

Article

Coronavirus vaccine hesitancy in younger adults: June 2021

A qualitative study of adults aged 16 to 29 years looking into reasons why they are hesitant towards a coronavirus (COVID-19) vaccine.

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1 . Main points

- In June 2021, a qualitative pilot study exploring reasons for vaccine hesitancy was undertaken with 17 previous respondents (aged 16 to 29 years) of the Opinions and Lifestyle Survey (OPN) who had indicated they were “fairly unlikely” or “very unlikely” to get a coronavirus (COVID-19) vaccine; none had subsequently had the vaccine at the time of research.
- Primary factors for increasing vaccine hesitancy included distrust of vaccine (safety and content); distrust of government and of those encouraging vaccine take up; concern about known and unknown side effects (including on fertility); and belief it was unnecessary for those at low risk of harm from the virus.
- Changes in vaccine hesitancy appeared related to media influences, experiences of others having the vaccine, and opinions of those in close social networks; the impact of vaccine passports was mixed and could result in encouraging some participants to be vaccinated but discouraging others completely.
- Generally, vaccination in the future was considered by participants, but this was often far in the future because of a wish to know more about long-term side effects, and dependent on more information, research, and medical studies being available.
- There were subtle differences between some demographic characteristics; the youngest participants were more influenced by negative social media narratives, female participants were more concerned about fertility related side effects, while Black participants indicated higher levels of generalised distrust.

2 . Overview

These are findings from qualitative research undertaken between 15 and 30 June 2021 with 17 respondents aged 16 to 29 years who had previously expressed hesitancy towards getting the coronavirus (COVID-19) vaccine when responding to the Opinions and Lifestyle Survey (OPN).

In August, ONS research found that [16- to 29-year-olds were the most hesitant age group](#), with 8% reporting vaccine hesitancy compared with 5% and 2% in those aged 30 to 49 years, and over 50s respectively. Hesitancy was defined as having been offered a vaccine but declined the offer; are very or fairly unlikely to have the vaccine if offered; are neither likely nor unlikely to have the vaccine if offered; don't know; or preferred not to say. At the time of this research, 16- and 17-year-olds had not yet been offered a first dose of the vaccine but all people over the age of 18 years were eligible to be vaccinated.

This research piloted a new methodological framework for supplementing quantitative data, by purposively resampling from an existing survey, where more in-depth evidence is needed for public policy analysis.

Reasons for vaccine hesitancy, and any changes in vaccine hesitancy since reporting in the OPN, were explored through semi-structured in-depth interviews. The findings in this article were derived from full qualitative analysis using transcribed interviews and an analysis session held between all interviewers and observers to allow discussion of high-level themes. A methodology working paper exploring this framework and opportunities to use qualitative research to further explore quantitative survey results will follow.

The findings are from a small sample of young adults, predominantly residing in England, collected using a pilot methodological approach. As a result, findings are not generalisable to wider populations, nor is it possible to quantify themes presented.

3 . Contextual findings

General pandemic experience and views

Experiences of lifestyle changes because of the coronavirus (COVID-19) pandemic were mixed. For some, things were very different with several changes to their lives expressed such as change in work environment, not seeing others, mask wearing and sanitising. For others, not much was different. This tended to be either because their lives had not involved much going out prior to the pandemic or because they had “just carried on as normal literally in every way”. A desire to “get back to normal” was evident across participants and happiness was expressed at things “opening back up”.

Several measures were being taken by participants to avoid catching the virus. These included:

- following government guidelines such as hand washing, mask wearing, and social distancing
- completing Track and Trace (via the NHS app)
- efforts to “minimise contact” with others, for example, home working
- sanitising (both self and home)
- following guidelines around shopping (that is, waiting outside until allowed in or following directions laid out in supermarkets)

As well as these measures, participants reported protecting other people by avoiding contact if they were feeling ill; being extra cautious around older people; and avoiding busier areas and public transport.

When making decisions about what to do to protect themselves and others, participants:

- used “common sense”
- consulted government guidelines
- made decisions relating to their perceived vulnerability of others
- checked what others were doing
- listened to advice on the news, radio, or social media
- got information from another source (that is, their children’s school)

Knowledge around how the virus spreads was generally good. There was some doubt expressed around whether the knowledge was correct, however, participants generally understood the virus to spread:

- through “little droplets” in the air
- on surfaces
- through coughing, sneezing, or “spit particles”
- from being in close contact with those who have the virus

It was mixed whether participants had heard about different COVID-19 variants or understood the term “variant”. It should be noted that data collection took place in June 2021 and awareness of variants may have changed since this time. The mostly commonly known variant was the Indian or Delta variant. Other variants were also mentioned and included:

- Brazilian
- South African
- South Atlantic
- Russian
- Alpha and “Bravo”

Participants gave examples of what they had heard about the variants:

- more contagious but potentially weaker
- more deadly and producing worse symptoms
- the vaccine does not work on new variants or they are more resistant to the vaccine
- excuse for the government to keep us locked down
- scaremongering

Perceptions of the COVID-19 vaccine rollout were generally positive irrespective of personal views on the vaccine. However, some concerns were recorded regarding the speed of the rollout being unnerving:

Participants’ vaccine experience at the time of interview

All participants aged 18 years and over had received communication, including letters and texts, indicating they were eligible to book an appointment for a vaccine from either or both the NHS and GPs.

No response had been provided to these communications from our participants and no vaccine appointments had yet been booked or attended. This was not a condition of recruitment to the research and may be down to chance or sample bias.

When asked their thoughts about having the vaccine, some participants appeared indifferent:

However, other participants reported hesitancy with the prospect of vaccination causing them negative thoughts. These included:

- anxious or worried
- “don't feel like I can trust it”
- feeling pressured
- not wanting to “take something that [they] don't need”

Participants that initially indicated indifference to the vaccine displayed hesitancy when their intentions to have the vaccine were probed.

4 . Hesitancy reasons and influencing factors

What reasons for vaccine hesitancy were expressed?

There were a range of factors contributing to hesitancy reported, including concerns about the vaccine, a lack of perceived risk or vulnerability, general distrust of government and of those encouraging vaccine take up.

Participants generally indicated more than one reason for their hesitancy towards receiving the coronavirus (COVID-19) vaccine. It was commonly a combination of two of three reasons.

The strongest theme around hesitancy was a general distrust of the vaccine. This distrust covered several aspects:

- concern about side effects, particularly unknown long-term side effects:
- rushed vaccine development:
- not knowing what's in the vaccine:
- distrust of the government:

Mentions of previous medical issues, particularly Thalidomide, were also recorded and given as reasons participants did not fully trust the vaccine.

In addition to distrust, a low perception of risk was a strong theme contributing to vaccine hesitancy. This low risk perception incorporated beliefs of:

- age protection (that is, those who are younger are at less risk):

- natural immunity:
- protection by herd immunity:
- engaging in other protective measures was enough (for example, mask wearing, sanitising, social distancing):

Additional reasons for hesitancy were also recorded and included:

- it does not completely prevent you contracting or passing on COVID-19
- fear of needles
- agoraphobia and needing to attend a clinic
- allergies (including any unknown to participants)
- conspiracy theories (for example, 5G chips and government control)

There were no reported practical issues directly causing hesitancy to the vaccine. However, concern for the potential of practical issues was highlighted should participants choose to have the vaccine:

- those with children worried that any side effects would impede their ability to care for their families:
- those who did not drive indicated that they may have problems travelling to the vaccine centre should they decide to get it

Positives to having the vaccine were identified despite hesitancies. These included:

- seeing friends and family more
- travelling more
- easing of lockdown
- stopping spread of the virus and reducing deaths
- make people feel safer (for example, reducing anxiety around socialising)
- going “back to normal”

Despite this, worries around the vaccine creating a false sense of security, and thus people taking more risks, were expressed.

Had vaccine hesitancy evolved over time?

There were cases where views about having the vaccine had changed over time with some becoming more hesitant and some becoming less hesitant. Other participants were unchanged in their views and opinions.

Those who had become more hesitant expressed it was because:

- the government was “pushy” with wanting people to have the vaccine and it made them suspicious as to why this was:
- they had heard and researched more about negative side effects causing them to worry more:
- more hesitancy was felt after seeing videos relating to conspiracy theories:
- they knew people who had reacted badly to the vaccine:
- they had learnt more about how low risk they were (that is, from COVID-19, and particularly dying from it) and thus felt they less needed the vaccine:
- they had not caught the virus yet so did not think they needed the vaccine:
- they had caught the virus and survived therefore did not feel a pressing need for the vaccine:

Those who had become less hesitant gave the following reasons:

- they had heard more positive information from trusted sources:
- seeing and reading more research on the vaccine:

- they could see in the news that it was reducing cases of COVID-19:

What factors could influence vaccine hesitancy?

Participants expressed a desire for more information about the COVID-19 vaccine before they would feel comfortable having it. Most participants were open to the idea of having the vaccine in the future. However, for some, this was far in the future and dependent on several things.

When asked about what would reduce their hesitancy towards the vaccine, participants generally wanted to wait and see how the general public reacted to their vaccines. The emphasis was on waiting to see if long-term side effects from the vaccine became evident.

Participants also wanted more specific information relating to the vaccine, including:

- how it affects people, particularly of their age group:
- impact on fertility:
- the vaccine's effectiveness for different variants:
- vaccine ingredients:

The type of information participants wanted varied and included:

- infection rates
- data on effectiveness of the vaccine
- medical trials
- human trials

It was also indicated that the fact the vaccine did not 100% prevent virus transmission (catching and passing on) increased hesitancy to the vaccine. Participants expressed that if it were more effective, they would be less hesitant:

Vaccine passports

The overall impact of vaccine passports on getting vaccinated was mixed, ranging from increasing likelihood of vaccination, having no influence, causing confusion, or decreasing likelihood of vaccination.

Comments were made about it being a good thing that countries were monitoring it to keep us safe:

- it was also thought to be a good thing too for stopping the spread or development of variants
- it was deemed a positive as it will enable travel again

There were participants that indicated that the introduction of restrictions for unvaccinated people would likely encourage them to get the vaccine. However, this would not impact the hesitations they felt:

The prospect of vaccine passports was met with negativity from other participants. Comments around it seeming like control from the government, and references to “blackmail”, were made.

Participants that did not like the idea of vaccine passports indicated that their introduction would make them less likely to have the vaccine:

Additionally, participants voiced worries around the potential for segregated societies and splitting people by vaccine status in terms of what they can do:

Other negative comments around them were recorded including believing they took away choice and human rights and would make unvaccinated people feel like second-class citizens:

Additionally, the idea of them was found to be too personal, as it would mean having medical information on display:

There were those that expressed they would rather get a fake vaccine passport than the vaccines themselves:

Being vaccinated in the future

Generally, participants would consider getting vaccinated in the future. This consideration, however, was dependent on a variety of factors. Additionally, there were participants that indicated they would never feel comfortable getting the vaccine.

Those who indicated considering the vaccine in the future were asked to define this time frame and answers ranged from a few months to several decades.

Time frames also appeared contingent on other factors such as:

- feeling well in own health
- if it was necessary for travel
- if more research and information was available, as detailed previously

Views of vaccines more generally

Participants had generally been vaccinated previously but this was usually in school and therefore limited recollection of these experiences was available. There were participants who had not had a vaccine before either through own refusal or parental refusal.

When discussing the COVID-19 vaccine's efficacy, participants were mixed in their opinions on this:

- questions around the vaccine's effectiveness were raised because vaccinated people are still dying
- others voiced believing it does work because infection and mortality numbers are reducing
- comments were made about the vaccine reducing the spread because hospital admissions are also reducing
- thoughts that the vaccine could be causing people to take more risks through their belief that they are now protected thus potentially increasing the spread were reiterated

There was some awareness of the different vaccines available. Some preferences on which vaccine was received were voiced but generally participants indicated that they would just prefer the most effective vaccine. Generally, participants indicated that they would want to do more research before deciding on a preference.

Where participants did express a preference for a particular vaccine, it was generally for one they had seen more favourable reporting around in terms of effectiveness and minimal or less-serious side effects.

5 . Social networks

The vaccine experiences, and views and opinions, of participants' family and friends appeared to influence their own hesitancy. Where participants had heard negative experiences, they voiced worry around experiencing something similar. However, where positive views or experiences had been discussed, participants indicated easing of hesitancy, although not always entirely.

Participants were mixed as to whether they thought their friends and family were at low or high risk from coronavirus (COVID-19) and this generally depended on age and existing health conditions. Additionally, thoughts on general public risk was mixed and dependent on individuals' circumstances.

All participants knew someone that had had at least one vaccine. Generally, it was believed to be an individual's right to choose whether to be vaccinated and participants were happy with friends and family having it:

- in particular, happiness with older relatives having the vaccine was expressed as participants were happy that those more vulnerable were protected
- an instance was recorded where the participant's family had refused the vaccine on behalf of an older relative, something the participant appeared in agreement with:

Some concerns were voiced, however, around others having the vaccine particularly where participants were aware of their underlying health conditions or relating to specific side effects:

The experiences of others having the vaccine was often discussed with participants.

- some knew, and had talked to, those that had had quite bad side effects:

However, generally, discussions had just been indicating mild side effects or nothing to note.

Generally, participants knew others that were also hesitant to having their vaccine and were delaying it for now. However, only a few knew someone that was indefinitely refusing their vaccine. It was uncommon, but there were participants who were the only person in their family or friend group that was refusing the vaccine.

6 . Sources of information

Participants accessed a wide range of sources of information about the vaccine. The information seen by participants influenced hesitancy where positive news decreased worry about the vaccine, but negative news increased worry. Participants generally wanted more information on the potential side effects of the vaccine.

Sources of information about coronavirus (COVID-19) and the vaccine included:

- news sources
- radio
- internet, such as:
 - social media
 - government websites
 - NHS website
 - ONS website
 - statistics and research articles generally
 - medical information generally
- pop ups on the phone (this was generally news sources however)
- school
- church
- word of mouth

Participants were mixed in whether they sought out information on the vaccine or whether they had happened across it. Happening across information was common across all participants, however, there were participants that then additionally sought out further information on what they had happened across to verify it or find out more.

Information fatigue was very common with participants indicating that they were now actively avoiding news about the pandemic:

Trustworthy sources of information were deemed as including:

- NHS
- medical studies
- word of mouth and/or hearing lived experiences
- information that participants saw multiple times
- information that participants could verify themselves
- family and friends

Factors that participants used to deem a source trustworthy included:

- fact checked
- written by knowledgeable or qualified people
- containing objective information such as statistics
- evidenced information
- if the information or source is transparent (for example, in who it is written by or where figures are from)

Preferences were indicated for information from medical professionals:

Some issues with current information were raised, however, with:

- information being “too general”:
- conflicting advice regarding priority vaccines:
- the government not being transparent enough:

Sources believed to be less trustworthy included:

- some specific news sources
- social media
- conspiracy theories
- companies that are making money off posting articles and/or have an “ulterior motive”

Factors that decreased participants’ trust in a source included:

- information that is sensationalised
- a history of reporting inaccurate information
- if money is being made off the information
- information that is not referenced or cannot be verified

Participants were mixed in their trust of government information and sources, with some participants indicating that it was a source they trusted and others expressing that they did not trust government information at all.

Participants appeared sceptical of information generally, even from sources deemed trustworthy. This scepticism related to:

- false reporting of case numbers:
- scaremongering and/or overexaggerating the pandemic:
- too much conflicting information:

It was also generally difficult for participants to know where to turn for accurate information:

Awareness of personal biases was expressed where hesitant participants recognised that:

The main messages about the vaccine taken from the sources of information seen were:

- the rollout was going well
- there are side effects and potential causes for concern
- participants need to do further research

7 . Findings by demographic characteristics

Themes across demographic characteristics were evident with some groups indicating more specific reasons, and sources, of vaccine hesitancy.

Age

While younger age generally was identified as leading to lower risk perception across our sample, more specific findings were identified in participants under 18 years old.

Under 18-year olds indicated more reliance on social media for their information on vaccines:

Additionally, this group more commonly cited conspiracy theories as reasons for hesitancy than participants over 18 years:

Ethnic group

Trust appeared to be an important factor in determining vaccine hesitancy particularly for Black and Black British participants.

Themes of racism and previous failings led to much stronger concerns and indications of distrust around the current vaccine, and more generally of those in government:

This distrust increased hesitancy as participants were not comfortable with taking the word of the government or medical professionals in terms of what the side effects of the vaccine were, or could be, and what exactly is in the vaccine:

Participants indicated that having Black people from the medical community come and speak to them had helped in reducing their hesitancy to the vaccine:

Sex

Whilst there were no overall marked differences between male and female participants in terms of vaccine hesitancy, concerns and worries about the vaccine's impact on fertility were a much stronger theme for female participants. It is important to note that, since data collection took place, more information and advice on vaccination during pregnancy and evidence of effects on fertility have been updated.

Information on fertility shared through word of mouth was also more common among female participants. This information tended to concern negative side effects that increased hesitancy.

Additionally, when asked about reducing their hesitations, female participants more commonly desired research specifically on the vaccine and potential effects on fertility.

8 . Glossary

Opinions and Lifestyle Survey

The Opinions and Lifestyle Survey (OPN) is currently a weekly survey with a focus on collecting information on how the coronavirus pandemic is affecting people and households in Great Britain.

Purposive sampling

A type of non-probability sampling where participants are selected for their characteristics and in line with the objectives of the study.

Semi-structured interview

A semi-structured interview is a qualitative data collection method where the researcher asks participants a set of pre-determined but open-ended questions.

9 . Data sources and quality

Sampling and recruitment

Participants aged 16 to 29 years who had previously expressed being “fairly unlikely” or “very unlikely” to get a coronavirus (COVID-19) vaccine and happy to be contacted for further research were purposively recruited from the Opinions and Lifestyle Survey (OPN). A primary research aim was to look at whether participants had changed at all in their hesitancy to the vaccine therefore “fairly unlikely” and “very unlikely” OPN respondents were selected to explore this. To ensure a balanced sample across characteristics previously identified as influencing hesitancy (Age and Ethnic group), sample targets were set and met by the first 17 people to accept. All 17 went on to be interviewed. All but one participant lived in England, with one participant from Scotland.

Table 1: Purposive sample characteristics

Characteristic	Count
Male	9
Female	8
“Very unlikely” to have vaccine	9
“Fairly unlikely” to have vaccine	8
White ethnic group (inc. European)	8
Mixed ethnic group	2
Black or Black British ethnic group	4
Asian or Asian British ethnic group	3

Source: Office for National Statistics - Opinions and Lifestyle Survey

Notes

1. The sample characteristics in Table 1 are not mutually exclusive and do not sum to 17.

Data collection and analysis

Semi-structured interviews lasting around 60 minutes were conducted either online or over the telephone (depending on participant preference) using an interview topic guide. Semi-structuring was selected to provide evidence for the main research questions while allowing the freedom for participants to explain the nuances of their reasons for hesitancy and explore what might influence these to change. Topics included general pandemic experience, reasons for vaccine hesitancy, experiences and views of family and friends, and sources of information about the vaccine. The topic guide was peer-reviewed prior to interviewing and a pilot interview was conducted to test the materials. Each interview was attended by a lead interviewer and an observer. Observers entered detailed notes into an observation framework as the interview progressed.

Interviews were then manually transcribed, and interview content was organised. The content was summarised and sorted into an Excel spreadsheet framework structured to mirror the interview guide and research questions. This allowed for exploration of themes within and across discrete research aims. Coding and qualitative analysis was then conducted to produce the findings detailed previously. All data were securely stored in line with [ONS security procedures](#).

Strengths and limitations

The main strengths of this study are:

- provides in-depth understanding that complements quantitative survey outputs that can inform on the reasons for vaccine hesitancy
- the purposive sample allowed consideration of demographic characteristics previously found to be associated with vaccine hesitancy within the analysis (although they are not generalisable to other populations)
- semi-structured interviews allowed for novel insight through flexibly combining participant experience and research-focused prompts and probes
- the interview guide was designed with stakeholder input to collect data that would meet user needs

The main limitations of this are:

- findings are relevant to factors such as available information or extent of vaccine rollout, that have changed and thus related opinions and associated hesitancies, may have changed
- because of our sample design, our results are predominantly based on the views of young adults in England, and therefore are not able to consider differences across different parts of Great Britain
- no participants had booked to receive, or received, a vaccine; their views may be different from those who had hesitancies at the time of initially answering the OPN but gone on to be vaccinated
- not all contacted participants responded during the recruitment process and thus our participants may have exhibited different behaviours, or held different opinions, regarding vaccination than those who were not able or willing to take part

10 . Related links

[Coronavirus and vaccine hesitancy, Great Britain](#)

Bulletin | Released 9 August 2021

Hesitancy towards a coronavirus (COVID-19) vaccine, based on the Opinions and Lifestyle Survey (OPN) covering the period 23 June to 18 July 2021. Additional analysis examines hesitancy in areas of Great Britain between 7 January to 28 March and 28 April to 18 July 2021.

[COVID-19 vaccine refusal, UK: February to March 2021](#)

Bulletin | Released 7 May 2021

Exploring the attitudes of people who are uncertain about receiving, or unable or unwilling to receive a coronavirus (COVID-19) vaccine in the UK.