just too much, […] because the news was just too much, too much information going out there and I didn't want to get any further confused."

Participant, health condition or disability, Black Caribbean, woman, 40+, parent, No Covid-19 vaccinations

Information sources

Participants described a wide range of information sources where they had heard or read about the Covid-19 vaccination programme in Scotland before getting a first dose (or not getting one at all). Common sources included traditional media (such as television, newspapers and radio), social media, looking online for information, word of mouth from family and friends, general promotional material in the form of leaflets, letters or posters/billboards, and religious leaders. There were also cases where participants received information personally via promotion of the vaccine through more formal channels, for example from employers or educational institutions, from support organisations or from medical professionals.

The way each of these information sources was used, understood and the extent to which they were trusted varied and is discussed below.

Traditional news media

The most widely used source of information about the Covid-19 vaccination programme among participants was ‘the news’ in various forms, and this was typically how participants recalled learning about it for the first time. Participants had been highly engaged with the news in general during earlier stages of the pandemic, including at the time that the vaccination programme was announced.

Participants described accessing a broad range of news sources and media, including TV news programmes, news apps, newspaper articles both online (sometimes via links on social media) and in print, and listening to the radio. Those aged 40 and above were particularly likely to reference watching news on TV or radio. Various national newspapers were mentioned, including The Sun, the Daily Record and The Guardian. Media organisations tended to be those based in the UK or Scotland, such as BBC, STV or 5 News.

Aside from the news, participants got information from other traditional media including the televised daily Coronavirus briefings (both Scottish Government and Westminster briefings), TV adverts encouraging vaccination, and general TV or radio programmes, for example a radio phone-in.

Overall participants reported relatively high levels of trust in the news and other traditional media and seeing pictures or footage to back up information, for example seeing clips of Covid-19 patients in hospitals, could increase this further.

However, there was also a degree of scepticism about traditional mainstream media among some participants. Reasons for this centred on suspicions that the Government or the media can be biased and not share the ‘whole story’:

> “I'm not really sure of facts what [Nicola Sturgeon or Boris Johnson] just told to us are really right. They hide something, definitely they hide something, [the news] is not the whole story definitely.”
>
> Participant, White Polish, woman, 40+, 2 Covid-19 vaccinations

There was a feeling among participants who had concerns about getting the vaccination that their concerns were not addressed by the mainstream news media, and one participant found information shared on the news difficult to understand:

> “You just think how can you make that so quick – I think if they had maybe explained how they do it more, that would have helped […] you don’t really understand when you listen to the news, it’s just mumbo jumbo. You just need to trust them, but that’s risky.”
>
> Participant, White Scottish, woman, under 40, parent, 3+ Covid-19 vaccinations

Social media

Those who used social media said they had seen a great deal of information and discussion about the Covid-19 vaccine across many different platforms, including Facebook, Twitter, YouTube, Instagram, TikTok, WhatsApp and Reddit. While participants of all ages reported using social media, there was variation in the platforms used, with Instagram and Reddit exclusively mentioned under 40s.

Participants had seen both positive and negative information about the Covid-19 vaccine on social media. However, participants had come across more extreme anti-vaccination content on social media. While participants described a range of different anti-vaccination information and theories about the Covid-19 vaccine, specific claims discussed by Black African participants related to the vaccine being dangerous for Black people, which they had heard on social media, but also via word of mouth from friends and family living in Africa.

Trust in social media was mixed. On the one hand, there was a widespread belief that social media is not a reliable information source and is more likely to have incorrect or misleading information compared to official websites or professional journalism. There was a sense that a lot of the misleading information consisted of 'scaremongering' and tended to be negative. While this caused some participants to avoid certain social media platforms, others continued to use them and tried to judge what information was credible themselves. Even when participants acknowledged information on social media may not be true, however, it could still impact their feelings towards the Covid-19 vaccine by 'playing on' their minds. There was also a perception that social media is not a useful information source as it was associated with opinions as opposed to facts.

On the other hand, there were participants who valued hearing other people's opinions or experiences with the vaccine, particularly those who wanted to hear from people in a similar position to themselves. Examples tended to be for topics where there was a perceived lack of information elsewhere (for example on how the vaccine side effects impacted particular groups) or where participants had a lower level of trust in the traditional media.

Word of mouth

Participants had all discussed the Covid-19 vaccine with friends, family and others in their community to at least some extent. However, the nature of these conversations and the extent to which they were felt to be an influence varied considerably.

On the one hand, there were those who felt information they had heard from others was not always reliable, and participants used words such as 'rumours' and 'theories' to describe some of this.

> “Some people can just misinterpret these things happening or misinterpret them based on Biblical versions […] There are lots of theories, I can’t remember what half of them were.”
>
> Participant, Black African, woman, 40+, SIMD1, unpaid carer, parent, 3+ Covid-19 vaccinations

On the other hand, experiences of family and friends could be more trusted than other information sources, including official information. This was particularly the case where participants knew people who worked in the medical field, who were believed to have more expert knowledge or a higher capability to understand information relating to the vaccine. Personal experiences of family and friends getting the vaccine were also influential; for some participants this was so important that they delayed making a decision to get a first dose of the vaccine in order to wait and see how it affected other people first.

Trust in their own community rather than other information sources was also a strong theme for Gypsy Traveller participants. One participant explained that Gypsy Travellers were particularly distrusting of mainstream information from the ‘non-travelling community’ and relied more on others in their community for information:

> “Travellers are very judgmental people also because we have had to have this guard up our whole life, because we have been getting criticised from the outside world, like the non-travelling community, they criticise us, they judge us, they look down on us, so we have got this guard up all the time that we don't trust them.”
>
> Participant, Gypsy Traveller, woman, under 40, SIMD1, unpaid carer, No Covid-19 vaccinations

Online searches and official websites

Participants also researched the Covid-19 vaccination programme online. This ranged from general internet searches to peer-reviewed journals and articles.

Despite a sense that there is a lot of false information online, official websites, such as NHS, WHO or Scottish Government, peer-reviewed journals and information or views shared by medical professionals were typically trusted.

When participants’ trust in government was low, however, this could put them off using certain official websites connected with government. Other issues reported with accessing technical information included not being able to understand it (particularly in relation to scientific or medical journals). There were also participants who were unable to access this kind of information due to difficulties with reading, particularly among the Gypsy Traveller community.

Printed promotional materials

Participants had seen promotional material with information about the Covid-19 vaccine and this included leaflets, letters or posters/billboards. Not everyone remembered exactly where they had seen this type of information, but the information in the post consisted of official information either in the 'blue envelope' invitation letters or government information for those who had been instructed to shield during the pandemic. Those who were shielding also recalled receiving text messages with information about the vaccine. One participant who was a member of the Gypsy Traveller community recalled a nurse visiting the caravan site and handing out leaflets about the vaccine.

When information came directly from the government or the NHS this typically increased its credibility. For example, one participant felt the information in their blue envelope was easy to understand as it explained why the vaccine was important and broke down information about getting vaccinated 'step by step'. However, for those who were already reluctant to get the Covid-19 vaccine, this type of information did not seem to cut through. For example, some participants described ignoring letters such as the 'blue envelope' letter.

Religious leaders

Religious and community leaders were another information source, particularly regarding moral questions such as whether the vaccine was permitted: for example, one Pakistani participant specifically asked a local imam whether the Covid-19 vaccine could be taken when fasting during Ramadan. Participants described hearing both positive and negative information about the vaccine from religious leaders.

Other formal channels

There were also cases where participants received information personally via promotion of the vaccine through more formal channels, for example from employers or educational institutions, from support organisations or from medical professionals (such as a general practitioner). Those who worked in health or social care were particularly likely to have received information about the vaccine at work, as they were encouraged to get vaccinated due to working with vulnerable groups. Participants who got information from support groups or a doctor tended to be those with a disability or health condition.

While participants trusted these information sources in general, they also reported engaging with them critically and that they did not always follow the advice given. There was particularly high trust in information from medical professionals.

Access to information

Views on the quality and availability of information varied. Participants generally felt that they had enough information to make an informed decision and that the information was clear enough. However, those who were more cautious about accepting the vaccine felt that there was not a great deal of information or that it was difficult to find, while others felt the amount of information was overwhelming.

Among participants living in more deprived areas (SIMD 1 or 2), information volume and/or quality was a key theme. Within this group though, those who had engaged with the vaccination programme tended to feel that they had enough information overall while those who were disengaged tended not to.

It should be noted that participants in the sample were typically fairly confident at speaking English (despite translator services being offered). Therefore, language barriers did not come out strongly in this research, but this does not mean this was not an issue in the general population.

Motivations and barriers to engaging with the Covid-19 vaccination programme

This section deals with factors that fall predominantly in the 'motivation' element of COM-B, as it looks at participants' decision-making processes.

Participants described a wide range of motivating factors and barriers when discussing their decision to get a vaccine. Many of these influences on decision making were motivating for some participants but off-putting for others. Reflecting this, influences on decision making are discussed thematically below rather than being separated out into facilitators and barriers.

Key influences on decision making included: perceived personal health risk from Covid-19; perceived risk to others; pandemic restrictions (including Covid Status Certification); social influences; trust in government and the pharmaceutical industry; perceived safety of the Covid-19 vaccine, perceived effectiveness of the Covid-19 vaccine; a sense of duty; and pressure from work.

Personal health risk

Perceived personal health risk from catching Covid-19 was strongly associated with the decision whether or not to get a Covid-19 vaccination.

Those who were worried about the effects of catching Covid-19 on their personal health described this as a motivation to take up the vaccine, so that they would be protected. This was a key factor for those with a disability or long-term health condition (particularly when participants had respiratory problems such as COPD).

> "If I got the virus, it could be a death sentence for me."
>
> Participant, has COPD, White Scottish, man, 40+, 3+ Covid-19 vaccinations

> “[I wanted to get a Covid-19 vaccine] to save taking the Covid and being really ill, cause when you seen it on TV and all these people trying to breathe it was awful, and that scared you, thinking oh, even though I've not got problems breathing you know, to see that on TV it was so sad, I would hate to be in that position.”
>
> Participant, disability or health condition, White Scottish, woman, 40+, unpaid carer, SIMD1, rural, 3+ Covid-19 vaccinations

However, participants with disabilities or health conditions could also be particularly anxious about potential side effects of the vaccine, creating a tension.

Among those with caring responsibilities, concern about becoming ill with Covid-19 was heightened, due to the impact it would have on those who depended on them.

> “I thought if I get it I am going to end up in hospital for weeks and months, and how is my family going to cope? My kids, you know, they don't have anybody else, so how are they going to cope?”
>
> Participant, disability or health condition, Pakistani, woman, 40+, SIMD1, 2 Covid-19 vaccinations

In addition to concern over perceived physical health risks, there were participants who were further motivated to get vaccinated to reduce mental health risks posed by Covid-19. They felt that getting the vaccine would help to reduce their own anxiety about getting infected with the virus.

For participants who were not worried, or less worried, about catching Covid-19, personal health risks were much less of a motivator. Personal health risk could also be viewed as a reason not to get a vaccine due to a desire not to take any ‘unnecessary’ or ‘extra’ healthcare interventions.

Participants who were less worried about catching Covid-19 typically saw themselves as being fit and healthy, with a strong immune system. Those aged under 40 and without a disability or long-term health condition were particularly likely to feel at low risk from the virus.

> “We often got told as younger people we have better immunity to Covid, so then initially there were times [I thought] will we really need this though?”
>
> Participant, Pakistani, man, under 40, SIMD1, 3+ Covid-19 vaccinations

There were exceptions though, such as a young person who had witnessed their sister (who was also quite young) suffer severe symptoms from Covid-19.

Aside from personal health and fitness, there were participants who did not see Covid-19 as being a severe disease. There was also a view that it was similar to seasonal flu. Even when these participants were aware of people who had died or suffered severely from Covid-19, there was an assumption that other complications or underlying conditions could explain this.

> “I knew people who died from Covid and didn't get vaccination as well, because they didn't, similar like me, they didn't value that work, and few of them was younger than me or in my age and get Covid and die. But I think, in my personal opinion, it wasn't Covid, like [that was] only one reason, that [they had] some other disease.”
>
> Participant, White Polish, man, 40+, parent, No Covid-19 vaccinations

Personal experience of having had Covid-19, or knowing close friends or family who had, was another important influence on perceived personal health risk from the virus. In relation to the decision whether to get a first dose or not, this was a more influential factor for disengaged participants, since engaged participants had often made up their mind earlier on in the pandemic when fewer people had had Covid compared to Spring 2022 when fieldwork was taking place. This factor was also influential on decision-making for people aged under 40, as they became eligible for the vaccination later in the pandemic.

> “Because my age group was quite far down it did give me more time to think about it […] it was reassuring that they have obviously had it [the vaccine] before me and nothing has happened.”
>
> Participant, Disability or health condition, White Scottish, woman, under 40, rural, 2 Covid-19 vaccinations

Disengaged participants tended not to have had particularly negative experiences of Covid-19, and among those who had not picked it up so far there was a sense that they were naturally less likely to pick it up and get it in future.

> “I keep telling people I'm a living testimony, I don't wear masks, and I have been around [...] I've not had it.”
>
> Participant, Disability or health condition, Black African, woman, under 40, rural, No Covid-19 vaccinations

However, an exception to this was the experience of one disengaged couple who had particularly bad symptoms when they caught Covid-19, and were beginning to reconsider their decision on the vaccine in order to avoid getting it again in future.

Men who had decided not to get vaccinated were more likely to base their decision on feeling at low risk from catching Covid-19, while women who had decided the same were more focused on the perceived health risks from getting vaccinated (concern about side effects is discussed in more detail later in this section).

Protecting others

Protecting others from getting Covid-19 was another important factor that encouraged participants to get a first Covid-19 vaccine. This related to a belief at the time of making the decision that the vaccine would reduce their risk of spreading the virus. This was particularly relevant to those with family members who were considered vulnerable. It was also important for those who interacted with vulnerable people at work, for example those who worked in healthcare.

> "I'm a carer for one of my aunties, so that's why I thought that for their sake as well I need to make sure that I am protected and not giving it to them."
>
> Participant, Pakistani, man, under 40, SIMD1, 2 Covid-19 vaccinations

As well as protecting those immediately around them, participants spoke about wanting to get vaccinated to protect wider society. This was sometimes perceived as a duty, the 'right' thing to do, or as a way in which participants could contribute to the wider pandemic response. While this could be based on personal or religious beliefs, there was also a sense that official messaging around the Covid-19 vaccination had encouraged people to get vaccinated as a way to take responsibility and protect others. While there was a desire to prevent others from suffering from Covid-19, there was also mention of reducing the spread of Covid-19 in order to reduce the strain on the NHS.

There was particular mention of duty to others and a desire to protect family members and the wider community among Pakistani participants.

Pandemic restrictions and the impact of Covid Status Certification

Among engaged participants, there was some hope that getting a Covid-19 vaccine would reduce the need for pandemic restrictions or future lockdowns, and help things return to 'normal'. However, views on Covid Status Certification, or "vaccine passports", were more mixed.

On the one hand, Covid Status Certification for international travel or accessing events in Scotland could be a significant motivator for getting vaccinated, and for some participants this was the sole reason for getting a first vaccine. This was particularly the case among younger people below the age of 40. International Covid Status Certification was an important factor for those from another country or with family living abroad, for whom traveling was especially important.

However, views on these requirements were mixed: while some participants in this situation did not have strong feelings on getting vaccinated, others were unhappy as they felt it meant they needed to get vaccinated against their own will.

Furthermore, Covid Status Certification was not sufficiently motivating for disengaged participants to get vaccinated. These participants typically felt that the risk to their personal health from getting vaccinated was a more important factor on which to base a healthcare decision than being able to take part in leisure activities or holidays. These participants resented feeling forced to get vaccinated, and the fact that the vaccine needed to be incentivised or 'sold' to the public could cause people to further question whether it was in their best interests. It also raised concerns about being tracked by government.

> "The fact that we need to get it to travel, it really bugged me. I felt like, 'well why should we all need [a Covid-19 vaccine], if we don't want to get something into our body we're not understanding?' […] you feel like you're being sold it, […] when you feel like somebody else is controlling [your decision] it puts you off."
>
> Participant, Gypsy Traveller, woman, under 40, SIMD1, unpaid carer, No Covid-19 vaccinations

> "If you get the vaccine you've got the passport, the vaccine passport, there is another thing, the government want to keep track of you, there is another way of infringement of your rights they will have contact with you wherever you go, whatever you do. So, that was another thing saying, well I don't want that."
>
> Participant, Pakistani, woman, 40+, SIMD1, No Covid-19 vaccinations

There was also a view among disengaged participants that vaccine-related restrictions would not greatly affect them, either because they did not wish to do things that required certification (either domestic or international), a belief that restrictions would only be in place for a short time, or that they felt they could get around these rules to a certain extent.

Attitudes towards vaccines in general

Attitudes towards vaccines in general fed into participants' views on the Covid-19 vaccine. There were participants who were strongly in favour of vaccines in general and described never having any serious doubts about getting a Covid-19 vaccine. They considered themselves to be very pro-science and, in some cases, had family histories that had convinced them of the importance of accepting vaccines.

Participants who were more wary of vaccines in general were less willing to engage with the Covid-19 vaccination programme. This type of belief was typically a strongly held belief and not easily changed.

Social influences

Social influences could act as a direct reason for getting a first Covid-19 vaccination. Participants described how friends or family had encouraged them to get vaccinated, especially if they were seen to be vulnerable. In some cases, participants recalled other people actively intervening to ensure they got vaccinated: for example, one person had a friend book their appointment for them while the wife of another had accompanied him to the vaccination centre to make sure he got vaccinated.

Participants also heard negative opinions on the vaccine, but this was not a direct reason for deciding not to get vaccinated.

Some participants from ethnic minorities described higher levels of distrust in the Covid-19 vaccine within their communities, although they did not feel greatly influenced by this themselves. There was a view among Polish participants that the wider Polish community was generally sceptical of the Covid-19 vaccine. Pakistani participants also discussed their community's attitudes, with one person linking unwillingness to get vaccinated among older generations to the impacts of the British Empire and a lasting distrust in the British establishment. There were Black African participants who described suspicion of the Covid-19 vaccine among people living in Africa as well as the wider African diaspora.

> "The people there [in Poland], it is very obvious the people that don't believe in Covid and don't believe in vaccination."
>
> Participant, Disability or health condition, White Polish, woman, under 40, parent, SIMD2, 3+ Covid-19 vaccinations

> "I come from an ethnic minority background and with that there's a lot of stigma around vaccinations."
>
> Participant, Pakistani, man, under 40, unpaid carer, 3+ Covid-19 vaccinations

Among disengaged participants, there was a tendency to avoid discussing the Covid-19 vaccine with friends and family who disagreed with them since it could cause people to get angry at their decision.

There were also participants who were encouraged by hearing about public figures such as the Queen or celebrities taking the Covid-19 vaccine. However, there was also a view that this could seem inauthentic, as one participant imagined celebrities had been paid to promote the vaccine, while another highlighted that the vaccine impacts people differently, so did not find this type of promotion convincing.

Attitudes towards government and the pharmaceutical industry

Participants' attitudes to the government and the pharmaceutical industry could shape their decision-making processes about the vaccine. When participants trusted the government and their advice on the Covid-19 vaccine, this facilitated engagement with the vaccination programme. When there was distrust, this tended to be a more significant factor and a barrier to engaging with the vaccination programme, particularly among disengaged participants. Distrust in government was particularly discussed by those aged over 40, Pakistani and Polish participants.

There was some concern that the UK and Scottish Governments were so focused on promoting the vaccine that they refused to acknowledge any negative side effects and were sharing biased and incomplete information. The sense that any negative information had been 'swept under the carpet' caused participants to feel distrustful and worry about being able to make an informed decision.

> "The government was pushing for one thing and if you want to have all the information from both sides you have to do the work […] because just going with what government said, it was all perfect and pink and pretty and it's not like that."
>
> Participant, Disability or health condition, White Polish, woman, under 40, parent, SIMD2, 3+ Covid-19 vaccinations

> "During the pandemic I think some scientists and all that research when they are doing on the vaccination programme can be like maybe manipulated by government […] they tell people propaganda."
>
> Participant, White Polish, man, 40+, parent, No Covid-19 vaccinations

There was also scepticism around the motivation of governments to encourage widespread vaccination, with participants suggesting that the government wanted to roll out the vaccines quickly for political reasons. Doubts were expressed that the UK Government was being honest about the scale of threat posed by Covid-19, due to perceptions that MPs did not take pandemic restrictions seriously.

> "I think any government hasn't [any] idea how to deal with Covid [...] in my opinion, that vaccination was like [an] attempt to do something, that maybe can help, but we are not sure, we will see. So I wasn't sure if that was okay."
>
> Participant, White Polish, man, 40+, parent, No Covid-19 vaccinations

> "Before I didn't have a problem with vaccines, not that I do, but […] with this Covid vaccination they actually made the word vaccine a total put off for me because like I said it was too controlling."
>
> Participant, Disability or health condition, Black African, woman, under 40, rural, No Covid-19 vaccinations

When participants referenced distrust in the pharmaceutical companies that manufactured the Covid-19 vaccines, key concerns included worries that they were primarily focused on making money and not producing the best quality vaccine, that there was a lack of accountability due to not being able to sue companies over vaccine side effects, and concerns about individual companies.

Pressure from work

Among those who worked in public-facing roles, especially those working in health or social care and with vulnerable adults, there was some experience of feeling pressured to get vaccinated from their employer. However, this was not a key driver and participants in this situation tended to get vaccinated for other reasons.

Perceived safety of the Covid-19 vaccine

While there were participants who did not question the safety of the Covid-19 vaccine, safety concerns were the most significant barrier to getting vaccinated, even among those who had decided to get all doses they were eligible for. This was a particular concern among those living in more deprived areas (SIMD 1 or 2).

This centred on three main worries: that the Covid-19 vaccine was new and therefore long-term side effects were unknown, that it had been developed very quickly and therefore may not be as high-quality and rigorously tested as other vaccines, and that there were risks of dangerous side effects.

There was widespread acknowledgement that the Covid-19 vaccine was new and this caused some to question how thoroughly it had been tested. There were participants who had delayed getting a first dose to ‘wait and see’ how the vaccine affected other people, while there were some concerns that the vaccine was effectively still being trialled, with participants describing feeling like a ‘laboratory rat’ or a ‘guinea pig’. Participants cited the detection of a rare side effect (blood clots) of the AstraZeneca vaccine during the vaccine rollout as evidence that there was still unknown information about the vaccine and its side effects. It was also highlighted that long-term impacts of getting vaccinated were currently unknown.

> “It was a new thing that we know nothing about, we’re winging it. ‘Here are four to five vaccines available because nobody knows what’s going to work or not’. I don’t feel confident in that. They tried to claim they know what they’re doing but they don’t have a clue.”
>
> Participant, White Scottish, man, under 40, No Covid-19 vaccinations

When participants gained a better understanding of the development process this could counteract these worries, for example one person highlighted how they were reassured after learning that the vaccine development process was based on the development of previous similar vaccines and was not completely new.

Concern about side effects

The risk of side effects from the Covid-19 vaccine was a strong theme when it came to barriers to getting a first dose, for both engaged and disengaged participants. Concern mostly related to severe or long-term side effects, but there were also those who were nervous about temporary or milder side effects.

Commonly discussed, particularly by women aged under 40, were concerns about impacts on fertility, menstrual cycles and impacts on unborn babies or pregnancy. There was a view that information on this could be hard to find, and some concerns that advice for pregnant women had changed regarding the vaccine.

Risks of blood clots (specifically in relation to the AstraZeneca vaccine) and heart issues were another theme and could be very frightening, especially to participants who had related conditions such as heart issues or risks of high blood pressure.

> "The point of a vaccine, it's to save your life, but a lot of folk don't want it, don't want to take it because of all the rumours. I was the same when I heard the rumours, like blood clots and I was like, oh, I might die if I get this jag."
>
> Participant, Disability or health condition, White Scottish, man, 40+, parent, 3+ Covid-19 vaccinations

There was also a fear of unexpected or unpredictable side effects, for example, whether the vaccine might trigger previously undetected underlying conditions in individuals.

> "Who knows, the people who got vaccinated and died, maybe the vaccine triggered something else? One of our family friends, a doctor, had Covid vaccines early on [and it] brought out some underlying health condition in him."
>
> Participant, Pakistani, woman, under 40, rural, 2 Covid-19 vaccinations

Temporary side effects, for example getting flu-like symptoms after getting vaccinated could also be off-putting. For those with health conditions, the prospect could be alarming. However, for others the concern was more that this would be unpleasant but also inconvenient, especially in terms of carrying out day to day responsibilities such as childcare or work.

> "Not a big concern but just the symptoms, 'would I recover quickly?'. 'Would it affect my wellbeing?'. 'Would I be able to go to the gym?'. Silly things, not that big, but you hear people saying 'oh I sorted out dinner for the next two nights because I'm getting my vaccine', because they didn't know how they'd feel."
>
> Participant, Pakistani, woman, under 40, rural, 2 Covid-19 vaccinations

There was a worry among those with a disability or health condition and those from ethnic minorities that the Covid-19 vaccine had not been tested on enough people or a diverse enough range of people.

> "[I would consider getting vaccinated if] they had done research on a wider range of people with different health issues, different skins, different backgrounds."
>
> Participant, Disability or health condition, Black African, woman, under 40, rural, No Covid-19 vaccinations

Fears around side effects were influenced by hearing about other people's experience with the vaccine. Those who knew others who had been vaccinated without serious side effects found this reassuring, while hearing about negative experiences from people who had recently been vaccinated could be alarming.

> "People that I know […] had some kind of reaction to it. Someone that my mum works with had a reaction to it as well, and that […] made me quite frightened."
>
> Participant, White Scottish, woman, under 40, No Covid-19 vaccinations

Another mitigating factor was when participants looked into the probability of experiencing certain side effects: for example, while the risk of blood clots was frightening, there were participants who felt comfortable getting vaccinated nonetheless due to the very low probability of this side effect occurring.

Participants who were concerned about side effects from the Covid-19 vaccine typically weighed up the perceived risks of such side effects against the perceived health risks from becoming infected with Covid-19 while unvaccinated. This meant that side effects could act as a particular barrier to those who saw themselves as being at low risk of severe Covid-19, such as younger people.

> "I thought I'm not in the age demographic that Covid would be really bad for me and I don't have any sort of underlying health conditions, so I felt as if I would personally rather take my chances with Covid than I would with the vaccine."
>
> Participant, under 40, White Scottish, woman, No Covid-19 vaccinations

Participant story: Hamza

Hamza is a young Pakistani man living with his parents and younger sister in Aberdeen. He has worked from home since the first lockdown. He isn't too worried about catching Covid-19 himself but has been careful throughout the pandemic to try not to pass it onto his parents, who both have long-term health conditions.

He didn't seek out much information on the vaccines, but he did read about it in the newspapers and had lots of conversations with people he knew. He was unsure about getting vaccinated at first, as the vaccine had been developed quickly.

"Not that I ever wanted to not take it, maybe it was a bit delayed [...] [I] was like 'oh it came out a bit too fast'."

When he did decide to get the vaccine, his motivations were to protect others (particularly his parents) and to allow him to go to football games and other events.

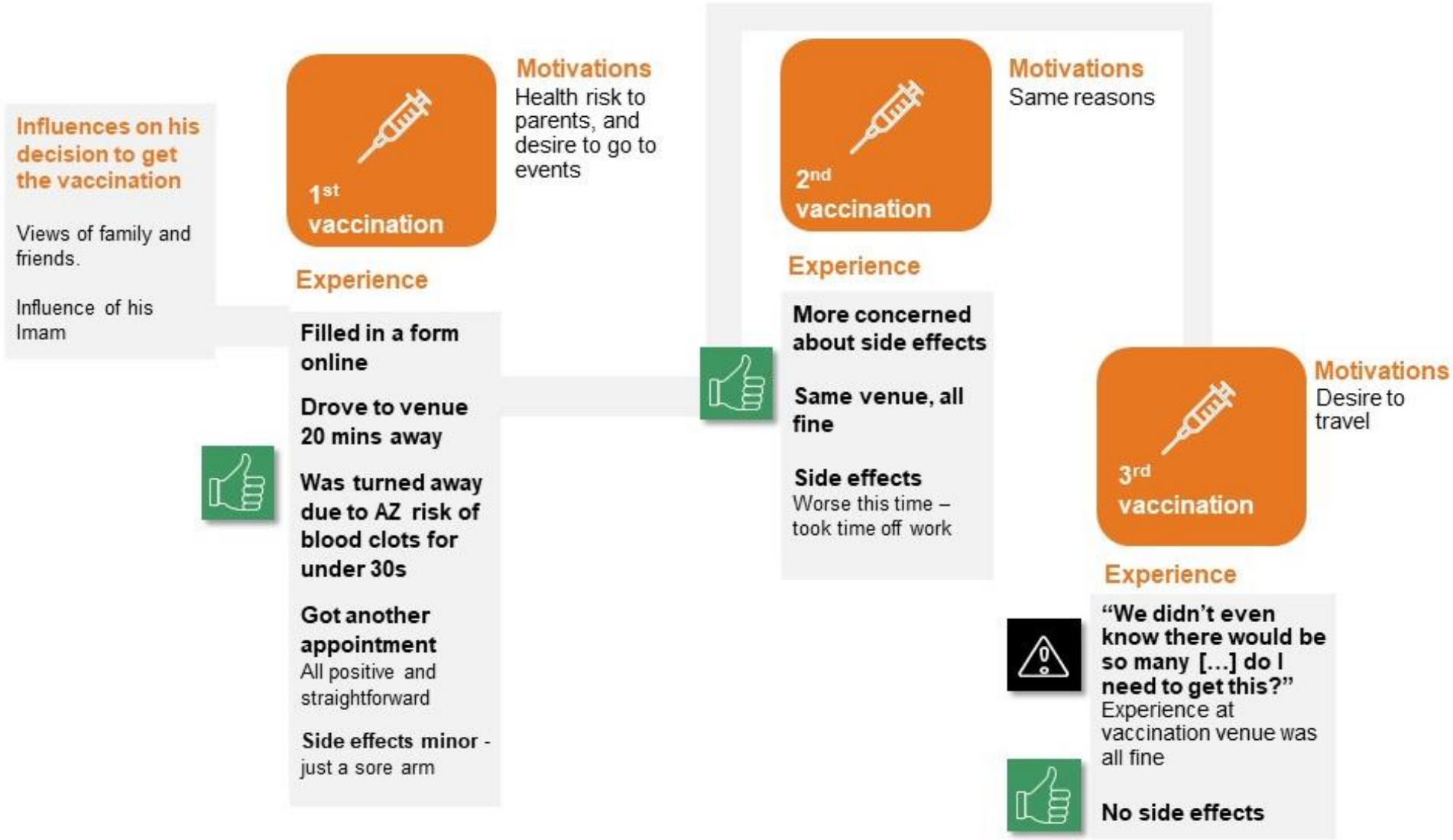
He also felt a sense of duty as a practicing Muslim to take care of the people in his close-knit community. His Imam had encouraged everyone at Friday prayers at the mosque to get it and had cleared up a lot of misconceptions.

When the booster was introduced, Hamza felt frustrated. It didn't make sense to him that he needed another vaccine, only a few months after his second dose.

"I've had a Covid vaccine, I've had a second dose as well, I've had Covid multiple times, I've got some antibodies there, so why do I need another booster?"

However, he did eventually decide to get it because he wanted to travel soon. Hamza's user journey is illustrated overleaf.

User journey: Hamza



Experiences of receiving a first Covid-19 vaccination and practical considerations

The findings reported in this section largely relate to the opportunity element of the COM-B behaviour change model. The opportunity element includes both social and physical enablers – the focus in this section is on the physical factors (i.e. the physical opportunity afforded by the environment involving time, resources, locations, environmental cues, and physical ease).

Scheduling the first Covid-19 vaccination appointment

Participants were invited to a vaccination appointment in various ways:

- a 'blue envelope' in the post
- emails with a link to book an appointment through their work or study in a clinical setting (for example, for participants who worked for the NHS)
- phone calls or texts from GP surgeries (for those who had existing health problems and needed to receive their vaccination in a GP or hospital setting).

There were also participants who had not received an invitation for their vaccination, and instead had to proactively seek out an appointment themselves. While some participants did not feel this was a problem, for others it was frustrating.

Other participants chose to attend 'drop-in' vaccination sessions instead, and either ignored their original appointment or had not received an appointment to begin with.

Participants typically reported that their appointment was convenient enough for them in terms of location and time. Where participants did find the location of the vaccination appointment inconvenient, this largely related to the venue being far away from their home. This was a particular problem for those living in rural locations, and those with a long-term illness or disability.

Those living in remote areas reported that the venue for their vaccination appointment was further away than they would ideally like – for example, they were invited to get vaccinated in a high school in the nearest town rather than their local village's GP clinic. For participants (or their family members) who did not have a vehicle or a driving license, this had caused difficulty as they were dependent on lifts from people they knew, or on often unreliable public transport links.

> "If [my teenage children] would be able to walk safely, they would probably [get vaccinated], yes. But the distance, planning with others, you know, a lot of planning [around lifts from parents] and oh, it is just difficult to say, because we are staying where we are staying. The connection to the town is horrendous"
>
> Participant, White Polish, woman, 40+, rural area, 3+ Covid-19 vaccinations

> "[If you don't drive], then you have to rely on buses and our bus system is a joke. From my point of view, it was fine, but it could have been better if it was in the village because that way I could have walked and been back quicker."
>
> Participant, white Scottish, woman, 40+, rural area, 3+ Covid-19 vaccinations

Those with a disability or long-term health condition had sometimes received an initial invitation to a venue which would be difficult or impossible for them to travel to, due to their health conditions. However, these participants were generally able to reschedule to a more suitable location.

> "My appointment came through and it was for [location]. And I thought, right, so I'm getting this appointment through, I've got really bad concentration and memory problems. And you're sending me somewhere I've never been before, and I've got to be there at 9:15 in the morning."
>
> Participant, health condition or disability, woman, 40+, 1 Covid-19 vaccination

Although there were local authority and health board schemes offering support for people to travel to their vaccine appointment, these were not mentioned at all by participants, indicating a lack of awareness of these schemes. Where necessary, participants were able to reschedule their vaccination appointment to a more convenient time/location. Those who used the online system to change their appointment found it to be an efficient and straightforward process. However, there were participants who were unaware that they could have changed their appointment, and others who tried to change their appointment but were unable to find a suitable alternative appointment.

Attending the first Covid-19 vaccination appointment

On the day of the appointment, participants reported a range of emotions:

- Excitement and eagerness to receive the vaccine – looking forward to being less at risk, and the 'start of the end' of the Covid-19 pandemic
- Anxiety about Covid-19 exposure at the vaccination centre (particularly high-risk participants, who were typically vaccinated earlier in the pandemic, during periods of higher risk)
- Worries about possible side effects
- Nervousness about the needle and the injection
- Unease related to whether they should accept the vaccination or not.

Other participants experienced no particularly strong emotions on the day; they felt 'fine' about getting the vaccination, and 'just wanted it done'. There were also participants who felt a mix of positive and negative emotions around receiving their first vaccine – for example, they were pleased at the thought of having more protection against Covid-19, but also anxious about being in a busy venue.

Participants in work were generally able to schedule their appointment around their work commitments without too much trouble. There were participants who were furloughed at the point at which they were invited to be vaccinated, while others either took time off work or had the appointment on a day they were not scheduled to work.

There were also participants who found that their employers supported them to go and get vaccinated – they were able to take a longer lunch break, or, for those employed by the NHS, get vaccinated at their place of work. However, others had employers who were less understanding.

> "I think I took half an hour extra off for lunch or something like that which they really weren't very happy about, but I just suppose in any hospitality right now they run everything really, really, tight, so yes, it just feels like they could have had an extra person in on a few shifts so that we could go and get our vaccine, that would have been the best time for us to do it."
>
> Participant, white Scottish, woman, under 40, 2 Covid-19 vaccinations

Caring commitments did not appear to be a major barrier to being vaccinated. Parents and carers described having family or friends help out with childcare or taking children along to vaccination appointment with them.

Overall, participants spoke positively about the venue and the staff at their first vaccination. The venues were generally perceived to have been well organised, with short wait times. Staff were considered knowledgeable, competent, friendly and helpful. Participants appreciated how professional the staff were, and it was particularly reassuring for those who were more nervous about being vaccinated.

> "They were very nice, very friendly. Like nurse just explain everything what she will do, how she just give me the vaccination, what can I expect after, kind of side effects, what can I feel, and of course that was like they ask me to stay like 15 minutes longer to see how I feel, if something wrong just let them know."
>
> Participant, White Polish, woman, 40+, 3+ Covid-19 vaccinations

However, there were also exceptions where participants had experienced more negative interactions with staff and the venue. For example, one participant felt that the nurse was 'short' with them when they asked for more information about which vaccine they were going to receive and for more time to decide whether to accept it. Another participant described how she felt embarrassed and annoyed when a staff member in a receptionist role loudly said that she must have a health condition as she was not part of the older age group which was being vaccinated at that point. A third participant had a negative experience where he had found the injection itself very painful and the nurse had said that this was his fault for moving. These negative experiences could present a barrier to future engagement with the vaccine programme, as discussed in the next chapter.

Concerns were also raised about venues. These included: a lack of privacy; a feeling that the venue was too busy and not well-managed for Covid-19 safety; the venue being confusing and poorly signed; the venue feeling very clinical and frightening; and the queue process being disorganised.

> "Then I got to the main hall, there was, like, 15, 20 people in front of me and it just looked like…it was like a factory, there was so many little seats, so many little desks, and there was various people doing [the injections]. […] It was too open, people could hear, there was no privacy."
>
> Participant, Pakistani, woman, 40+, 2 Covid-19 vaccinations

There was also a view that the vaccination centres themselves were not always accessible for people with disabilities. For example, one participant who was blind said that if she had not been able to attend with the support of family, it would have been impossible for her to navigate on her own. She also found it frustrating that she was invited to the vaccination by letter, a format inaccessible to her. Another participant felt that staff at the venue were not equipped to support her son with autism.

After the vaccination, positive emotions felt by participants included happiness, relief, and a feeling that it was 'a step in the right direction'. There was also a feeling of togetherness and being part of something bigger. However, there were participants who still felt uneasy, scared, and uncertain about whether they had made the right choice. Participants also reported fear that they might develop side effects.

For those who did experience side effects, these ranged from minor symptoms (flu-like symptoms or aching arms) to more serious ones (allergic reactions to the vaccines, flare-ups of existing health conditions). There were also participants who experienced no side effects from their vaccination. As will be discussed later, having side effects influenced participants' decisions about whether to accept their second and third vaccinations.

Reflecting on the first Covid-19 vaccination appointment

Participants were asked to reflect on what could have been improved about their first Covid-19 vaccination. There were participants who felt that nothing could have improved the experience – everything had been very well organised and they had been treated well. Participants recognised that the vaccination programme had been efficient overall in vaccinating large numbers of people in a short space of time. This was taken into account when suggesting improvements.

For those who did have suggestions for improvements, these included a feeling that the venue should have been less busy, so that the queues moved more quickly and the risk of Covid-19 transmission was lower.

As mentioned in previous sections, there were also participants who had a preference for a certain vaccine over another. These participants tended to be more hesitant about accepting vaccination and had sought out information on the relative benefits and possible side effects of the different vaccines available. Reflecting this, there were participants who suggested they would have liked to have been told in advance which vaccine they would receive or be given a choice. There was also a desire for more information about possible side effects at vaccination venues.

Lastly, as discussed, a key desired improvement was that vaccination could take place closer to home – particularly for those in rural areas without good public transport links, and for those with long-term health conditions that made it difficult for them to travel to get vaccinated.

Participant story: Jessica

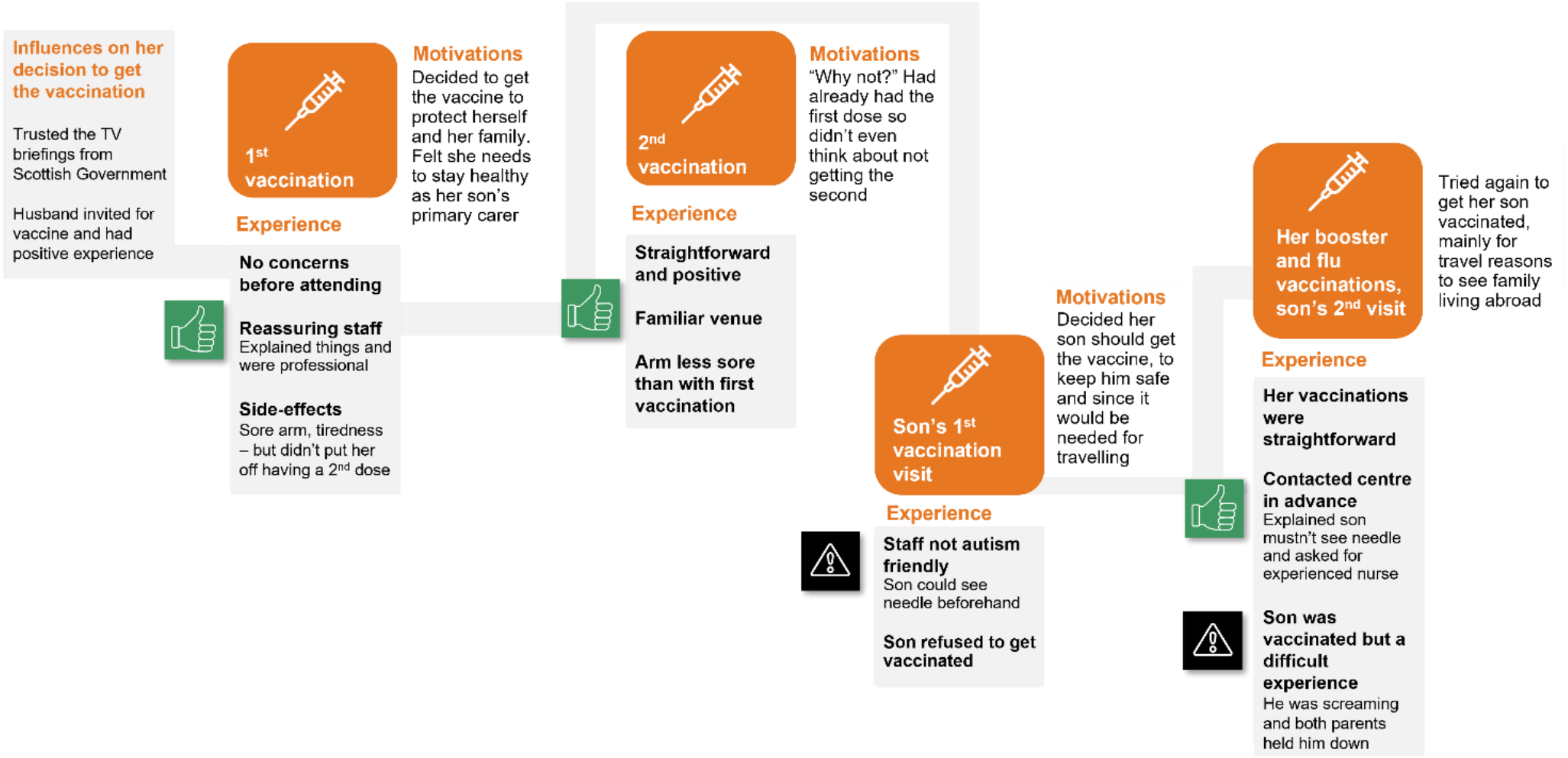
Jessica lives with her husband and two children, one of whom has autism. She works from home and is also an unpaid carer to her son. She found the pandemic very stressful at first and was worried about how it might affect her family.

Overall, Jessica feels positively about vaccinations. She did worry that the Covid-19 vaccine had been developed very quickly, but eventually she did decide to get it after her husband was vaccinated with no problems.

Her experience of the vaccination was positive and straightforward. However, she encountered practical difficulties trying to get her son vaccinated and felt that the staff were not prepared to support people with learning disabilities to be vaccinated.

Her journey with the Covid-19 vaccination programme is illustrated overleaf.

User journey: Jessica



3. Getting a second or third Covid-19 vaccination

Key points

- **Overall, information sources used were similar when hearing about and deciding whether to get a first, second or third dose of the Covid-19 vaccine.** However, there was some shift over time towards less reliance on formal information sources such as the mainstream news or government-issued information and greater reliance on word of mouth and personal experience.
- **Participants generally felt that they were more informed about later doses compared to the first**, particularly about side effects and how the vaccine was working in practice. However, there were a few points of confusion, mainly relating to getting a third dose and the term "booster".
- **The easing of pandemic-related restrictions, the introduction of Covid Status Certification and the wider context of revelations** about Downing Street parties during lockdowns all had an impact on decision making about whether to get a second and third dose of the Covid-19 vaccine.
- **As time went on, participants increasingly had direct personal experience of Covid-19, either contracting Covid-19 themselves or close family and friends having the virus.** Particularly for those who had mild or no symptoms, this could reduce their perceived personal health risk from the virus, in turn reducing their motivation to get further Covid-19 vaccinations.
- **While the motivations for getting a second or third Covid-19 vaccination tended to be similar to the motivations for getting a first, there were some important differences in the barriers.** Over time, concerns arose about the number of Covid-19 vaccine doses that were required and the effectiveness of the vaccine, largely due to a realisation that the vaccine does not prevent infection. This could cause people to disengage from the vaccination programme, particularly when it came to getting a third dose.
- **Practical experiences were also generally similar to experiences of the first dose, although some had doses at different venues.** Practical barriers (such as childcare and work commitments) could lead to participants not always receiving their second dose at the appropriate time, and there were concerns about meeting these types of responsibilities if side effects were severe. This appears to have been a greater concern for later doses.

This chapter looks at participants' experiences of getting a second or third Covid-19 vaccination in Scotland, and specifically how this compared to getting a first dose. It highlights any differences in terms of accessing information, motivations and barriers to getting a second or third vaccination, and the practical experiences of getting second or third vaccinations.

Information sources

In the main, the information sources used were similar when participants were hearing about and deciding whether to get the first, second and third doses of the Covid-19 vaccine. However, there was some shift over time between the first and subsequent doses, towards less reliance on formal information sources such as the mainstream news or government-issued information and greater reliance on word of mouth and personal experience. This became an important information source for informing people's understanding of the side effects and effectiveness of the vaccine, due in part to an increase in first-hand experiences of the Covid-19 vaccine and the virus itself, coupled with a perception that people's experiences of the Covid-19 vaccine clashed with what they had been told.

> "It was what I was seeing, it is not so much what I was hearing. Locally around I was seeing friends and family, I was hearing from them, that kind of changed my mind. I'm thinking, yes, we are being treated like sheep and just blindly doing what they ask us to do."

Participant, Disability or health condition, Pakistani, woman, 40+, SIMD1, 2 Covid-19 vaccinations

This meant that participants felt that they were more informed about later doses compared to the first, particularly about side effects and how the vaccine was working in practice. However, there were also those who did not see the need to engage with further information, as they had already made up their mind to trust the vaccination programme when getting a first dose of the Covid-19 vaccine. There were also signs of fatigue among participants who felt that, as time went on, there was 'too much' information about the Covid-19 vaccine.

> "I'll be honest, I started to tune out the news about the vaccine the more it went on. My decision was made."

Participant, White Scottish, woman, under 40, parent, rural, 3+ Covid-19 vaccinations

Despite participants feeling generally more informed by the time of their second and/or third Covid-19 vaccinations, there were some specific points of confusion when it came to the third dose. Not all were clear about why a third dose was needed, or on the term 'booster', due in part to some having understood previously that the second dose of the vaccine was a booster. In addition, those who were taking more time to decide about whether to get their third dose were not always clear on whether there was a time limit within which they needed to get it.

Motivations and barriers to getting a second or third vaccination

Shifts in pandemic restrictions and the wider context over time shaped decision making about whether to get a second and third dose of the Covid-19 vaccine. The easing of pandemic-related restrictions, the introduction of Covid Status Certification, and the wider context of revelations about Downing Street parties during the pandemic all impacted on participants' perceptions of the vaccination programme. As time went on, participants increasingly had direct personal experience of Covid-19, either contracting Covid-19 themselves or close family and friends having the virus. Particularly for those who had mild or no symptoms, this could reduce their perceived personal health risk from the virus, in turn reducing their motivation to get further Covid-19 vaccinations.

The motivations for getting a second or third Covid-19 vaccination were in the main similar to motivations for getting a first dose. However, there were some important differences which are outlined below.

Shifts in the external context also meant that certain motivations that had been important in deciding to get a first dose were less relevant by the time participants were offered a second or third. These included the removal of domestic Covid Status Certification; realising that being vaccinated would not stop transmission of the virus and the perception that the pandemic was coming to an end.

Among those who decided to get a second or third dose there was a sense that these decisions were easier compared to the first dose because they were familiar with the process and felt reassured that the vaccine was safe.

> "The first one was a struggle. That is the one I didn't want to go for, the second one and the third one they were easy to go for. I wasn't bothered after the first one, it was the first one that made me paranoid, but the rest of them were easy."
>
> Participant, has COPD, White Scottish, man, 40+, parent, 3+ Covid-19 vaccinations

> "I'm more pro-vaccine, because I've had it now, I know there's nothing to worry about and I can tell others there's nothing to worry about."
>
> Participant, Pakistani, man, under 40, unpaid carer, 3+ Covid-19 vaccinations

There was a tendency to think of the first two doses together while the third dose was seen as a separate decision. This related to the belief that having two doses meant they would be 'fully vaccinated' and that having two doses would provide a high level of immunity – both of which were motivating factors for getting a second dose. In contrast, a third dose could be seen as an optional extra, which related in part to it being termed a 'booster'.

Participants' expectations about the number of doses that would be needed also acted as a reason for some participants deciding not to get a third Covid-19 vaccination in particular. When the first dose of the Covid-19 vaccine became available, they were not necessarily expecting to need further doses in the future. That further doses were being offered led some participants to question the vaccine's effectiveness, as well as the safety of receiving multiple doses in a short space of time. There was also concern about how many boosters might be needed in future. There was a view that it would be preferable for the Covid-19 vaccine to be offered annually, like the flu vaccine.

> "We didn't even know there would be so many, or maybe we were told but certainly it wasn't huge, that there would be all these boosters and stuff, certainly I didn't think that. So when I got my 2nd dose I was like 'okay, this should do me good', and then 2 or 3 months later there was chat about a booster, and then a lot of my friends and even I was like 'do I need to get this booster?' Because it's getting a bit annoying now […] how many boosters are you going to need?"
>
> Participant, Pakistani, man, under 40, unpaid carer, 3+ Covid-19 vaccinations

Concern about the impact of multiple vaccinations on their body was also raised by participants who were eligible for multiple vaccinations due to a health condition and/or their age, and could be a key factor in their decision whether to get a third Covid-19 vaccination or not.

> "I thought I've had my flu jag, two Covid jags, and now the pneumonia jag, for heaven's sake I'm going to be a walking inoculation! So I thought I'm going to call a halt on the Covid thing, as I say I took two, and I think that's it, if my body's no developed its own immunity by now well, it'll just have to take its chances."
>
> Participant, White Scottish, woman, 40+, SIMD2, unpaid carer, low digital skills, 2 Covid-19 vaccinations

Key barriers to take-up of a second or third vaccination also included:

- Increased concern about side effects, due to their own personal experience of these, hearing about others' experiences (a particular barrier mentioned by Gypsy Travellers) or becoming aware of risks which were officially recognised after the first dose of the vaccine was rolled out.

> "I thought at first it would protect me from the virus. Then I started to know people, family, getting strokes and heart attacks. People with no health risks, no underlying conditions. That changed my mind"
>
> Participant, Disability or health condition, Gypsy Traveller, woman, under 40, parent, SIMD2, low digital skills, 1 Covid-19 vaccination

- If they had had a negative experience with a previous Covid-19 vaccination, whether side effects or another off-putting experience.

- The realisation that the Covid-19 vaccine did not prevent infection, leading to some participants questioning how useful or effective the vaccine was

"For the second one I thought I might have been saved from it because of the first vaccine. Now I'm wondering if it's really the vaccine or me being really cautious? […] People with all three now are still getting it, I'm thinking more about the effectiveness than the beginning"

Participant, Pakistani, woman, under 40, rural, 2 Covid-19 vaccinations

- Covid Status Certification, which acted as an important driver for some participants to get their first and subsequent vaccinations, particularly younger participants who were more likely to want to go to high risk settings such as clubbing or football matches (where domestic certification was required) and those for whom travelling internationally was important (where international certification was required). When domestic Covid Status Certification was removed, or participants believed it was no longer necessary to travel to particular countries they wished to visit, this led to some participants disengaging from the vaccination programme. However, it is important to note that Covid Status Certification remained operational for international travel and was required in most countries at the time fieldwork took place.

- Reduced perception of personal health risk from Covid-19, which related in part to participants being more likely to have personal experience of catching Covid-19 as the vaccination programme progressed. For those with no symptoms or mild ones, this could lead to reduced motivation to get another vaccination. This was particularly a reason for not getting a third vaccination, as there was a perception that two doses provided sufficient immunity.

- An erosion of trust in government more widely and in the vaccination programme specifically, which related both to news about Downing Street parties held during lockdown and to what could feel like continuously changing vaccination advice (for example, changes to eligibility for pregnant women and for children). This led some participants to question whether the threat of Covid-19 had been exaggerated and whether authority figures knew what they were doing. It could also diminish the sense of duty that some participants described feeling when getting their first vaccination, once they realised that not everybody in charge was following official guidance.

"The messages you get from the government is, if they don't follow these rules, it can't be that severe. You're scaring us all off. You all had get-togethers and whatnot last year, you have not followed the rules and you are absolutely fine, so why are you scaring the public? So, I thought, 'no, I don't need it'."

Participant, Disability or health condition, Pakistani, woman, 40+, SIMD1, 2 Covid-19 vaccinations

Participant story: Azrah

Azrah is in her late 40s and lives in Dundee. She lives with her adult son and has not worked for the past few years due to health reasons. She was very careful through the pandemic, making sure to follow the rules and not take any risks as she knew she would be at high risk if she did catch Covid-19.

She got her information about the vaccine from the internet, the TV, news programmes, and newspapers. When she got an invitation for a first dose of the Covid-19 vaccine in the post, she chose to accept it because she trusted government guidance and thought it was the right thing to do. Another crucial reason was that she was concerned for her health and wanted protection from the virus. She was also encouraged by her family to get vaccinated.

Her first appointment was at a convenient location that she was already familiar with, near her house and accessible to her. It was important to her that it was a venue she was comfortable with and that she knew she could access.

"If I was told to go somewhere else I didn't know, I would have been stressed out, really stressed out and I probably wouldn't have gone."

The venue offered enough privacy and felt safe, and the nurse seemed knowledgeable. She was glad to not experience any major side effects, especially given her existing health conditions. She was happy there was not a long queue, as standing for long periods is difficult for her. Her second vaccination was also straightforward – it was a similar decision for her and it was in the same venue.

In general, Azrah trusts vaccines, but she says her trust in them has been reduced by her experience of the Covid-19 pandemic. Azrah decided not to get a booster vaccination. This was partly because she missed her appointment due to illness and found the system for re-booking complicated, but it was also because she no longer trusted the vaccines. The main reasons for this was that the development of the Covid-19 vaccines felt rushed, the information from the government had been unclear, and because the vaccine does not prevent transmission.

> "Nothing has been crystal clear, you know, the government’s signals, what they have been saying, you know, what they have been doing, everything has been so rushed I just don't trust it anymore."

Experiences of receiving a second or third Covid-19 vaccination and practical considerations

Practical experiences of the second and third doses were generally similar to experiences of the first dose. This section focuses on where experiences did differ between the first, second and third doses.

While some participants received the second and third doses in the same venue as their first one, others went to a different venue. This was either because they were invited to a different venue, because they had selected a different venue themselves, or because they chose a drop-in venue for their next vaccination.

A practical barrier to vaccination for those with work, study or caring responsibilities related to the fear that if side effects were severe this could make it difficult to meet their other responsibilities. This appears to have been a greater concern for later doses, linked to a belief that the side effects for later doses were worse.

> “Whenever my second one was due, it was during exam season and I couldn’t afford to mess that up, I couldn’t afford to be ill. I was scared of the second dose more than the first one after hearing from friends and other people [that they had experienced worse side effects after later vaccinations]”
>
> Participant, Pakistani, man, under 40, 1 Covid-19 vaccination

There were participants who said that their experience had improved over time, largely due to the fact that they knew what to expect. However, others felt that the process had been more rushed, and queues had been longer, for their third dose than their first two.

> “That one was probably a bit of a nightmare. […] it was a drop-in centre, so it was the [brand] shop that had turned into a Covid clinic, and the queue literally went on for hours, I remember being in that queue for hours, it was horrible […] People were just kind of coming in at their time of the appointment, everything was pushed back, so the security people who were checking the queues were slotting people ahead of you because they had been late.”
>
> Participant, Pakistani, woman, under 40, 3+ Covid-19 vaccinations

Participant story: Kristen

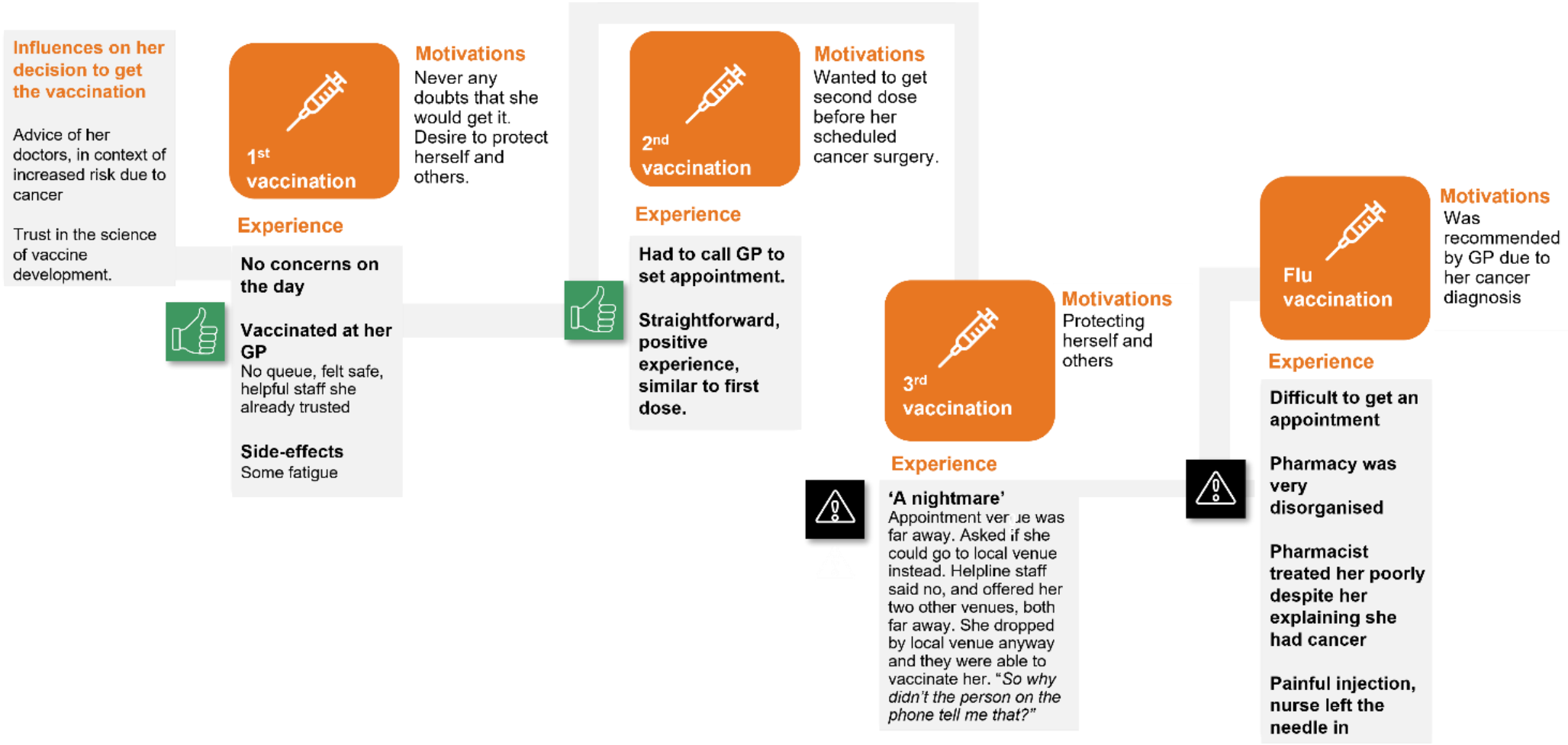
Kristen is in her late 30s and lives in the centre of Glasgow. Shortly before the pandemic, Kristen was diagnosed with cancer. She had surgery and was in chemotherapy during the first lockdown. She took time off work, and her mum moved in to support her. The pandemic was very difficult for her – because of her diagnosis, she shielded very carefully and did not do much other than stay home and go to hospital appointments.

She received regular letters and text updates from the Scottish Government due to being on the shielding list, and that was where she got most of her information on the vaccine programme. She liked being kept updated and felt looked after.

"I felt valued. [There was] value placed on my life that I would never have thought about prior to this happening. I would never have thought that the government would put so much emphasis on keeping me protected."

Looking forward, Kristen plans to get any Covid-19 or flu vaccines she is offered until she has recovered from her cancer. She wants to protect her health as much as she can, but once she is in remission she does not expect to get the flu vaccine – as until she was diagnosed with cancer she considered herself to be young and healthy. Kristen's journey with both vaccine programmes is outlined below.

User journey: Kristen



4. Getting a flu vaccination

Key points

- Participants had typically been aware of the flu vaccination programme for a number of years.
- **Key information sources included:** NHS invitation letters, GPs and nurses, posters in GP surgeries and pharmacies, television advertising and workplace communications (particularly NHS employees).
- **Personal health risk** was a key factor influencing decisions on the flu vaccine.
- Other factors acting as both drivers and barriers to receiving a flu vaccination included: perceived effectiveness of the vaccine; views on its safety and side effects; Covid-19 and flu being in circulation at the same time.
- Similar to practical experiences of the Covid-19 vaccination, experiences of receiving the flu vaccination were largely positive
- Views on getting the flu vaccination at the same time as the Covid-19 vaccination were mixed. It could be appealing as it saved time and was convenient. However, concern about increased side effects could be off-putting.

This chapter explores participants' experiences of the flu vaccination programme, first looking at information and awareness of the programme before moving on to consider motivations and barriers to receiving a flu vaccination and practical experiences of doing so. Comparisons with views and experiences of the Covid-19 vaccination are drawn out throughout, as well as being summarised in Figure 4.1.

It should be noted that questions on the flu vaccine were only asked to those who were eligible to receive it through the NHS, typically those with a health condition, caring responsibilities or working in NHS/other care roles (44 of the 81 participants). All who had received a flu vaccination had also received at least one dose of the Covid-19 vaccine.

Figure 4.1: Flu and Covid-19 comparisons

Flu vaccine, in comparison to Covid-19 vaccine	
Accessing information	Less likely to seek out information
Trust in information	Less scepticism, conspiracy theories not mentioned
Trust in the vaccine	Greater trust due to longevity, previous personal experience of receiving it
Perceived health risk as a motivator	Primary reason for receiving flu vaccine. More limited to those with underlying health conditions.
Concerns around side effects	More about short term side effects than potential long-term, unknown risks from Covid Known if had in the past
Experience of receiving the vaccine	Equally positive practical experiences Side effects less severe

Accessing information

This section deals with factors that fall predominantly under the 'capability' element of COM-B as it considers the participants' ability to access and understand information in order to make an informed decision on whether to get the flu vaccination.

It was typical for participants to have been eligible for an NHS flu vaccination for a number of years. They were therefore not always able to say when or how they first became aware of the programme. However, a number of information sources relating to the flu vaccination programme were mentioned, including: NHS invitation letters, GPs and nurses, posters in GP surgeries and pharmacies, television advertising and workplace communications (particularly NHS employees). Participants also described specific circumstances that had led them to become aware of it, for example becoming eligible as a result of being pregnant, taking on caring responsibilities or through their children becoming eligible.

In contrast to the Covid-19 vaccine, participants did not typically seek out information on the flu vaccine beyond that included in the sources noted above. They tended to be content with the information available to them and there was little evidence of it being a topic discussed with family or friends or on social media. There also appeared to be greater levels of trust in information on the flu vaccine, largely due to its longevity.

Motivations and barriers to engaging with the flu vaccination programme

This section deals with factors that fall predominantly under the 'motivation' element of COM-B, i.e., the decision-making processes involved in choosing whether or not to receive the flu vaccination.

Among those eligible for an NHS flu vaccination, experiences ranged from receiving it every year, having it just once or infrequently to never having taken up the offer. There were also those who had only recently become eligible due to changes in their circumstances, for example, becoming a carer. Health risk, both personal and to others, was the main factor influencing engagement with the flu vaccination programme. The combination of both Covid-19 and flu being in circulation at the same time was a further determining factor.

Health risk

Personal health risk was a key factor influencing decision making around the flu vaccination. Participants with underlying health conditions, and particularly respiratory conditions such as COPD and asthma, which they felt increased their risk of being more seriously ill or dying from the flu, tended to receive the flu vaccine annually and feel that this was a key measure in protecting their health.

> "I have to get it because of my illness, because I can't afford to catch it, because I can't breathe as it is already."
>
> Participant, health condition or disability, white Scottish, man, 40+, 3+ Covid-19 vaccinations

Others did not have the same fears about becoming seriously ill with flu but felt it was wise to take up the offer due to having immune systems weakened by their health condition or disability (for example diabetes, cancer or Downs Syndrome).

Health risk was also a motivator for those eligible for the flu vaccination because of being a carer or working in the NHS. Participants described a desire to avoid catching something that would make them feel unwell (particularly if they felt working in a hospital exposed them to a greater risk of catching viruses), both for their own health and to protect the health of others they cared for at home or as part of their job.

On the flipside, a perceived lack of personal health risk could act as a barrier among those without health conditions, with participants feeling that flu did not pose a significant risk to their health and that there was little reason to have it.

> "[I haven't had the flu vaccination because] … I just feel my immune system is quite good. I don't catch many colds. I'm not sure but I will not say I will never get it"
>
> Participant, health condition or disability, White Polish, woman, 40+, SIMD2, 3+ Covid-19 vaccinations

There was a view among this group that flu was similar to a cold, perhaps indicating a misunderstanding of how serious it can be.

Finally, there were participants who had not actively decided against the flu vaccination but displayed a degree of indifference, illustrating that they did not view it as a high priority in terms of their health. This included those who believed they should be eligible but had not received a letter and those who had missed their original appointment and had not got around to making another.

Perceived effectiveness

In weighing up whether to have the flu vaccine, views on its effectiveness were also factored in. There was mention that the vaccine is not guaranteed to prevent against all possible variants as well as reflection on past experiences. On the one hand receiving the flu vaccine regularly and not having had flu could instil confidence that the vaccine was working. On the other hand, though, experiences of having flu despite being vaccinated could lead participants to question the need to have it, particularly if they did not perceive themselves to be at high risk from flu.

> "When I got my vaccine I ended up getting the flu anyway, so it didn't actually prevent me from getting the flu, so I thought, well, I had a dead arm for a few days, what is the point in going and getting it if you're going to catch the flu anyway, it's not protecting you 100 per cent and there is different variants of flu, so until that winter they don't actually know what the variant of flu is that year. So, it is kind of hard to say whether the flu vaccine is effective."
>
> Participant, Pakistani, woman, 40+, SIMD1, no Covid-19 vaccinations

Safety and side effects

For participants who received the flu vaccination regularly, the decision was generally an easy one – it had become almost routine and was not something they gave much thought to each year. Familiarity with the vaccination and previous experience of getting it without any problems or serious side effects had built trust and confidence in the safety of the vaccine. These participants did not tend to have any concerns about having it, and, indeed, noted they would feel more concerned if they were not able to receive it for any reason.

> “I don’t really think about it now because I have been having it for that long, I just believe it is part of my life when it comes to the end of the year, the time I get my flu vaccination again.”
>
> Participant, Indian, man, under 40, carer, SIMD1, 3+ Covid-19 vaccinations

Concerns about the side effects of the flu vaccine could, however, act as a barrier to uptake, particularly among participants with underlying health conditions. Typically, participants had worries about becoming ill with flu or flu-like symptoms after having the vaccine which stemmed from previous personal experiences of having the flu vaccine or the experiences of others they knew. The decision could be a difficult one for these participants as they had to weigh up the risk of having the vaccine against the risk of getting flu.

> “I had the flu really, really, bad, probably five years ago, after the flu jag. That year I had the flu really, really, bad. Never had it like that before and I blame the flu jag. I thought ‘okay, I’m not having this ever again’. I get offered it every year, I have refused it.”
>
> Participant, Pakistani, woman, 40+, SIMD1, parent, 2 Covid-19 vaccinations

In contrast to the Covid-19 vaccine, concerns about side effects of the flu vaccine tended to be confined to these flu/flu-like symptoms rather than related to more serious or long-term effects. As discussed in Chapter 2, the speed at which the Covid-19 vaccine had been developed and introduced, in contrast to other vaccines, was a key reason for this. As the following quote illustrates, even where participants had concerns about getting the flu vaccine for the first time, they were not seriously concerned about negative consequences, in the same way they could be about the Covid-19 vaccine.

> “It was difficult, oh, the first one was of course, oh aye, I kept thinking to myself, does it work? […] One of the guys I worked with, he got his and he caught it [flu], so it makes you think, ‘why bother getting it if it’s not going to work?’. But I still went for it anyway, I ended up going for it, see they didn’t tell you that you were going to die with getting it, because nobody ever died, nobody dies with that jag, not that I know of anyway.”
>
> Participant, health condition or disability, white Scottish, man, 40+, 3+ Covid-19 vaccinations

The presence of Covid-19

The presence of Covid-19 acted as both a motivating factor and a barrier to receiving the flu vaccine during winter 2021/2022. On the one hand, concern about the dual risk from both viruses being in circulation prompted some participants who did not regularly have the flu vaccine to do so. This included those who cared for a vulnerable family member, those who were pregnant at the time and those, described above, who had not received the flu vaccine in recent years due to negative past experiences of side effects.

> “At a point I made a decision to stop taking the flu vaccine because any time I had the flu vaccine that winter I had terrible flu. The one year I didn’t have it, I didn’t have any flu throughout the winter season, so I made up my mind I wasn’t going to have the flu vaccine ever and up until last year I hadn’t had the flu vaccine for at least four years. So, with the Covid and with all the pressure this is the time to have the flu vaccine because it could be worse with this and that. I was like, ‘okay, I give up, I give in’ [and got the flu vaccine]”
>
> Participant, Black African, woman, 40+, parent, carer, 3+ Covid-19 vaccinations

One participant who was offered the flu vaccine as she was pregnant also noted the lack of exposure to germs, due to isolation, as a factor in her decision to have the flu vaccination.

> “I decided to take it as a precaution, because I felt that maybe, you know, it is going to help me not to get sick when I’m pregnant. Especially like with Covid you isolate yourself all the time, so you don’t have exposure to germs in the amount of, you know, your usual life pre-Covid. […] and I was thinking maybe I should take the flu vaccination because somebody will sneeze on me and I will be instantly sick because of, you know, being isolated all the time and escaping from all kinds of germs.”
>
> Participant, health condition or disability, White Polish, woman, under 40, SIMD2, parent, 3+ Covid-19 vaccinations

On the other hand, there were instances of the Covid-19 vaccination programme discouraging people from receiving a flu vaccine when they would otherwise have considered it. For example, for one participant, distrust of the Covid-19 vaccination (largely concerning risk of blood clots) led her to refuse her flu vaccination due to a worry that it could be contaminated with the Covid-19 vaccination (as both were being delivered in the same place).

Concern around the number of vaccines received in a short space of time was a further influencing factor. One participant who was pregnant at the time of the interview described having decided not to have either her Covid-19 booster or flu vaccination while she was still pregnant as she felt she had taken enough vaccines while pregnant (first and second Covid-19 vaccines).

Experiences of receiving a flu vaccination and practical considerations

This section considers the practical experiences of being invited for and receiving a flu vaccination, largely relating to the opportunity element of the COM-B behaviour change model.

Similar to experiences of the Covid-19 vaccination, experiences were largely positive. For participants who made the decision to get the flu vaccination at the same time as their Covid-19 vaccination (discussed below), the practical experiences of this vaccination appointment are covered in Chapter 4.

Typically, participants had been invited to have their flu vaccination by letter (including in their letter for the Covid-19 booster). Other invitation methods included text message and via work for those eligible because of their job. As described above, there were participants who believed they were eligible (due to having had the flu vaccination in other years) but had not received a letter.

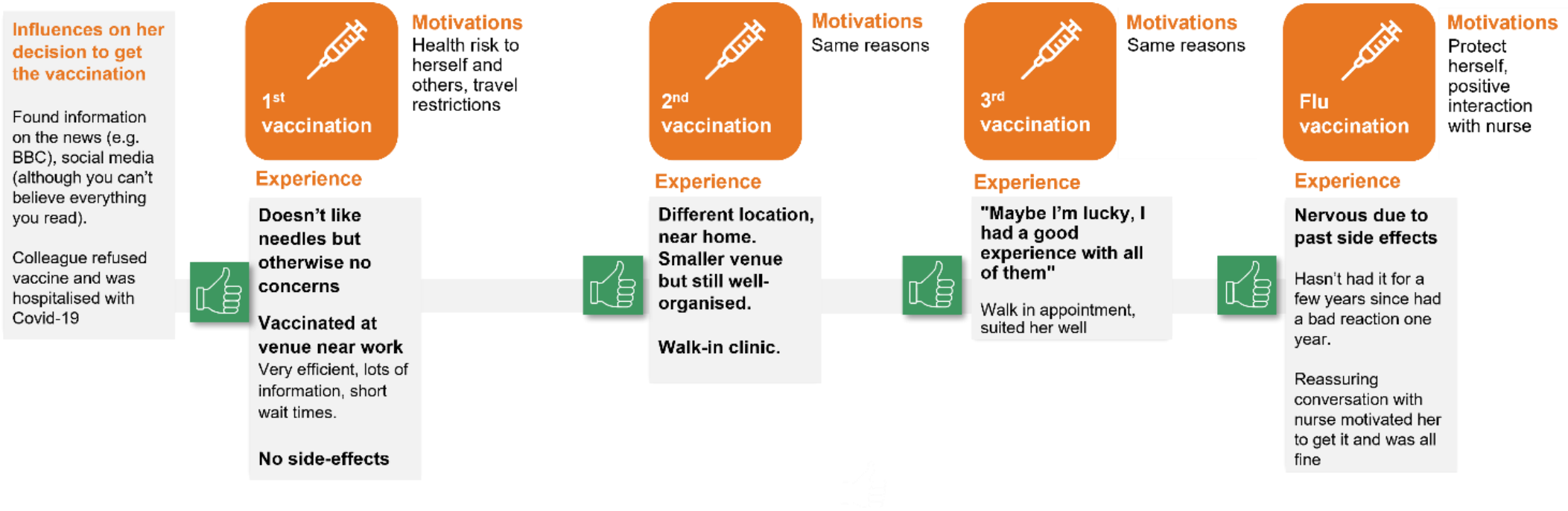
Views on getting the flu vaccination at the same time as the Covid-19 booster vaccination were mixed. It could be appealing as it saved time and was convenient - in some cases, participants had received a letter inviting them to receive both at the same appointment while, in others, they had gone expecting to receive their Covid-19 booster and had been offered, and accepted, the flu vaccination while there. There were also participants who said they would have chosen to have both vaccines at the same appointment had this been offered to them.

However, concern about increased side effects could be off-putting. This included both minor side effects (both arms being sore and out of use at the same time) and being more seriously ill afterwards (based on experiences of others). Indeed, one participant who made the decision to receive both vaccinations together had experienced worse side effects compared to his first and second Covid-19 vaccinations which had made him uncertain whether he would get the flu vaccination in the future. Generally speaking, however, participants did not report major side effects of the flu vaccination.

Participant story: Julia
Julia is from Poland and has lived in Scotland for many years. She works full-time in an office and has a 10-year-old child. She found the pandemic very frightening and felt that it was important that she do her own research about the vaccines. She was concerned about how quickly the Covid-19 vaccine had been developed and worried about side effects. However, she decided to get it to protect herself and her daughter. She had also talked to her family in Poland who had all been vaccinated without problems. The travel restrictions were another reason (although less of a factor) because she wanted to visit home at some point. Her Covid-19 vaccination appointments all went smoothly and were convenient for her.

She was more nervous about the flu vaccine because she had a bad reaction to it a few years ago. She was offered the vaccine through her work, and a nurse came in to vaccinate her colleagues. This gave her the opportunity to talk to the nurse in about her decision – she wasn't planning on getting it, but the nurse reassured her that the side effects were unlikely to happen again and that it was very low risk. This helped her decide to accept the flu vaccine. She had no reaction and felt like she had made the right decision. Her experience with the Covid-19 and flu vaccinations is outlined in the user journey diagram overleaf.

User journey: Julia



Participant story: Anya

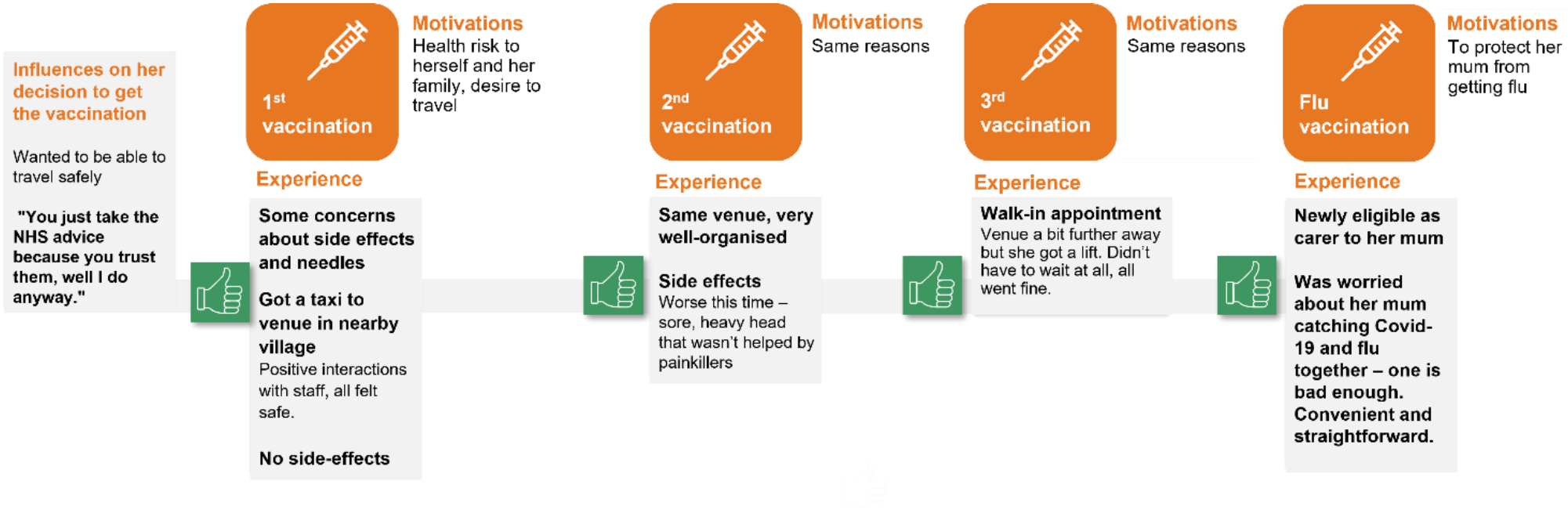
Anya lives with her husband and three children in a small town. Two of her children have behavioural issues which were exacerbated by lockdowns, and she found the it was difficult to maintain a routine for her children during the pandemic. She is also an unpaid carer to her mum, who has a long-term health condition and lives nearby.

She first heard about the Covid-19 vaccines in the news, and then was invited to be vaccinated herself. She chose to get vaccinated as she was very scared of catching Covid-19 and wanted to be able to travel safely to visit her family. She also wanted to minimise the risk that she would pass it on to her mum. She had some concerns about how quickly it had been developed, but never had any real doubt that she would accept it. All her Covid-19 vaccination appointments went smoothly and were relatively convenient – the only thing that could have been better would be if they were in her town, rather than having to travel to a nearby village.

This year, Anya received a letter from the NHS inviting her to get a flu vaccination. This was the first year that she was eligible, as she has only recently become a registered carer for her mother. Her reason for accepting the vaccination was to protect her mother. Given her mum's health conditions, it was recommended that Anya be vaccinated against flu to avoid passing it on. The Covid-19 pandemic also affected Anya's decision – she was particularly worried about the possibility of her mum catching flu and Covid-19 together, and she therefore accepted the flu vaccine to minimise this risk. The flu vaccine appointment worked well, it was in a local pharmacy, and she knew the staff there. However, it would have been better if she had been given the option to have it together with her Covid-19 booster.

Anya's experience is illustrated in the user journey diagram overleaf.

User journey: Anya



5. Views on children getting vaccinated against Covid-19 and the flu

Key points

- Parents typically felt they and their children were in agreement on getting a Covid-19 vaccine. Older children tended to be more involved in decision making compared to younger children.
- Those with strong views on the Covid-19 vaccination typically felt similarly regarding whether their children should become vaccinated. Those who had not had any Covid-19 vaccinations themselves were particularly against having their children receive it.
- Where there was divergence in views, it was among participants who had engaged in the Covid-19 vaccination programme themselves but were not confident in their children receiving a Covid-19 vaccination.
- There were two key reasons for this: (1) a perception that children did not need the vaccine due to being low risk and (2) believing that they had taken a risk by getting a newly developed vaccine and feeling uncomfortable with taking this decision on behalf of their children.
- Risks that were more of a worry for children included impacts on puberty and fertility, which participants were less concerned about for themselves personally.
- Parents tended to be more comfortable with children receiving a flu vaccine than a Covid-19 vaccine (in line with overall trust in the flu vaccine described in the previous chapter).

This chapter looks at parents' views on their children receiving vaccinations against Covid-19 and flu.

Views on children receiving a Covid-19 vaccination

Parents typically reported that they and their children had been in agreement about them getting a Covid-19 vaccine. Older children were generally more involved in the decision making than younger children.

> "Aye, I never pressurised him – he knew everything himself. When we got the appointment letter in, I asked him if he wanted to go, and he said yes."
>
> Participant with 17-year-old son, white Scottish, woman, 40+, 3+ Covid-19 vaccinations

For those in two-parent households, the decision was generally made by both parents.

Those who felt most strongly about the Covid-19 vaccination, either positively or negatively, typically held similar views when it came to their children. Those who had not had any Covid-19 vaccinations themselves were particularly opposed to having their children receive it.

Where there was divergence, it was among participants who had engaged in the Covid-19 vaccination programme themselves but were not confident in their children receiving a Covid-19 vaccination.

> "It's different putting stuff in my own body but I'm not willing to risk putting stuff into my kids… I was just reading more into the kids' ones and there were more cons than pros, I thought. So, at the time I just left it"
>
> Participant, white Scottish, woman, 40+, 2 Covid-19 vaccinations

For participants who were in favour of or open to their child being vaccinated, reasons included: protecting them and people around them from Covid-19, making it easier to travel, to avoid them missing school due to Covid-19, and because their friends were getting vaccinated without any problems.

> "Yes, I'm fully decided on [my son] especially, I think just for the holidays as well it saves you having to do tests and stuff. Just because he is getting a bit bigger as well he is out and about, if he is not vaccinated sometimes they can restrict you as well. Just so he doesn't get no well, but he keeps pretty good anyway."
>
> Participant, Mixed/Multiple Ethnic Group, woman, under 40, 3+ Covid-19 vaccinations

Participants who were against their children receiving a Covid-19 vaccination gave two main reasons for this: first, a perception that children did not need the vaccine due to being low risk, and second, a belief that taking the newly developed vaccine could be a risk, and feeling uncomfortable with taking this decision on behalf of their children. These two reasons were interconnected for some parents: they were uncomfortable with the possible risks of having their child(ren) vaccinated, and since they felt their child(ren) were fairly well protected from Covid-19 even without the vaccination, it did not feel worth that risk.

The first reason, a feeling that their child(ren) were not at real risk of Covid-19 and therefore did not need to be vaccinated, was informed in some cases by participants' direct experiences of their children having contracted the virus but having very minor or no symptoms and recovering quickly.

Where parents were concerned about the possible unknown risks of vaccination and felt uncomfortable with making that choice for their children, one risk that was felt to be more worrisome for children was the possible impacts of the vaccine on puberty and fertility.

> "I think the main one is she has not really gone through puberty or anything yet, so she has not had her own like body changes, and when I got the vaccine it really did mess with my periods and things a lot […] So, I wasn't willing to risk that, she has not gone through her own hormones yet […] I guess as well, we don't know the long-term effects of the vaccine. I mean I've lived my life, I've got my kids, so if anything bad happens to me, it doesn't matter. Whereas I don't want to take that opportunity away from her."
>
> Participant, white Scottish, woman, under 40, 3+ Covid-19 vaccinations

When asked what would have to change for them to be happy for their child to be vaccinated against COVID-19, the factors mentioned were: an emergence of a concerning new variant or one that affected children more seriously; it becoming mandatory for children to get the vaccine; or having more information on possible long-term impacts for children.

There were also parents who said that they could not currently imagine any scenario in which they would be comfortable with their children receiving the COVID-19 vaccine.

> "I dinnae think anything would really make me happy, I still dinnae really want them to have it, but I have to kind of weigh it up."
>
> Participant, white Scottish, woman, aged 40+, 2 Covid-19 vaccinations

Views on children receiving a flu vaccination

Parents tended to be more comfortable with children receiving a flu vaccination than a Covid-19 vaccine. This was in line with participants' views on the flu vaccine more generally, as discussed in the previous chapter.

Participants felt more comfortable with the flu vaccine for two main reasons: the flu vaccine had been around for a long time without major problems, and the flu vaccine was administered in schools by nasal spray, and therefore felt less invasive than an injection. There was also a perception that the flu vaccine is 'normal' and established – it was generally not felt to be a particularly big or important decision.

> "Now he's getting flu vaccine in the form of the nasal spray, it's kind of easy for him to get."
>
> Participant, White Polish, woman, 40+, 3+ Covid-19 vaccinations

For participants who chose to not have their children vaccinated against the flu, this was typically because they felt that it was not medically necessary.

> “If he is not sick or at risk of being really, really, sick from […] the flu during the winter months, then why keep adding chemicals into his body when I don't really know what it is doing? […] But for the Covid, it was different, because lots of people were dying”
>
> Participant, Black African, woman, 40+, 3+ Covid-19 vaccinations

There were also participants who reported that their child or children had experienced more flu symptoms during the winters where they had been vaccinated, and therefore felt that it was preferable for them not to receive the vaccination.

Participant story: Amy

Amy works for the NHS and was on maternity leave at the time of interview. She has an 11-year-old child, and a young baby.

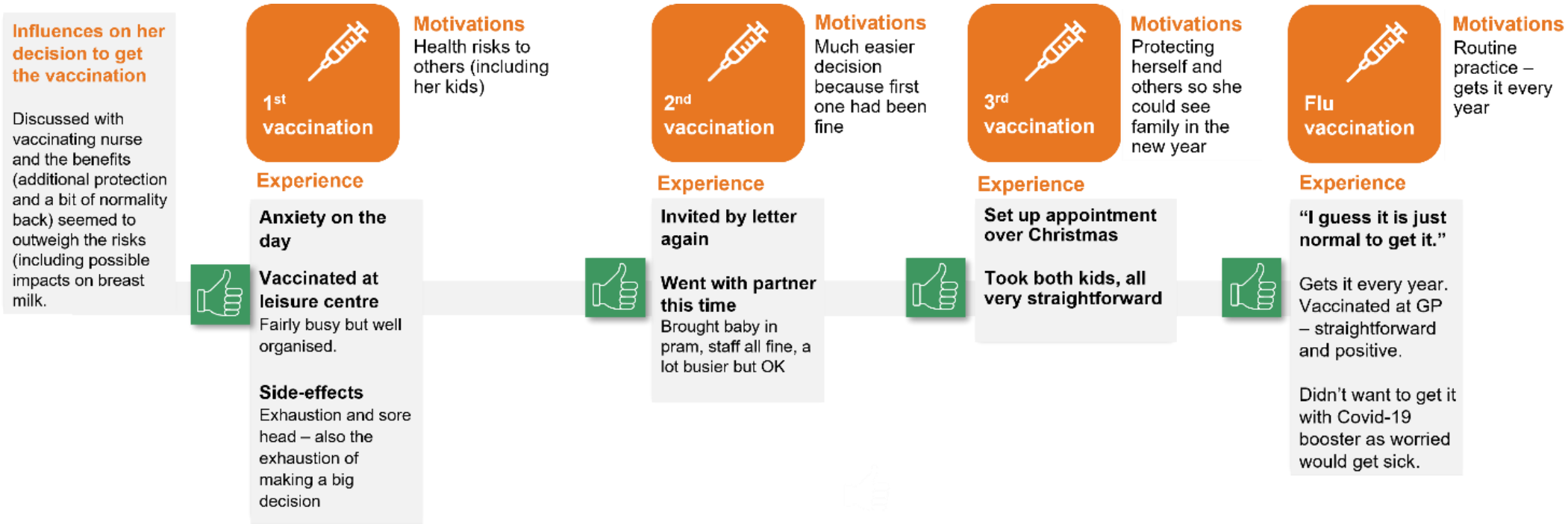
She did a lot of research before deciding to accept the first Covid-19 vaccination, because she felt very uncertain about whether it was the right decision. Her main concern was around the possible impact on her baby, as she was still breastfeeding at the time.

“I still didn't know, even when sat down in the chair at the vaccination centre, that I was going to go ahead or not.”

She actively sought out a lot of information, looking at sources like World Health Organisation (WHO) documents, independent journal articles, and official NHS and government websites. Another big influence for her was the nurse who was administering the vaccine – she was able to talk Amy through the data and outlined how the advantages outweighed the downsides. It also helped that the WHO had produced data just a few days before saying that it safe to be vaccinated while you were breastfeeding. Once she made the decision, her experiences of the next two vaccine doses were very straightforward, as illustrated in the user journey diagram below.

However, she still feels strongly opposed to having her children vaccinated against Covid-19. She does not think there has been enough research done on the possible long-term impacts on children, including the impact on fertility and children who have not gone through puberty yet. Amy thinks that maybe once her children are older, and are more able to make their own decisions, she would feel more confident.

User journey: Amy



6. Future considerations

Key points

- In considering whether to have future Covid-19 vaccinations, automatic motivations, often driven by fear and urgency earlier in the pandemic, had been largely replaced by more **reflective motivations**, with participants weighing up the risks and benefits.
- Views towards future Covid-19 vaccinations varied. Among those who would not hesitate to take up further vaccinations, **personal health risk was a key factor.**
- Among other participants, views ranged from being likely to take up a future vaccine, albeit with careful consideration, to being certain not to. Barriers to future take up included:
    - perceived (low) health risk
    - vaccine fatigue
    - views on vaccine efficacy
    - concern about side effects
    - original reason for vaccination no longer valid (e.g., Covid Status Certification travel requirements removed for certain countries)
- Changes to (or new evidence on) the above factors may change participants' minds about receiving future vaccinations.
- Overall, participants who had engaged with the Covid-19 and flu vaccination programmes felt they had been **well organised**.
- Participants suggested minor improvements to future Covid-19 and flu vaccinations programmes. Several themes cut across these suggestions for improvements, a vaccination programme that is: **inclusive; transparent; flexible to users' needs, friendly and welcoming**.

This section examines how likely participants thought they were to engage in future Covid-19 and flu vaccination programmes. This is followed by participants' suggestions for improvement to future vaccination programmes.

Likelihood to engage in future offers of the Covid-19 vaccination

Wider contextual shifts

From March to May 2022, when the research took place, few pandemic-related restrictions remained and Covid-19 had become less prominent in people's thoughts than was the case in the earlier stages of the pandemic. Reflecting this wider context, barriers and motivations for receiving future Covid-19 vaccinations had shifted somewhat from those that had driven initial vaccination decisions. In particular, the more automatic motivations, often driven by fear and urgency earlier in the pandemic, had been largely replaced by more reflective motivations, with participants weighing up the risks and benefits.

> "I would need more information before I just suddenly agree and launch myself into it [another Covid-19 vaccination]. It flings up quite a few questions. The way the first one was promoted, all these deaths worldwide, people were dropping like flies. [I got it] more [because of] the scare factor, 'oh there's a vaccine I'll take it'. We weren't told we might need a booster."
>
> Participant, white Scottish, man, 40+ carer, SIMD2, 2 Covid-19 vaccinations

A further shift noted was the lessening influence of social factors. While both pressure from family and friends and a wider sense of duty influenced initial vaccination decisions, there was very little discussion of these factors in relation to future vaccination decisions.

Motivations and barriers for engaging with future Covid-19 vaccinations

Among those who had received three Covid-19 vaccinations, views towards receiving further vaccinations varied. One view was that they would not hesitate to accept any Covid-19 vaccine offered to them in future. This view was held by both those who had been willing to receive all of their Covid-19 vaccines and those who were initially more reluctant. Having had a positive experience of the Covid-19 vaccination (for example not experiencing any side effects and attributing not having caught Covid-19, or experiencing it mildly, to being vaccinated) contributed to this view. Those with health conditions were particularly likely to be in this group, with personal health risk being an important motivator.

There were other triple-vaccinated participants, though, who were more reluctant to have future vaccinations. Views ranged from those who felt they were likely to but noted they would need to give it careful consideration to those who felt almost certain not to. The factors influencing these decisions are discussed below, together with the views of participants who had received two or fewer Covid-19 vaccinations (although drivers and motivations to engagement with the current vaccination programme are discussed in chapters 2 and 3 above, these participants were also asked about whether they would engage in future vaccination programmes and their views on engagement with the current and future programmes did not always correspond).

There were notable subgroup differences in views towards future Covid-19 vaccination with Pakistani and Black African participants less receptive to future vaccinations. The exception to this is those with a health condition they felt affected their personal health risk.

Key barriers to take-up of future Covid-19 vaccinations included:

- perceived health risk – a feeling of having sufficient immunity from vaccines already received; comparisons with the flu vaccination only being needed for more vulnerable individuals; the perceived risk from Omicron being lower than for previous strains; having had Covid-19 mildly.
- vaccine fatigue – apprehension around having several vaccines in a short space of time and/or around the idea of having to have them frequently in future
- views on efficacy – the fact that the current vaccine does not stop transmission of the virus; perception that the current vaccines are only effective against previous strains of the virus and that the virus will continue to mutate, making it difficult for vaccines to keep up; linked to vaccine fatigue, reduced faith in the effectiveness of the vaccine the more doses are required

- side effects – having experienced side effects after previous vaccines; concern about the longer-term build-up from having numerous vaccines in their system

- that their original reasons for receiving, or considering receiving, vaccination, such as to travel to a particular country or attend events, no longer apply

> “Is it necessary? I don't think it is necessary, because you know now they have lifted off everything, so it is not necessary, they have lifted it [restrictions] off, they have stopped the whole vaccine travel thing.”
>
> Participant, health condition or disability, White Polish, woman, under 40, SIMD2, parent, 3+ Covid-19 vaccinations

In terms of what would need to be different for them to take up future Covid-19 vaccinations, participants typically cited any changes in circumstances linked to the barriers described above. These included: a perceived increase in their personal health risk due to a change in their health or the emergence of a more virulent variant; the development of a vaccine which is more effective at preventing transmission (and seeing first-hand evidence of this happening); further information on the safety of the vaccine and evidence of side effects waning (for example menstrual periods returning to normal); and whether they wanted to travel abroad (and Covid Certification was required for that country) or if domestic Covid Certification Status was reintroduced.

> “I’m reluctant. I would only take it again if I needed to, and by that I mean if I can’t attend something or travel abroad”.
>
> Participant, Pakistani, man, under 40, SIMD1, 3+ Covid-19 vaccinations

Likelihood to engage in future offers of the flu vaccination

Likelihood to get a future flu vaccination was closely aligned with general views on the vaccine and was not typically something that had recently changed. In terms of what would have to change for those eligible for the flu vaccination but not planning to take-up future offers, a change in personal health risk was a key factor.

As touched on in Chapter 4, however, in a small number of cases, Covid-19 had influenced decisions on flu vaccinations, acting as both a motivating factor and a barrier. For these participants, decisions on future flu vaccinations would depend on the Covid-19 context at the time.

Suggested improvements for a future vaccination programme

Overall, participants who had engaged with the Covid-19 and flu vaccination programmes felt they had been well organised. In relation to Covid-19 specifically, there was a sense that the vaccination programme had been particularly impressive given the circumstances, timeframe and scale of the programme.

> “I couldn't fault it, I was really impressed with all vaccination programme and all information available, really truly impressed.”
>
> Participant, White Polish, woman, 40+, rural, 3+ Covid-19 vaccinations

Participants were asked what a future Covid-19 and flu vaccination programme which was both trusted and well-designed would look like. There were views at both ends of the spectrum, from those who felt it worked very well as it was to those who felt very disengaged from the vaccination programme and did not feel anything could make them trust it. However, among the remaining participants, suggestions for improvement were provided. These covered all aspects of the programme and, on the whole, were for minor improvements rather than fundamental changes. Suggestions were informed by challenges participants had personally experienced and by thinking about others in different circumstances

Several themes cut across suggestions for improvements. Participants wanted any future vaccination programme to be: inclusive; accessible; transparent; flexible to users’ needs; friendly and welcoming.

It should be noted that participants tended to focus more on Covid-19 than flu when considering a future programme, reflecting the Covid-19 vaccination’s higher profile and the fact that not all participants had experience of the flu vaccination.

Information provision

There was a strong desire for more information as part of a future vaccination programme. While participants had typically used multiple information sources to help inform their vaccination decisions, as described in Chapter 2, these did not always give them all the information they sought. Transparency, in particular, was a key theme in the discussion of information, which was strongly linked to trust in the vaccine. Topics on which there was a desire for more transparent information included:

- timescales for development of vaccines – how was it possible to develop them so quickly, when vaccine development usually takes a lot longer?
- ingredients and manufacturing processes – detailed information on these
- safety – how can they be sure that it is safe? how was it tested? access to trial data
- side effects – data on the likelihood of different side effects and among different groups in the population
- effectiveness – how does it work? how do we know that it is working? what evidence is there? why it is necessary?
- rationale behind the prioritisation of different groups (i.e. age groups and health conditions) for vaccines.

The tone of information was also considered important. One viewpoint was that information should be presented in a more factual manner, covering both pros and cons, to allow people to make their own decisions, rather than presented in a 'scaremongering' way, using fear as a motivator.

> "If there was a bit less pressuring people to get it and just more of the facts, because obviously there is people that do get side effects from it and I think it is a bit more common than what has been let on.[…] If you speak about that more widely, rather than trying to kind of brush it under the carpet, I feel there is going to be less scepticism towards it and a bit more people maybe accepting it or having a bit more discussion about it […] Just being a bit more honest and saying, 'right, okay, there are some side effects, but you could have side effects if you take paracetamol', or just being aware what are the risks with this."
>
> Participant, white Scottish, woman, under 40, no Covid-19 vaccinations

Suggestions were also made in relation to information sources and channels, largely reflecting those used to date:

- continued communication and information sharing via the NHS (e.g. leaflets, online, billboards) – considered particularly important due to the NHS being trusted
- further promotion of the vaccine by scientists and doctors

- news and media – a range to maximise reach (television, radio, social media (links to official sites such as NHS/Government websites)).

Ensuring information was accessible to all was also a valued aspect of a future vaccination programme, for example the provision of easy read versions of material.

Appointment scheduling

Typically, participants had been invited for a Covid-19 vaccination via letter. Opinion was divided on whether this was the best way to organise appointments in future. On the one hand, it was seen as preferable due to its formality and ability to reach those not online. However, there were reports of people not having received letters and concerns about the environmental impact were also mentioned. Accessibility barriers were also raised, with one blind participant noting that letters are not accessible to visually impaired individuals.

Being invited via text, email, by GP practice or being able to go online to book an appointment, without waiting to receive an invitation, were suggested as alternatives.

It was suggested that the information at the appointment stage could be more personalised. In particular, participants who had a strong preference for one vaccine over another suggested that it would be preferable to know at the appointment stage which vaccine brand they would receive.

Flexibility was viewed as a positive feature of the current programme and, while participants had their own preferences, they supported retaining the options of booking appointments as well as having drop-in vaccine centres. Being able to attend during evenings and weekends was valued.

There was a suggestion that the booking systems could be upgraded to improve user experiences, for example having a map displaying different vaccination venues, sharing live waiting times or having an app to cover all aspects of the vaccination programme (e.g., appointments, vaccine certification) in a single place.

Venues and vaccination experience

As discussed in Chapter 3, participants' practical experiences of being vaccinated were positive. In line with this, they did not tend to feel that the current system required significant change. However, considerations were raised in relation to the following key features of vaccination venues: proximity to home/ease of getting to the venue; type of setting; Covid-19 safety; and vaccination staff.

Ensuring that people could get to a vaccination centre on foot was the ideal scenario. While participants had typically not had to travel far to be vaccinated, they noted that the journeys could be difficult when people were unable to travel by car. In some cases, this had led to participants having to incur expense by travelling by taxi. These issues of access were more pronounced in rural areas.

Several ways in which people could be vaccinated closer to home or in more convenient locations were suggested:

- vaccinations being delivered in GP surgeries, pharmacies and local health centres
- mobile vaccination venues in rural areas
- greater choice of venues so individuals can select the one most convenient for them.

Among those who had a preference for being vaccinated in their GP surgery or local pharmacy, trust and familiarity with the settings as vaccination venues also played a role. However, there was some acknowledgement that these professionals may be too busy to deliver the vaccination programme.

Ensuring that venues were ‘Covid-safe’ was a further factor considered important in an ideal scenario, particularly for vulnerable groups. In real terms, this meant ensuring that there were enough venues to prevent them being crowded (there were those who had experience of long queues, particularly at booster vaccination centres with increased risk of catching Covid-19) and that they are clean.

While not a widespread issue, a desire for greater privacy while being vaccinated was also requested by a small number of participants.

Reflecting typical experiences of the current vaccination programme, participants stressed the importance of staff being friendly and welcoming, recognising that people can feel nervous.

Ensuring that staff have the training and skills to support those with additional support needs (for example, autism) to have a positive vaccination experience was also important.

Finally, although this method of administration is not currently available, there was a desire for a nasal spray Covid-19 vaccine to be made available for children, those with needle phobias and those with certain additional needs.

7. Conclusions

This chapter draws together findings from previous chapters under the domains of the COM-B model of behaviour. The theory behind COM-B is that, in order for a behaviour to take place, individuals should have the Capability (both psychological and physical); the Opportunity (both social and physical) and the Motivation (either reflective or automatic) to do so. If significant barriers exist within any domains, undertaking the behaviour is challenging.

The research has identified both enablers and barriers to engagement with the vaccination programme under each of the COM-B domains. Each domain is now considered in turn, in order of influence on engagement with the current vaccination programme. Understanding where the barriers lie facilitates the identification of interventions best suited to addressing them, with COM-B also providing intervention guidance.

Motivation

In the context of the current vaccination programme, where participants were not typically hindered by informational or practical barriers, motivational factors exerted the greatest influence on vaccination decisions.

COM-B separates motivation into automatic and reflective dimensions with automatic motivation being driven more by emotional reactions or impulses, such as fear and anxiety, and reflective motivation being more considered decision making, such as intentions of behaviours and beliefs about consequences.

Automatic motivation

Personal health risk was a key factor in vaccination decisions and this was driven, at least in part, by automatic motivation. Whether feelings of fear and anxiety around health risk acted as enablers or barriers depended on whether participants were more anxious about the potential health effects of Covid-19 or of the vaccine. On the one hand, there were participants who were highly anxious about catching Covid-19 and were keen to receive the vaccination as soon as possible. This appeared to be a largely automatic decision with little, if any, consideration given to the possibility of not receiving the vaccination. On the other hand, however, were participants whose overwhelming anxiety about potential side effects of the vaccine (e.g., blood clots) was not something they could overcome.

As noted in Chapter 6 above, automatic motivation as an enabler to vaccination played a greater role at the start of the vaccination programme, due to the context of the pandemic at that time. It became less influential over time as participants felt less at risk from Covid-19 due to, for example, having some protection from vaccinations, having had Covid-19 mildly, or perceiving the Omicron variant to be milder.

Reflective motivation

There were multiple examples of the role of reflective motivation in the decision making process. The most significant one relates to the 'beliefs about consequences' element of reflective motivation[16]. In making the decision on whether to receive vaccinations, participants' beliefs in relation to the following key questions acted as important enablers and barriers:

- does Covid-19 present a risk to my health?
- will the vaccination prevent me catching Covid-19?
- will the vaccination prevent me becoming seriously ill with Covid-19?
- will I experience side effects from the vaccination?
- will getting vaccinated help protect others?
- will getting vaccinated help ease restrictions?
- will I be able to travel if I get vaccinated?

Views on these topics changed through the course of the vaccination programme and would be expected to continue to do so as the pandemic context evolves.

Capability

Physical capability

Physical capability relates to having the physical skill, strength or stamina to engage in a behaviour. In the case of receiving a vaccination, this includes considerations such as being physically able to attend a vaccination appointment as well as feeling physically well enough to cope with any side effects of a vaccine. Given the overlap with accessibility enablers and barriers, covered under the physical opportunity dimension (below), this section focuses only on the latter of these.

For the most part, physical capability did not prevent people being vaccinated. Indeed, being in poor physical health was often a reason for being vaccinated. There were, however, instances of participants (particularly those with heart or respiratory conditions they believed could be affected by the vaccine) describing difficult decisions as they were concerned about the potential health effects of both the Covid-19 vaccination and of contracting Covid-19 itself.

Conversely, a feeling of being in very good health, and not at risk from Covid-19, could act as a barrier to vaccination.

[16] Reflective motivation comprises six sub-domains: social professional role and identity, beliefs about capabilities, optimism, beliefs about consequences, intentions and goals. Since beliefs about consequences of being vaccinated or not appeared to have the strongest influence, the section covers this sub-domain only, in the interests of brevity.

Psychological capability

The psychological capability domain of COM-B concerns having the knowledge or psychological skills to undertake the desired behaviours. There are two main elements to this in the context of the vaccination programme. First, do participants have the capability to access and understand the information needed to make an informed vaccination decision, and, second, do they know how to go about being vaccinated?

In relation to the first, participants typically felt that they had been able to make an informed decision from the information available. However, there were exceptions to this. These were not typically linked to a lack of capability to source and assess information but rather to a lack of available information of the type being sought (e.g., detailed statistics on side effects and long-term safety of the vaccine). There was an acknowledgement that this type of information may not yet exist, due to the speed at which the vaccine has been introduced and the ever-changing context of the pandemic. These participants had often not rejected outright the possibility of being vaccinated but were delaying until they had more information.

For other participants, barriers relating directly to psychological capability did exist. These included being unable to understand more technical information of the kind they were looking for (e.g. technical information included in scientific or medical journals) or being unable to access official information due to difficulties with reading (particularly among the Gypsy Traveller community). A more general lack of trust in government and authority also appeared to have negatively influenced interpretation of official information sources or put participants off engaging with them altogether.

In relation to the second point above, participants were clear on how to go about being vaccinated.

Opportunity

Social opportunity

Social opportunity considers how interpersonal influences, social cues and cultural norms can influence decisions. In relation to vaccination decisions, it includes the extent to which people are influenced by those around them, both people close to them and wider societal norms.

Overall, social influences had a positive impact on vaccination take up. There were cases of participants explicitly stating the influence of others on their decision to be vaccinated (for example friends and family encouraging them to be vaccinated if they were vulnerable). However, there was also a clear sense of social influences coming through more implicitly. For participants who received the vaccination with little hesitation, there was a feeling that they were doing so because they considered it to be the social norm - the ‘right’ thing to do.

There was, however, evidence of this more implicit social motivation waning over time with some participants weighing up the decision to have second/third doses or future vaccinations more carefully. In discussing these, they were more focused on the risks and benefits to them personally rather than to society as a whole.

Disengaged participants were clearly not swayed by any social expectation to be vaccinated. In some cases, their disengagement from the vaccination programme appeared to be linked to low levels of trust in government and authority more generally.

Participants who had engaged with the vaccination programme also described more negative social influences (for example, holding different views to friends and family, scaremongering information on social media and greater scepticism in their communities e.g., Polish, Black African). While these had not typically dissuaded them from engaging in the vaccination programme altogether, they made decisions more difficult and contributed to some participants choosing not to receive the booster.

Physical opportunity

Physical opportunity considers the influence of the external environment (i.e., time, resources, locations, cues, and physical ease). In this case, it includes factors such as the accessibility of venues, timings of vaccination appointments and practical experience of vaccination appointments.

Overall, it is clear that physical opportunity factors acted more as an enabler to vaccination than as a barrier for the current programme, with participants typically describing positive experiences of being vaccinated and, on the whole, being able to overcome any barriers that existed, for example rescheduling appointments to a more suitable location.

However, there were exceptions to this, with the physical environment acting as a barrier or, at least presenting difficulties, in certain circumstances. These included: not having received invitation letters; challenges organising childcare or time off work to attend; difficulties travelling to vaccination appointments without access to a car, resulting in either incurring the expense of taxis or having to rely on others for transport (particularly pronounced in, although not exclusive to, those living in rural areas); and venues and vaccination staff contributing to a less positive experience (e.g., long queues affecting waiting times as well as raising concerns about Covid safety, access difficulties for those with certain health conditions and disabilities, and occasional negative interactions with staff).

Reflecting on their own challenges and considering the needs of others, participants expressed a desire for future vaccination programmes to be inclusive, accessible, flexible, friendly and welcoming.

How to access background or source data

☒ may be made available on request, subject to consideration of legal and ethical factors. Please contact socialresearch@gov.scot for further information.

social research

The views expressed in this report are those of the researcher and do not necessarily represent those of the Scottish Government or Scottish Ministers.

This document is also available from our website at www.gov.scot.
ISBN: 978-1-80435-540-4

The Scottish Government
St Andrew's House
Edinburgh
EH1 3DG

Produced for
the Scottish Government
by APS Group Scotland
PPDAS1097682 (06/22)
Published by
the Scottish Government,
June 2022

GSR
GOVERNMENT SOCIAL RESEARCH
Social Science in Government

Social Research series
ISSN 2045-6964
ISBN 978-1-80435-540-4

Web Publication
www.gov.scot/socialresearch

PPDAS1097682 (06/22)