Office for National Statistics

COVID-19 vaccine refusal, UK QMI

Quality and Methodology Information for COVID-19 vaccines refusal study, detailing the strengths and limitations of the data, methods used, and data uses and users.

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1 . Output information

The output is:

- produced on an ad hoc basis
- compiled based on third party data
- covers the United Kingdom

2 . About this Quality and Methodology Information report

This quality and methodology report contains information on the quality characteristics of the data (including the European Statistical System five dimensions of quality) as well as the methods used to create it. The information in this report will help you to:

- understand the strengths and limitations of the data
- learn about existing uses and users of the data
- understand the methods used to create the data
- help you to decide suitable uses for the data
- reduce the risk of misusing data

3 . Important points

The COVID-19 vaccines refusal study bulletin is derived from data collected during a UK qualitative research study by IFF Research from February to March 2021.

The qualitative research study was commissioned to explore the attitudes of groups who are uncertain about receiving, or unable or unwilling to receive COVID-19 vaccines across the UK. This study helps us better understand the reasons for refusal and concerns about receiving the COVID-19 vaccine.

The main research questions for the study were:

- Why are certain individuals unwilling to receive COVID-19 vaccines?
- Why are certain individuals undecided about receiving COVID-19 vaccines?
- Why are certain individuals unable to receive COVID-19 vaccines?
- How do attitudes differ between social groups?

We sampled 50 adults for the study, because the audience for this sample was hard to reach and not easy to identify, there were no restrictions or hard quotas on sample demographics. At the recruitment stage respondents were categorised as unwilling, uncertain, or unable to receive COVID-19 vaccines according to their responses to screener questions. The final sample was comprised of 30 unwilling, 16 uncertain and 4 unable participants.

Participant recruitment was conducted through a combination of specialist recruitment agencies and IFF Research recruitment. Participants were picked from those who had previously indicated they would refuse COVID-19 vaccines, when responding to the Office for National Statistics' (ONS) Opinions and Lifestyle (OPN) and the Clinically Extremely Vulnerable (CEV) surveys. The recruitment agencies operate their own online community and put in place advanced searches ensuring that they can target respondents before contacting them for recruitment. In addition to this, they recruit using free found methods that include blogs, online research and via community message boards.

A recruitment screener was asked to use questions on attitudes to receiving COVID-19 vaccines and to collect demographic information. A recent Lancet study suggested that those with certain characteristics are more likely to refuse the vaccine. Based on the study, the following groups were recruited via OPN and CEV surveys: parents with dependent children or those aged 30 to 49 years, those with lower educational attainment, those on lower incomes, those aged 50 to 64 years, ethnic minority groups, and young adults. Participants gave explicit informed consent through the screener and a consent form they completed before taking part in the interview. They were informed of the research purpose, sponsor, confidentiality, and that it was voluntary. Each participant was invited to take part in a 70 minute in-depth interview online or via telephone.

Several approaches were used to maximise participation in the study. This included: offering flexibility in appointment times and rescheduling, text reminders, sensitively discussing the topic of COVID-19 vaccines, providing translation options and carefully wording recruitment materials. Participants were thanked for their time and effort through vouchers of £50 per in-depth interview.

The interview guide was informed by behavioural frameworks, principally COM-B. The questions asked of participants covered capabilities, opportunities, and motivations.

Researchers manually transcribed and coded all the interviews. Coding was informed by the COM-B model. Thematic analysis was then carried out and quality assured. Analysis sessions were held with IFF Research and ONS, and interim findings were reviewed by ONS and a wider steering group to interpret findings and generate further hypotheses and analytical questions. The steering group was established to oversee the design and implementation of the study, as well as final recommendations. The group consisted of ONS research, methodological, statistical, behavioural science and qualitative experts; along with individuals from other government departments, the Prime Minister's Office and academics.

There are no datasets to accompany this study because this is a qualitative study.

The interviews took place before the Medicines and Healthcare Products Regulatory Agency published their findings in April 2021 showing a possible link between COVID-19 Vaccine AstraZeneca and blood clots.

4 . Quality summary

Overview

This report relates to the ad hoc qualitative study: Exploring the attitudes of groups who are uncertain about receiving, or unable or unwilling to receive COVID-19 vaccines across the UK.

Uses and users

This qualitative research study was commissioned to explore the attitudes of groups who are uncertain about receiving, or unable or unwilling to receive COVID-19 vaccines across the UK.

Uses of the data include:

- informing policy regarding the COVID-19 vaccination programme and roll-out
- informing communications related to COVID-19 vaccines in the UK

Key stakeholders are:

- the Cabinet Office
- the Scientific Advisory Group for Emergencies (SAGE)
- the Department for Health and Social Care
- the Prime Minister's Office

Strengths and limitations

The main strengths of the qualitative research study include:

- it generates richer and more nuanced insight than other Office for National Statistics (ONS) surveys because of it being an in-depth study
- it meets user needs; the interview guide was developed with customer consultation and design expertise was applied in the development stages
- it is flexible, allowing the interview to be participant specific, with relevant prompts or probes to ensure key information is captured
- it captures the personal circumstances of individual participants within the key demographic groups with varying reasons for uncertainty, unwillingness, or lack of ability to receive COVID-19 vaccines

The main limitations of the qualitative research study include:

- quantification of the themes is not possible as sample size is limited to 50 participants.
- our findings are not statistically generalisable to other populations or the wider population because we have used a non-probabilistic sampling method – non-proportional quota sampling; it would also not be meaningful to compare the personal characteristics of our study population, or different attitudes towards COVID-19 vaccines, with those of the general population (for example, through an ONS survey)
- findings relate to certain circumstances (for example, the extent of the vaccine roll-out in the UK, or the of information that was in the public domain at the time of interview) that have since changed, and therefore attitudes or behaviours may have changed
- non-response bias: our participants may be different attitudinally and behaviourally than those who are not participants because of their willingness and ability to take part; non-participants are those we either could not contact or have not contacted, and those who declined to participate or cancelled their interview.

5 . Quality characteristics of the COVID-19 vaccines refusal study data

Accuracy and reliability

This is a qualitative study of 50 interviews, not quantitative. Therefore, quantification or estimates of accuracy are not possible, and not the purpose of this study. The reliability of this study can be assessed through comparing with similar research.

The data for the study was collected between February and March 2021. There was a six-week time lapse between the end of field work data collection and the publication of findings. During this time, transcription, analysis, quality assurance and report writing were carried out.

Concepts and definitions (including list of changes to definitions)

Participants is the term that we have used to describe the individuals taking part in this qualitative research study. The research consisted of in-depth interviews and did not take the shape of a traditional survey with respondents.

Quantitative research is the process of collecting and analysing numerical data. It can be used to find trends and averages, test relationships between variables, and generalise results to wider populations. For surveys, quantitative research often employs random probability sampling.

Qualitative research is the process of collecting and analysing non-numerical data, through methods such as in-depth interviews and focus groups. It is used to understand participants' beliefs, experiences, attitudes, behaviour, and interactions between them in breadth and depth. The data collected is non-numerical. It employs purposive sampling techniques; in this, statistical inference is neither possible nor the intention.

Screener questions are the questions asked during the recruitment process to ensure that potential participants fit the research criteria for the study and to help monitor the achievement of purposive sampling criteria targets.

A steering group is set up to steer the work undertaken by others. The role of the steering group for this study was to advise on the development of the COVID-19 compliance study research activities conducted by IFF Research and to act as a "critical friend". The group members were chosen to bring expertise from a range of different perspectives, and to ensure that advice provided was appropriate and balanced. Their responsibilities included:

- providing advice and guidance
- identifying and helping mitigate risks
- evaluating and prioritising the research
- participating in discussions of the findings and their interpretation
- guiding recommendations for further work

Lockdown is the shutting down of all non-essential activities to slow the spread of the coronavirus (COVID-19). The first national lockdown was introduced on 23 March 2020. There have been various national and local lockdowns applied across the devolved nations, with varying restrictions and for different time periods.

6 . Methods used to produce the COVID-19 vaccines refusal study data

How we collect the data, main data sources and accuracy

A qualitative approach was selected in order to provide rich behavioural insight. In-depth interviews with individuals were chosen to allow a detailed exploration of individual's circumstances and decision-making processes. This approach also allowed participants to express themselves freely without the judgement of others, which was important when dealing with a highly emotive topic.

There were 50 adults sampled for the study. Since the audience for this sample was hard to reach and not easy to identify, there were no restrictions or hard quotas on sample demographics. The respondents were categorised as unwilling, uncertain, or unable to receive COVID-19 vaccines. The final sample comprised 30 unwilling, 16 uncertain and 4 unable participants.

A recent Lancet study suggested that those with certain characteristics are more likely to refuse COVID-19 vaccines. Based on the study, the following groups were recruited:

- parents with dependent children
- those aged 30 to 49 years
- those with lower educational attainment
- those on lower incomes
- those aged 50 to 64 years
- ethnic minority groups
- young adults

Researchers from IFF Research conducted the interviews on a platform agreed with the participant (typically Zoom but also MS Teams, Skype or by phone). These interviews were recorded, allowing the researcher to revisit the interview and compile detailed notes from it.

Each researcher wrote up their interviews to a standardized template within days of the interview. This allowed them to ensure nothing of importance was missed or mis-represented and to capture the nuances that they were attuned to from having completed the interview. Re-immersing themselves in the content of what the participant said and the way in which they said it, allowed the researcher to revisit, and potentially challenge, their initial view on the implications of the discussion.

How we designed the research tools

This is an ad hoc study with a focus on collecting qualitative information on attitudes towards receiving COVID-19 vaccines. The questions and probes in the interview guide were informed by steering group members who advised on the design and implementation of the study.

The interview guide was developed together with the steering group for this project. The main topics of interest consisted of: household composition and economic activity; their behaviours during the pandemic (i.e. what they were doing, how this was different to pre-pandemic, and related challenges and opportunities); their reasons for refusing or being uncertain about receiving COVID-19 vaccines; their understanding and experiences of vaccines in general; sources of information about the pandemic; wider perceptions of the COVID-19 vaccine roll-out and what and who has been influencing these perceptions.

How we process, analyse and interpret the data

The data from each interview was manually transcribed and coded. Coding was informed by the COM-B model. Thematic analysis was then carried out and quality assured. Analysis sessions were held with IFF Research and Office for National Statistics (ONS). ONS and the wider steering group reviewed interim findings to provide advice on interpretation of the findings and generate further hypotheses and analytical questions.

Researchers began the analysis process in the interviews themselves. Within the session, the researchers continually weighed up the implications of what the participant said – and, using the interview guide as a framework, devised relevant follow-up questions (which helped draw out additional insight to meet the study objectives). Through this process of active listening and "weighing up" of feedback, the researcher left the session with an initial view on the implications of the discussion. As noted above, the researcher then used the recording and notes made within the interview to summarise the interview content and tone within a bespoke in-house Excel-based analysis framework (with a row for each respondent and columns for each area of the objectives).

This framework was then interrogated by multiple members of the research team, who assessed what were the key recurring themes and take-outs from each audience, within each area of the research objectives. This initial individual interpretation was then brought to a director led analysis session, in which researchers developed their thinking regarding the findings and their implications. Individual researchers' tentative interpretations of the findings were discussed, with careful reference to the evidence, to verify interpretations of the findings through researchers applying a degree of scrutiny and challenge to each other's perspectives on what the findings meant.

From this session, further hypotheses and analysis questions were agreed, for investigation with reference to the analysis framework. This session determined emerging themes and factors influencing decision-making: these were formally coded by adding new "coding" columns within the analysis framework, allowing us to readily spot patterns in themes and influences that recurred, as well as whether they tended to recur more prominently among some audience sub-groups than others. In line with the interview guide and analysis framework design, the analysis session was informed by the COM-B framework.

The ONS team and steering group's feedback on the interim findings was incorporated into the final analysis, to shape the final "story" of the findings.

How we quality assure and validate the data

IFF Research has written quality standards that form part of their induction processes and inform a rolling programme of internal training and appraisal. These are underpinned by a series of "how to" guides for each aspect of the research process, which provide a formal checklist for researchers to use and a record to ensure that each task is completed. The IFF Research directors provided leadership with a focus on ensuring quality enacting the following:

- directors briefed the research team conducting interviews on what to look for from the discussions; thus, supporting on-point probing and “within interview” initial analysis of what each interview told us
- a random sample of interviews were listened to by quality control staff and feedback was given
- we ensured that respondents gave informed consent in accordance with MRS guidelines and the GSR Code of Ethics; ONS also approved the study through their own ethics board
- any personal information or data that may make a participant identifiable was only ever transferred by a secure and encrypted file transfer system; the data was then saved on a secure server and access was granted on an individual basis to those to whom it was vital
- personal data is not kept longer than necessary and is due to be deleted 12 months from the end of the project at the latest
- reporting outputs were checked sequentially by two researchers to ensure respondent confidentiality has been maintained
- all activity relating to the secure files (copying, amending etc) was recorded on the Data Asset Register which was periodically reviewed by the research manager
- IFF Research’s recruitment from the OPN and CEV Surveys was conducted by CATI (Computer-Assisted Telephone Interviewing); this ensured that individual interviewers could not view the sample database but only contact details on a record-by-record basis; any data which was required to allocate an interview to a quota but did not need to be referenced in the interview was not made available to the researchers conducting the in-depth interviews
- personal data was not exported or transferred outside of the UK
- all documents were labelled with standardised labels (“public”, “controlled”, “confidential” or “restricted”) to indicate their degree of sensitivity
- we also explained to research participants, at the point of interviewing them, their rights to see the personally identifiable data we hold on them, to change these data, or to have them deleted
- directors reviewed and signed-off analysis framework before use
- all research team members entered summaries of interviews into the analysis framework; the research managers reviewed the quality of initial summaries entered by each researcher, including level of detail captured and relevance of responses; they then gave pointers on both interviewing approach and analysis, to support improvement; data entered into the framework was sometimes revised as a result; the research managers reviewed this framework for detail and quality
- there was an assessment of the factors shaping the attitudes of all participants, in relation to receiving COVID-19 vaccines; this was analysed within the framework of the COM-B model, that is, considering how capability and opportunity interact with motivation to shape behaviour
- researchers brought their interpretation to a series of director-led analysis sessions for discussion and challenge; within this session a series of codes and themes were presented, debated and refined; the refined interpretation was then written up as initial findings
- findings were shared iteratively with the steering group, which gave an opportunity to pose further hypotheses and questions; both the discussion guide and analysis approach evolved as a result
- all report sections were drafted by the research manager, the associate director and directors with directors drafting summaries and conclusions; findings drafts were sense-checked against analysis frameworks by another project team member; and reviewed by the IFF Research directors

How we disseminate the data

As the project progressed IFF Research delivered:

- one written report of interim findings from 29 interviews, feedback on which was used to inform our analysis of final interviews
- a full written report of findings at the conclusion of the study

The interim findings report was reviewed by the steering group and discussed with ONS, to explore the emerging findings and their implications. Significant new findings that emerged after this interim report were raised with ONS via our regular project management catchups and in the final analysis session attended by ONS.

7 . Other information

Demographic group characteristics

The following groups took part in the study:

- parents
- those on lower incomes (defined as earning less than £18,000 a year after tax)
- those with lower educational attainment (defined as having no educational or vocational qualifications)
- those from ethnic minority backgrounds
- clinically extremely vulnerable people

These groups are not mutually exclusive.