



# BMJ Open Novel intervention to promote COVID-19 protective behaviours among Black and South Asian communities in the UK: protocol for a mixed-methods pilot evaluation

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## ABSTRACT

**Introduction** Culturally appropriate interventions to promote COVID-19 health protective measures among Black and South Asian communities in the UK are needed. We aim to carry out a preliminary evaluation of an intervention to reduce risk of COVID-19 comprising a short film and electronic leaflet.

**Methods and analysis** This mixed methods study comprises (1) a focus group to understand how people from the relevant communities interpret and understand the intervention's messages, (2) a before-and-after questionnaire study examining the extent to which the intervention changes intentions and confidence to carry out COVID-19 protective behaviours and (3) a further qualitative study exploring the views of Black and South Asian people of the intervention and the experiences of health professionals offering the intervention. Participants will be recruited through general practices. Data collection will be carried out in the community.

**Ethics and dissemination** The study received Health Research Authority approval in June 2021 (Research Ethics Committee Reference 21/L0/0452). All participants provided informed consent. As well as publishing the findings in peer-reviewed journals, we will disseminate the findings through the UK Health Security Agency, NHS England and the Office for Health Improvement and Disparities and ensure culturally appropriate messaging for participants and other members of the target groups.

## INTRODUCTION

In the UK, the COVID-19 pandemic has inflicted a disproportionate burden of illness and death who define themselves as belonging to the Black and South Asian communities.<sup>1–4</sup> It is widely accepted in the public health community that health promotion interventions should be adapted for the target population.<sup>5</sup> Therefore, culturally appropriate interventions to promote COVID-19 health protective behaviours among people

## STRENGTHS AND LIMITATIONS OF THIS STUDY

- ⇒ This study is a preliminary pragmatic evaluation of a novel intervention designed rapidly to address an urgent public health problem—lower uptake of COVID-19 health protective behaviours, including testing and vaccination, among people in the Black and South Asian communities.
- ⇒ The study will use a number of novel approaches to public health research, including using automated text messaging from general practices to recruit participants rapidly, which will allow us to reach a large number of people belonging to the target population, and using mobile telephone number as an identifier to link preintervention and postintervention data, rather than personal data, to minimise risk of disclosure.
- ⇒ The quantitative measures will not be formally validated because of time constraints.
- ⇒ Reliable denominator data are not available for the target group, so we will not be able to judge what proportion of the target population we reach.
- ⇒ The intervention is only available in English and, therefore, data collection will be carried out only in English, which means that our results will not be generalisable to those who are not confident and competent communicating in English.

from ethnically diverse communities are needed.<sup>6–9</sup> Black and South Asian communities have been shown to be less likely to engage in COVID-19 testing and vaccination programmes than White communities.<sup>10–14</sup> The evidence of effectiveness of interventions to promote vaccine uptake in adults does not currently provide clear guidance in this context.<sup>15</sup>

A culturally appropriate intervention aiming to promote health protective

behaviours has been coproduced with people from Black and South Asian (Indian, Bangladeshi and Pakistani) communities (report about development in preparation), based on qualitative research carried out in 2020.<sup>16</sup> The intervention development was based on our team's previous work to promote uptake of viral hepatitis testing.<sup>8</sup> We developed the film script and other content in collaboration with a wide range of Black church and community organisations, the Muslim Council of Britain, the British Sikh Association and Hindu organisations, among others as well as a number of primary care professionals and a professional film maker.

The intervention has two variations, one for people who define themselves as from the Black community and one for people who define themselves as from the South Asian community. The justification for this was the shared cultural identity within these groups and the different cultural experience between these two groups; however, we do recognise that this is a simplification: within these groups, there is a wide range of subgroup identities and lived experiences, and intersectionality with other characteristics.<sup>17 18</sup>

Each intervention variation comprises a 3.5 min YouTube film and an electronic leaflet (e-leaflet) that can be viewed on a mobile device or computer.<sup>19</sup> Available in English only, the intervention promotes COVID-specific health protective behaviours including handwashing, wearing masks, social distancing, room ventilation, testing and vaccination, in a culturally appropriate manner. It is intended to be widely distributed through general practices, national health bodies and social media.

The aims of the study are to (1) understand how people from the Black and South Asian communities understand and interpret COVID-19 health messages in the intervention, (2) evaluate its effect on intentions to carry out COVID-19 protective behaviours and (3) capture health professionals' experiences of offering the intervention.

## METHODS AND ANALYSIS

This is a mixed methods study with three workstreams. Workstream 1 is a qualitative focus group study aiming to understand whether people from Black and South Asian communities interpret and understand the intervention's messages as intended. Workstream 2 is a before-and-after questionnaire study examining the extent to which the intervention changes intentions and confidence to carry out COVID-19 protective behaviours. Workstream 3 is a qualitative interview study with participants in workstream 2, exploring their views of COVID-19 protective behaviours, and health professionals involved in implementation, to understand their experiences of offering it.

All data will be collected in English, due to time constraints, which will not allow for translation and interpreters. We will recognise this as a limitation of the study.

Recruitment of participating general practices will start in July 2021 and data collection will be carried out between 1 September 2021 and 31 January 2022.

## Workstream 1: focus groups

### Participants and recruitment

The participants will be people aged 18+ who identify as being from Black or South Asian communities and registered with participating general practices, which will be recruited through the National Institute of Health and Care Research Local Clinical Research Networks. For this workstream, potential participants will be approached by healthcare professionals during consultations. The practice will send a participant information sheet (online supplemental file 1) and consent form (online supplemental file 2) to those who show interest in participating. The information sent by the practice will ask them to contact the researchers directly if they are willing to participate. We will attempt to gain some heterogeneity in the sample by purposive sampling by age group and gender. Participants will be offered a £25 voucher for taking part in this part of the study.

### Data collection

We will carry out two virtual focus groups, each of 5–7 people, one with people from the Black community and one with people from the South Asian community. Before the focus groups, we will ask participants to provide informed verbal consent. At this point, all participants will be informed that communication between participants must be respectful and that if their comments are perceived to be disrespectful, they will be moved to a breakout room with a research assistant.

Each focus group will be hosted by an experienced qualitative researcher and two research assistants, who will ensure that all participants have the opportunity to express their views. One research assistant will be responsible for managing the technology and the other for monitoring group dynamics, intervening where necessary to manage any issues that may arise, for example, conflict, rudeness or some participants not being heard. Participants in each focus group will watch the film and then the qualitative researcher will prompt discussion using a Topic Guide (online supplemental file 3). We will assess comprehension and emotional responses by:

- ▶ Checking if respondents are interpreting key messages in the way they are intended.
- ▶ Determining whether any elements are difficult to understand or offensive.
- ▶ Checking whether they found the messages persuasive.

The focus groups will be video recorded, with consent. If participants do not agree to be recorded, they will be excluded from the focus group (they may be offered an interview within workstream 3). The researcher will ask the participants to provide information on age group, gender and more detail of ethnic group.

### Data management and analysis

The recordings will be transcribed verbatim. Recordings and transcriptions from the focus groups will have personal information replaced by an identification number and will be stored on the University of Surrey

server. The data will be analysed using Framework Analysis.<sup>20</sup> We will initially develop an analytical coding framework based on previous knowledge of the topic and initial impressions from the data, which will be refined iteratively after rereading each transcript, adding new codes if needed. This will lead to the identification, definition and interpretation of themes. Subsequently, the new framework will be reapplied to the coded data to refine the interpretation further. Two members of the research team will review and compare codes and theme findings to ensure congruence.

## Workstream 2: before-and-after questionnaire study

### Participants and recruitment

The participants will be people aged 18+ who identify as being from Black or South Asian communities and registered with participating general practices. Participants will be invited to take part by their general practices either during primary care consultations or by text message:

#### *From primary care consultations*

During consultations for mild illness or chronic disease management, primary care health professionals at the participating practices (recruited through the National Institute for Health Research Clinical Research Network) will approach people who are shown on their primary care record as identifying as from the Black or South Asian community and aged 18+ to take part in the study. The health professional will provide potential participants with the information sheet (online supplemental file 4), which explains the study and advises that the questionnaire will only take a few minutes to complete. They will arrange for a text to be sent to the potential participant by the secure AccuRx system (<https://www.accurx.com/>), which complies with national standards and legislation in relation to data security and is used in many general practices for one-way text correspondence. The wording of the text will be:

Dear [Name], Thank you for discussing the research study about preventing COVID-19 among people from Black and Asian groups with us when you came to the practice. I attach further information about the study. If you are interested in taking part, here is a link to a form where you can confirm that you agree to do so [link]. From (name of practice)

The link will lead the potential participant to the online consent form (online supplemental file 5) on an electronic survey platform (Qualtrics Software V.October 2021, Qualtrics 2020, Provo, Utah. <https://www.qualtrics.com>).

#### *By text message*

Participating general practices (recruited through the National Institute for Health Research Local Clinical Research Networks) will identify people on their registered patient lists who are recorded as identifying as from Black or South Asian communities and aged 18+. The

practices will approach potential participants through the AccuRx system, a novel approach. The wording of the text will be:

Dear [Name],[Name of practice] is taking part in a study to test a film and leaflet about preventing COVID-19 among people from Black and Asian groups. We are doing this with a research team based at the Royal Surrey Foundation Trust. We would like to invite you to take part. Here is a link to some further information about what the study involves. From [name of practice]

The link will direct the potential participant to the participant information sheet (online supplemental file 4, as for recruitment via primary care consultations) and subsequently to the consent form (online supplemental file 5, as for recruitment via primary care consultations) both provided on the electronic survey platform. [Figure 1](#) illustrates the recruitment process.

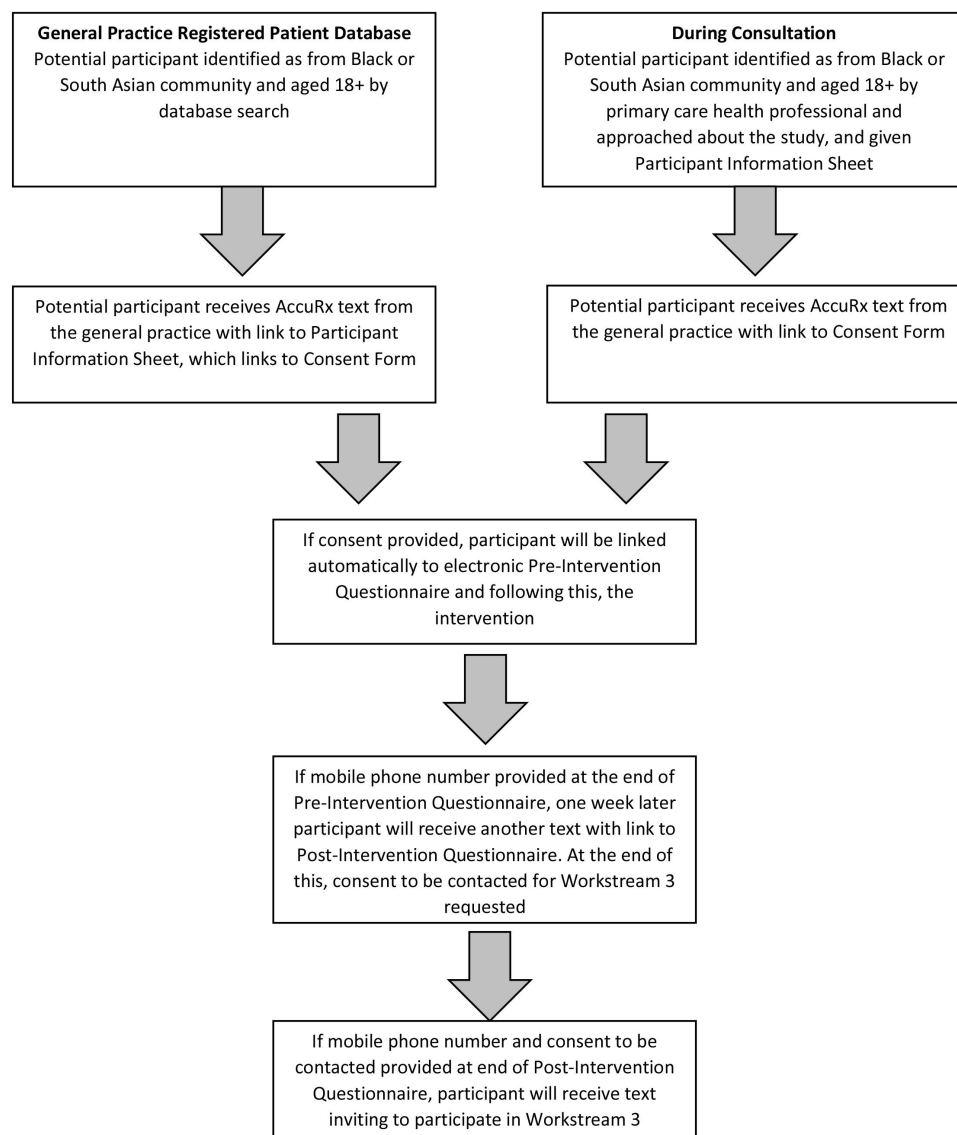
#### Sample size

Because this is a novel intervention in a novel context, and it is crucial to roll out the intervention as soon as possible, during the pandemic, we have not had time to generate sufficient data in advance of this study to inform what the size of effect on the primary outcome might be, nor indeed which outcome would be most appropriate as the primary outcome. We, therefore, will aim to maximise the sample size, recruiting as many participants as possible, within the time constraints, so as to maximise the chances of high precision around our estimates of the proportion who changed their confidence in the vaccination programme's benefit and the proportion who changed their intention to be vaccinated. We will also be able to generate potential effect size of a meaningful primary outcome for a future study, for example, the proportions intending to be vaccinated before and after the intervention.

We will recruit at least seven large practices (with a total population approximately 40 000 registered patients) targeting those with a relatively high proportion of people from the Black or South Asian communities. We do not know which practices will respond to our invitation and we recognise that recording of ethnicity in general practice records is highly incomplete,<sup>21</sup> so it is not possible to know how many people are eligible in each general practices in advance of data collection. We think it is reasonable to aim to recruit 600–800 participants who have not yet been vaccinated providing data. However, we recognise that response rates are likely to be lower in this study of healthy people who may be less interested in the topic than in studies recruiting people with a specific health condition.<sup>22–24</sup>

#### Data collection instruments and collection

Once the participant consents, he or she will be linked automatically to the Pre-Intervention Questionnaire on the electronic survey platform (online supplemental file



**Figure 1** Workstreams 2 and 3 recruitment flowchart.

6). At the end of the Pre-Intervention Questionnaire, the participant will receive a link to the 3.5 min YouTube film and e-leaflet. Also, at the end of the Pre-Intervention Questionnaire, the participant will be given the option to provide their mobile phone number, so that the research team may send them a questionnaire by text a week later. If the participant provides their mobile phone number, the research team will send the participant a text with a link to the electronic Post-intervention Questionnaire (online supplemental file 7) 1 week later. The wording of the text will be:

Dear [Name], Thank you for completing the questionnaire about preventing COVID-19 among people from Black and Asian communities last week. If you follow this link you will find a further short questionnaire about COVID-19 prevention and what you thought about the film and the e-leaflet [link]. From Professor Ala and the research team.

The Pre and Post-Intervention Questionnaires will be developed rapidly for the purposes of this study responsive to an urgent public health need and will not be validated formally. Questionnaire development will be based first on qualitative evidence from our previous study<sup>16</sup> and second on the idea of measuring vaccine hesitancy, not simply refusal, because refusal is an extreme manifestation of hesitancy.<sup>25</sup> We are also interested in vaccine confidence, which can be conceptualised as the inverse of hesitancy.<sup>26</sup> Common reasons for vaccine hesitancy have been conceptualised as ‘confidence, complacency and convenience’;<sup>27</sup> so we will devise questions around these three concepts, adding in extra questions in relation to concerns about safety and efficacy in the vaccine because these are prominent themes in previous research.<sup>28</sup>

#### Data management and analysis

The research team will upload the data sets onto the secure University server, at which time the electronic

survey platform data sets will be destroyed. Responses to Pre and Post-Intervention Questionnaires will be linked using mobile phone number as the unique identifier. The participants will then be assigned a non-identifiable identification number and mobile phone numbers will be stripped from the data set.

We will identify the number of people completing Pre and Post-intervention Questionnaires. We will calculate response rates for both questionnaires based on the number of people the practice patient lists identified as being from the Black or South Asian communities. We recognise that we may receive more than one response from a single individual because we are using two methods of recruitment. To address this, for the Pre and Post-intervention Questionnaires separately, we will examine whether there are duplicate mobile phone numbers, where these have been provided. Otherwise, we will not be able to identify duplicates because we will have no identifiable data. We will recognise this as a limitation of the study.

We will calculate the proportions of participants who give each response to each questionnaire and report these as percentages. We will calculate the proportion who are vaccine hesitant (reporting refusing vaccination, not intending to take it up or not sure about taking up vaccination if it was offered to them). Using data from participants who complete both questionnaires, we will calculate the proportions who changed their confidence in the vaccination programme's benefit, who changed their reported COVID-19 protective behaviours and changed their vaccine hesitancy.

### Workstream 3: qualitative interview study

#### Participants and recruitment

##### *People who took part in workstream 2*

We will identify participants from those who agree that the research team may contact them by text at the end of the Post-Intervention Questionnaire in workstream 2 (see [figure 1](#)). We will select people from this group aiming to recruit 20 people (10=Black ethnicity; 10=South Asian ethnicity). They will be purposively sampled according to whether they indicate they have changed their intention to be vaccinated against COVID-19 or not after watching the YouTube film (see [table 1](#)). The rationale for including those who do and do not change their intention is to explore the role the film played, if any, in changing their mind. In addition, we will explore their experience of the process by which they are provided with the link to the film and whether this could be changed or improved. We

will stratify by age group and gender if we have sufficient response to recruitment to workstream 3.

After initial agreement by mobile phone, potential participants will be sent a copy of the participant information sheet (online supplemental file 8). Participants will be offered a £25 voucher for taking part in this part of the study. They will be given at least 48 hours after which time the researcher will make contact again to find out whether they are willing to participate.

#### *Health professionals*

We will interview 10 health professionals from the participating general practices, the aim being to explore the process of inviting people to receive the intervention, for example, practical difficulties with identifying and asking patients to take part, negative or positive feedback from participants, reasons for not inviting potential participants. Potential participants will be sent a copy of the participant information sheet (online supplemental file 8). They will be given a minimum of 48 hours before the researcher makes contact again to ascertain their decision regarding participation.

#### Data collection instruments and collection

##### *People who took part in workstream 2*

Prior to the interview, the researcher will ask participants to provide video-recorded informed consent (online supplemental file 9). Interviews will be conducted by an experienced qualitative researcher virtually and will last 15–30 min. The interview will be guided by a topic guide (online supplemental file 10) and, with permission, video recorded.

#### *Health professionals*

Prior to the interview, the researcher will ask participants to provide audio-recorded informed consent (online supplemental file 9). Interviews will be conducted by an experienced qualitative researcher via telephone. The interviews will last 15–30 min and will be guided by a topic guide (online supplemental file 11).

#### *Data management and analysis*

Recordings will be transcribed verbatim. Recordings and transcriptions will be stored on the University of Surrey secure server. Data will be analysed thematically using Framework Analysis as described for workstream 1.<sup>20</sup> Data from patient and professional interviews will be compared to determine whether there are themes that are common to both groups.

#### Patient and public involvement

We have consulted widely to develop this protocol with Black church and community organisations, Muslim Council of Britain, British Sikh Association, Hindu, Buddhist and Christian organisations, among others. We have established a national steering committee with representatives of these organisations to ensure that their perspectives are considered as being of equal merit to the 'expert' opinion. Representatives of the community

**Table 1** Workstream 3 purposive sampling frame

	Black	South Asian	Total
Intend to be vaccinated (or been vaccinated)	5	5	10
Do not intend to be vaccinated	5	5	10
Total	10	10	20



organisations and the national steering group were sent drafts of the protocol for comment during the few weeks of development. We collected their opinions through written comments and telephone conversations, as there was insufficient time to convene meetings.

## ETHICS AND DISSEMINATION

### Ethics approval and participant consent

The study received Health Research Authority approval in June 2021 (Research Ethics Committee Reference 21/LO/0452).

All participants who are not participating in their role as health professional will be first approached by a health professional, who will provide an information sheet requesting consent to be contacted by the research team. Consent will be recorded using an audio or videorecording or on the electronic survey platform.

Participants may withdraw their consent from the study at any stage. If a participant states that they no longer wish to take part or contribute to the study, they will be withdrawn. Data collected up to the point of withdrawal will be included in the study analysis, unless the participant wishes us to destroy the data. If a participant decides to withdraw from the study, their healthcare or legal rights will not be affected in any way.

### Data security and confidentiality

No data will be shared outside of the direct care team at any point until after the potential participant's consent. Individual identifiable data will only be accessible by the researchers after consent. Once the data are collected (with consent), these will be uploaded to the University of Surrey server in files that are encrypted, password-protected and accessible only to named members of the research team. The University server is maintained in accordance with the Government Cyber Security Essentials guidelines. Any personal data will be kept separate to the recordings and transcripts, also in an encrypted and password-protected file on the University of Surrey server. All data will be destroyed after 3 years.

The electronic survey platform used provides a high level of data security complying with the common law duty of confidentiality and General Data Protection Regulation. None of the electronic survey instruments will collect identifiable data, except mobile phone number, if the participant provides this. The research team will not have access to name, email, date of birth, address, IP address, location or any other identifiable data. The research team will only use mobile phone number for the purposes set out in this protocol. When building the electronic questionnaire, we will disable location or IP address data collection. The questionnaires will ask some sensitive data on ethnicity, religion and place of birth and whether or not they have had COVID-19 vaccination, but these data cannot be linked to the identity of the person in the data set.

Only tested external companies that have been previously used by the University will be sought for transcription and will be required to sign a confidentiality agreement. Files will be labelled with study identification number.

The study will not generate any paper data and there are, therefore, no risks to confidentiality based on storage of these. Dissemination reports will include no identifiable data about participants. Individual-level data will be destroyed after 3 years.

### Dissemination

We are mindful of the need to disseminate information rapidly and accurately collected in a timely manner to support the behavioural change needed to control the pandemic. The research team will ensure seamless communication and engagement with policymakers, including NHS England and Public Health England and its successors. We will feedback to the participants via the steering groups and national policymakers. We will provide a summary of the findings written in plain English for all participants participating in the study if they request this. We plan to publish and disseminate our findings via peer-reviewed general medical, public health, infectious diseases and healthcare journals and relevant scientific and policy conferences.

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**Contributors** AA had the idea and led the study to delivery. LF, JA, ShS, AM, RM, OD, TV, RA, AH, MA, TP, DW, SuS, AZ and AA were involved in conceptualising, developing the ideas and methods for the study. AA, JA, LF, AM and ShS drafted the protocol and LF led the development of this paper. LF, JA, ShS, AM, RM, OD, TV, RA, AH, MA, TP, DW, SuS, AZ and AA approved the final manuscript.

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**Competing interests** None declared.

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Supplementary File 1

## Workstream 1: Participant Information Sheet

**Full Title:** Developing and delivering targeted SARS-CoV-2 (COVID-19) health interventions to Black, Asian and Minority Ethnic (BAME) communities living in the UK. The COBHAM Study

**Short title:** Targeting health Interventions to BAME communities

**Principal Investigator:** Professor Aftab Ala PhD FRCP

We are a research team based at Royal Surrey NHS Foundation Trust working with your local GP.

We are inviting you to take part in a research study about ways of preventing COVID-19 in people from Black and Asian communities. This is important because people from Black and Asian communities are more likely to become severely ill with COVID-19 than people from the White community.

You should only take part if you want to; choosing not to take part will not disadvantage you in any way. Before you decide whether you want to take part, it is important for you to understand why the research is being done and what we are asking you to do. Please read the following information carefully and talk about it with friends and family, if you wish. Ask me if there is anything that is not clear or if you would like more information ([aftabala@nhs.net](mailto:aftabala@nhs.net))

### Why is the study being done?

The study is being done because people from Black and Asian communities are more likely to become very ill with COVID-19 than people from the White community.

We want to find out how we can help prevent so many people from the Black and Asian communities becoming ill with COVID-19.

### Do I have to take part?

No. Participating in the study is completely up to you. You may decide at any time that you do not want to take part and you do not have to give a reason. Deciding not to take part now, or later, will not affect your health care in any way at all, now or in the future.

We will compensate participants with £25 for taking part in the study.

### What are you asking me to do?

If you decide to take part, you will be given this information sheet to keep and will be asked to sign a consent form. We will then invite you to an online focus group (with 5-7 participants) which will take place in English. During the focus group, you will view the film (3 and a half minute YouTube Video) and key guidance documents and the researcher will ask questions about these interventions which relate to COVID-19 risk, protective behaviours (social distancing, handwashing, mask wearing) testing and vaccination.

If you agree to participate, we will arrange a 30-60 minute online focus group with you via MS Teams when it is convenient. The interview will be audio-recorded and typed up.



## Supplementary File 1

**Who do I contact if I change my mind or have any questions about taking part in the study?**

Professor Aftab Ala - Chief Investigator ([aftabala@nhs.net](mailto:aftabala@nhs.net))

**How we collect and use your personal information**

All information collected about you will be kept strictly confidential and will be stored securely. The information can only be accessed by specific, named, members of the research team. No personal information about you will ever be shared with anyone outside the research team. You will not be identifiable in any reports about the study. All the information you provide will be destroyed after three years.

The Royal Surrey NHS Foundation Trust is the data controller for the information. The legal basis for collecting and processing your personal data is the consent that we ask you to provide.

For more information on how the Royal Surrey NHS Foundation Trust uses your personal information please look at our [privacy notice and information governance site](#).

**Who has reviewed this study?**

The project has been reviewed and funded by the National Institute for Health Research (NIHR) and UK Research and Innovation (UKRI).

As part of Health Research Authority Approval, the NHS Research Ethics Committee (REC) has reviewed this research study.

**Who do I contact if I'd like to complain?**

If you have any further unanswered questions or would like to complain about your involvement in the study, please contact the Royal Surrey Patient Advice & Liaison Service (PALS) (Monday to Friday 0900 -1500) on 01483 402 757 or by email [rsc-tr.PALS@nhs.net](mailto:rsc-tr.PALS@nhs.net)

Alternatively, you can contact our complaints team by emailing your complaint to [rsc-tr.Complaints@nhs.net](mailto:rsc-tr.Complaints@nhs.net) at Royal Surrey NHS Foundation Trust, Egerton Road, Guildford, Surrey, GU2 7XX. <https://www.royalsurrey.nhs.uk/give-feedback/>

**Thank you for reading this information sheet and for considering taking part in this research.**

Supplementary file 2

## Work stream 1: Participant Consent Form

**Full Title:** Developing and delivering targeted SARS-CoV-2 (COVID-19) health interventions to Black, Asian and Minority Ethnic (BAME) communities living in the UK. The COBHAM Study

**Short title:** Targeting health Interventions to BAME communities

**Principal Investigator:** Professor Aftab Ala PhD FRCP

### PARTICIPANT CONSENT FORM

Please initial box

1. I confirm that I have read the Workstream1 information sheet dated 19.04.2021 (version 1.0) for the above study. I have had the opportunity to consider the information, ask questions and have had these answered satisfactorily.
2. I understand that my participation is voluntary and that I am free to withdraw at any time without giving any reason, and without my health care or legal rights being affected in any way.
3. I give permission for the study research team to audio record the focus group and use material collected for text-transcription purposes.
4. I agree to my General Practitioner being informed of my participation in the study
5. I agree for information about me to be stored securely
6. I agree to take part in this study.

---

Name of Participant

---

Date

---

Signature

---

Name of Person  
taking consent

---

Date

---

Signature

Supplementary file 3

### **Work stream 1: Focus Group Topic Guide**

**Full Title:** Developing and delivering targeted SARS-CoV-2 (COVID-19) health interventions to Black, Asian and Minority Ethnic (BAME) communities living in the UK. The COBHAM Study

**Short title:** Targeting health Interventions to BAME communities

**Principal Investigator:** Professor Aftab Ala PhD FRCP

**1) What is your overall impression of the film?**

Probes:

What did you like about it?

Was there anything that could be improved?

Would you be likely to share the film with people you know?

**2) From your perspective what were the key messages of the film?**

Probes:

What are the main points that you would take away from the film?

What are your views about the way the messages were communicated?

**3) Were there any elements that were difficult to understand?**

Probes:

Which were they? And why?

How could they be improved?

**4) Were there any elements that were offensive?**

Probes:

Which were they? And why?

How could they be improved?

**5) On the basis of watching the film have you changed how you intend to act to protect yourself against Covid-19?**

Probes:

What would you do now? And why?

Would you be likely to share the film with people you know?

Why do you think they would benefit from seeing the film?

Supplementary file 4

## Workstream 2: Participant Information Sheet

**Full Title:** Developing and delivering targeted SARS-CoV-2 (COVID-19) health interventions to Black, Asian and Minority Ethnic (BAME) communities living in the UK. The COBHAM Study

**Short title:** Targeting health Interventions to BAME communities

**Principal Investigator:** Professor Aftab Ala PhD FRCP

We are a research team based at Royal Surrey NHS Foundation Trust working with your local GP.

We are inviting you to take part in a research study about ways of preventing COVID-19 in people from Black and Asian communities. This is important because people from Black and Asian communities are more likely to become severely ill with COVID-19 than people from the White community.

You should only take part if you want to; choosing not to take part will not disadvantage you in any way. Before you decide whether you want to take part, it is important for you to understand why the research is being done and what we are asking you to do. Please read the following information carefully and talk about it with friends and family, if you wish. Ask me if there is anything that is not clear or if you would like more information ([aftabala@nhs.net](mailto:aftabala@nhs.net))

### Why is the study being done?

The study is being done because people from Black and Asian communities are more likely to become very ill with COVID-19 than people from the White community.

You have been invited because your GP records show that you belong to the Black or Asian community.

We want to find out how we can help prevent so many people from the Black and Asian communities becoming ill with COVID-19.

### Do I have to take part?

No. Participating in the study is completely up to you. You may decide at any time that you do not want to take part and you do not have to give a reason. Deciding not to take part now, or later, will not affect your health care in any way at all, now or in the future.

### What are you asking me to do?

In two days' time, your GP will send you a text about the study. If you agree to take part, the text will ask you to fill in a short questionnaire, on your phone, tablet or computer.

The questionnaire should take only a few minutes to complete. We will also send you the link to watch the film (3 and a half minute YouTube Video) and read the electronic leaflet.

One week later, we will ask you to fill in a similar short questionnaire, also on your phone, tablet or computer. Your answers will help us to understand whether the information given in the film and leaflet was useful.

In addition, we would like to ask for your permission for your GP to tell us about any COVID-19 related health issues you may experience over the next year.

## Supplementary file 4

In a few weeks' time, with your permission, we would also like to telephone you to arrange an interview about what you thought of the film and leaflet. We will only contact you if you tick the box saying you agree for this to happen.

**Who do I contact if I change my mind or have any questions about taking part in the study?**

Professor Aftab Ala - Chief Investigator ([aftabala@nhs.net](mailto:aftabala@nhs.net))

**How we collect and use your personal information**

All information collected about you will be kept strictly confidential and will be stored securely. The information can only be accessed by specific, named, members of the research team. No personal information about you will ever be shared with anyone outside the research team. You will not be identifiable in any reports about the study. All the information you provide will be destroyed after three years.

The Royal Surrey NHS Foundation Trust is the data controller for the information. The legal basis for collecting and processing your personal data is the consent that we ask you to provide.

For more information on how the Royal Surrey NHS Foundation Trust uses your personal information please look at our [privacy notice and information governance site](#).

**Who has reviewed this study?**

The project has been reviewed and funded by the National Institute for Health Research (NIHR) and UK Research and Innovation (UKRI).

As part of Health Research Authority Approval, the NHS Research Ethics Committee (REC) has reviewed this research study.

**Who do I contact if I'd like to complain?**

If you have any further unanswered questions or would like to complain about your involvement in the study, please contact the Royal Surrey Patient Advice & Liaison Service (PALS) (Monday to Friday 0900 -1500) on 01483 402 757 or by email [rsc-tr.PALS@nhs.net](mailto:rsc-tr.PALS@nhs.net)

Alternatively, you can contact our complaints team by emailing your complaint to [rsc-tr.Complaints@nhs.net](mailto:rsc-tr.Complaints@nhs.net) at Royal Surrey NHS Foundation Trust, Egerton Road, Guildford, Surrey, GU2 7XX. <https://www.royalsurrey.nhs.uk/give-feedback/>

**Thank you for reading this information sheet and for considering taking part in this research.**

Supplementary file 5

## Workstream 2: Online Participant Consent Form

**Full Title:** Developing and delivering targeted SARS-CoV-2 (COVID-19) health interventions to Black, Asian and Minority Ethnic (BAME) communities living in the UK. The COBHAM Study

**Short title:** Targeting health Interventions to BAME communities

**Principal Investigator:** Professor Aftab Ala PhD FRCP

Please tick box

1. I confirm that I have read the Workstream 2 information sheet dated 19.04.2021 (version 1) for the above study. I have had the opportunity to consider the information, ask questions and have had these answered satisfactorily.
2. I understand that my participation is voluntary and that I am free to withdraw at any time without giving any reason, and without my health care or legal rights being affected in any way.
3. I give permission for the study research team to see my answers to the questionnaire
4. I agree to my General Practitioner being informed of my participation in the study
5. I agree for information about me to be stored securely
6. I agree to take part in this study.

*[all the boxes above have to be ticked electronically to progress]*

- |   |                          |                          |
|---|--------------------------|--------------------------|
|   | Yes                      | No                       |
| I agree that the research team may contact me to arrange an interview   | <input type="checkbox"/> | <input type="checkbox"/> |
|   | Yes                      | No                       |
| I agree for my GP to provide the research team with information about any COVID-19 related health issues I may experience over the next year. | <input type="checkbox"/> | <input type="checkbox"/> |

*[If the participant ticks yes to either of these questions, a notification will go to the general practice identifying the participant by NHS number.*

*[when these questions have been answered, there will be an automatic link to pre-intervention questionnaire]*

Supplementary file 6

**Workstream 2: Pre-intervention Questionnaire***(script for Qualtrics electronic questionnaire)*

**Full Title:** Developing and delivering targeted SARS-CoV-2 (COVID-19) health interventions to Black, Asian and Minority Ethnic (BAME) communities living in the UK. The COBHAM Study

**Short title:** Targeting health interventions to BAME communities

**Principal Investigator:** Professor Aftab Ala PhD FRCP

Thank you for agreeing to take part in this study. If you decide you do not wish to answer any particular question, please just leave it out.

1. Have you been offered a COVID-19 vaccination?

Yes		<i>link to question 1a</i>
No		<i>link to question 2</i>
Not sure		<i>link to question 2</i>

- 1a. Have you received a COVID-19 vaccination?

Yes		<i>link to question 3</i>
No		<i>link to question 2</i>
Not sure		<i>link to question 2</i>

2. Do you intend to have a COVID-19 vaccination if you are offered it?

Yes		<i>link to question 3</i>
No		<i>link to question 2a</i>
Not sure		<i>link to question 2b</i>

- 2a. Why do you intend not to have a COVID-19 vaccination?(you may click on as many boxes as you like)

I am not sure that the vaccine is safe for me  
 I am worried that the vaccine will make me ill  
 I do not think the vaccine will work for me  
 I do not agree with vaccines in general  
 I believe I am already immune to COVID-19  
 It is too difficult to get vaccinated  
 Other (please specify)


*[link to question 3]*

- 2b. Why are you not sure about having a COVID-19 vaccination? (you may click on as many boxes as you like)

I am not sure that the vaccine is safe for me  
 I am worried that the vaccine will make me ill  
 I do not think the vaccine will work for me  
 I do not agree with vaccines in general  
 I believe I am already immune to COVID-19  
 It is too difficult to get vaccinated  
 Other (please specify)


*[link to question 3]*

Supplementary file 6

3. How confident are you that the COVID19 vaccination programme will benefit people from Black and Asian communities in the UK?

Very confident	<input type="checkbox"/>
Fairly confident	<input type="checkbox"/>
Neither confident nor not confident	<input type="checkbox"/>
Not very confident	<input type="checkbox"/>
Not confident at all	<input type="checkbox"/>

4. In the last week, which of these have you done?

	Often or always	Some times	Rarely or never
Wearing a face covering in shops or on public transport	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Travelling on public transport	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Washing my hands more than usual	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Welcoming visitors inside my home	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Avoiding physical contact with people outside my home	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Opening windows at home more than usual	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other (please describe).....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

5. Over the last year, how many times have you had a test to find out if you have COVID-19?

I have never had a test	<input type="checkbox"/>	<i>Link to question 5a</i>
Once	<input type="checkbox"/>	<i>Link to question 6</i>
More than once	<input type="checkbox"/>	<i>Link to question 6</i>

5a. Why have you never had a COVID-19 test? (please tick as many as necessary)

Because I have not been in contact with anyone who has had COVID19	<input type="checkbox"/>
Because I have never had symptoms of COVID19	<input type="checkbox"/>
Because I think that COVID19 testing is a bad idea	<input type="checkbox"/>
Other (please describe).....	<input type="checkbox"/>

6. Please tell us how old you are

18-29	<input type="checkbox"/>
30-39	<input type="checkbox"/>
40-49	<input type="checkbox"/>
50-59	<input type="checkbox"/>
60-69	<input type="checkbox"/>
70-79	<input type="checkbox"/>
80+	<input type="checkbox"/>
Prefer not to say or don't know	<input type="checkbox"/>

7. How would you describe your sex?

Male	<input type="checkbox"/>
Female	<input type="checkbox"/>
Prefer not to say	<input type="checkbox"/>



## Supplementary file 6

Other	
-------	--

## 8. What is your ethnic group?

White		<a href="#">Link to 8a</a>
Asian/Asian British		<a href="#">Link to 8b</a>
Black/African/Caribbean/Black British		<a href="#">Link to 8c</a>
Mixed		<a href="#">Link to 8d</a>
Other (please describe)		<a href="#">Link to 9</a>
Prefer not to say		<a href="#">Link to 9</a>

8a.	English/ Welsh/ Scottish/ Northern Irish/ British	
	Irish	
	Gypsy or Irish Traveller	
	Other (please describe)	
8b.	Indian	
	Pakistani	
	Bangladeshi	
	Chinese	
	Other (please describe)	
8c.	African	
	Caribbean	
	Other (please describe)	
8d.	White and Black Caribbean	
	White and Black African	
	White and Asian	
	Other (please describe)	

## 9. Where were you born?

UK	
Elsewhere in Europe	
South Asia	
Africa	
Other (please describe)	
Prefer not to say	

## 10. How would you describe your religion?

Muslim	
Hindu	
Sikh	
Christian	
No religion	
Any other religion (please specify)	
Prefer not to say	

## 11. Please write any other comments here

Supplementary file 6

**Thank you for answering these questions.** If you have further questions about taking part in the study, contact the study lead: [aftabala@nhs.net](mailto:aftabala@nhs.net)

**This is the link to see the film on YouTube.**

**This is the link to see the electronic leaflet.**

**Please show the film or the leaflet (or share the links) to anyone else you know.**

Supplementary file 7

## Workstream 2: Post-intervention Questionnaire

(script for Qualtrics electronic questionnaire)

**Full Title:** Developing and delivering targeted SARS-CoV-2 (COVID-19) health interventions to Black, Asian and Minority Ethnic (BAME) communities living in the UK. The COBHAM Study

**Short title:** Targeting health Interventions to BAME communities

**Principal Investigator:** Professor Aftab Ala PhD FRCP

Thank you for filling in the questionnaire about a week ago and looking at the film and leaflet about COVID-19. If you would like to look at the film and leaflet again, please click *here* (*hyperlink to film and leaflet*).

We are now asking you to fill in another short questionnaire about the film and preventing COVID-19, which should only take a few minutes. If you would like to read information about the study again, please click *here* (*hyperlink to Appendix D PIS*)

If you have further questions about the study, contact the study lead: [aftabala@nhs.net](mailto:aftabala@nhs.net)

1. Did you watch the film about risk of COVID-19?

Yes	<i>Link to question 1a</i>
No	<i>link to question 2</i>
Cannot remember	<i>link to question 2</i>

1a. Overall, what was your experience of the film?

Very good	
Fairly good	
Neither good nor poor	
Fairly poor	
Very poor	

1b. How well do you remember what the film was about?

Very well	
Quite well	
Not much	
Not at all	

1c. How likely are you to recommend the film to friends and family?

Very likely	
Fairly likely	
Neither likely nor unlikely	
Fairly unlikely	
Very unlikely	

1d. Have you shown the film to any friends or family (or sent the link to them)?

Yes	<i>If yes, link to 1e</i>
No	<i>If no link to 1f</i>

1e. To how many people have you shown the film or sent the link?

None	
------	--

## Supplementary file 7

1 or 2	
3 or more	

1f. Please write here any other comments you have about the film.....

2. Have you been offered a COVID-19 vaccination?

Yes	<a href="#">link to question 2a</a>
No	<a href="#">link to question 3</a>
Not sure	<a href="#">link to question 3</a>

2a. Have you received a COVID-19 vaccination?

Yes	<a href="#">link to question 4</a>
No	<a href="#">link to question 3</a>
Not sure	<a href="#">link to question 3</a>

3. Do you intend to have a COVID-19 vaccination if you are offered it?

Yes	<a href="#">link to question 4.</a>
No	<a href="#">link to question 3a</a>
Not sure	<a href="#">link to question 3b</a>

3a. Why do you intend not to have a COVID-19 vaccination? (you may click on as many boxes as you like)

- I am not sure that the vaccine is safe for me
- I am worried that the vaccine will make me ill
- I do not think the vaccine will work for me
- I do not agree with vaccines in general
- I believe I am already immune to COVID-19
- It is too difficult to get vaccinated
- Other (please specify)

[\[link to question 4\]](#)

3b. Why are you not sure about having a COVID-19 vaccination? (you may click on as many boxes as you like)

- I am not sure that the vaccine is safe for me
- I am worried that the vaccine will make me ill
- I do not think the vaccine will work for me
- I do not agree with vaccines in general
- I believe I am already immune to COVID-19
- It is too difficult to get vaccinated
- Other (please specify)

[\[link to question 4\]](#)

4. How confident are you that the COVID19 vaccination programme will benefit people from Black and Asian communities in the UK?

- Very confident
- Fairly confident
- Neither confident nor not confident
- Not very confident
- Not confident at all

## Supplementary file 7

5. In the last week, which of these have you done?

Wearing a face covering in shops or on public transport  
 Travelling on public transport  
 Washing my hands more than usual  
 Welcoming visitors inside my home  
 Avoiding physical contact with people outside my home  
 Other (please describe).....

Often	Some times	Rarely or not at all
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

***Thank you very much for filling in this questionnaire.***

We would also like to contact you again to arrange an interview about what you thought of the film and to discuss finding out more about further COVID-19 related problems you have in the future. Please let us know whether you agree to this or not.

I agree for the research team to text me again to arrange an interview and discuss collecting information on further COVID-19 related problems.

<input type="checkbox"/> Yes	<input type="checkbox"/> No
------------------------------	-----------------------------

Supplementary file 8

### Workstream 3: Participant Consent Form

**Full Title:** Developing and delivering targeted SARS-CoV-2 (COVID-19) health interventions to Black, Asian and Minority Ethnic (BAME) communities living in the UK. The COBHAM Study

**Short title:** Targeting health Interventions to BAME communities

**Principal Investigator:** Professor Aftab Ala PhD FRCP

Please initial box

1. I confirm that I have read the Workstream 3 information sheet dated 19.04.2021 (version 1.0) for the above study. I have had the opportunity to consider the information, ask questions and have had these answered satisfactorily.
2. I understand that my participation is voluntary and that I am free to withdraw at any time without giving any reason, and without my health care or legal rights being affected in any way.
3. I give permission for the study research team to audio record the interview and use material collected for text-transcription purposes.
4. I agree to my General Practitioner being informed of my participation in the study
5. I agree for information about me to be stored securely
6. I agree to take part in this study.

\_\_\_\_\_  
Name of Participant                      Date                      Signature

\_\_\_\_\_  
Name of Person                      Date                      Signature  
taking consent

Supplementary file 9

### **Workstream 3: Participant Information Sheet**

**Full Title:** Developing and delivering targeted SARS-CoV-2 (COVID-19) health interventions to Black, Asian and Minority Ethnic (BAME) communities living in the UK. The COBHAM Study

**Short title:** Targeting health Interventions to BAME communities

**Principal Investigator:** Professor Aftab Ala PhD FRCP

We are a research team based at Royal Surrey NHS Foundation Trust working with your local GP. We are inviting you to take part in a research study about ways of preventing COVID-19 in people from Black and Asian communities. This is important because people from Black and Asian communities are more likely to become severely ill with COVID-19 than people from the White community.

You should only take part if you want to; choosing not to take part will not disadvantage you in any way. Before you decide whether you want to take part, it is important for you to understand why the research is being done and what we are asking you to do. Please read the following information carefully and talk about it with friends and family, if you wish. Ask me if there is anything that is not clear or if you would like more information ([aftabala@nhs.net](mailto:aftabala@nhs.net))

#### **Why is the study being done?**

The study is being done because people from Black and Asian communities are more likely to become very ill with COVID-19 than people from the White community.

You have been invited because you agreed to provide your details prior when filling out a related study Questionnaire to take part in this interview.

We want to find out how we can help prevent so many people from the Black and Asian communities becoming ill with COVID-19.

#### **Do I have to take part?**

No. Participating in the study is completely up to you. You may decide at any time that you do not want to take part and you do not have to give a reason. Deciding not to take part now, or later, will not affect your health care in any way at all, now or in the future.

We will compensate participants with £25 for taking part in the study.

#### **What are you asking me to do?**

If you decide to take part, you will be given this information sheet to keep and will be asked to sign a consent form. We will then invite you to an interview (15-30 minutes) which will take place in English. During the interview, the researcher will ask questions about these interventions which relate to COVID-19 risk, protective behaviours (social distancing, handwashing, mask wearing) testing and vaccination.

If you agree to participate, we will arrange a 15-30 minute interview virtually with you via MS Teams when it is convenient. The interview will be audio-recorded and typed up.

#### **Who do I contact if I change my mind or have any questions about taking part in the study?**

Professor Aftab Ala - Chief Investigator ([aftabala@nhs.net](mailto:aftabala@nhs.net))

Supplementary file 9

### **How we collect and use your personal information**

All information collected about you will be kept strictly confidential and will be stored securely. The information can only be accessed by specific, named, members of the research team. No personal information about you will ever be shared with anyone outside the research team. You will not be identifiable in any reports about the study. All the information you provide will be destroyed after three years.

The Royal Surrey NHS Foundation Trust is the data controller for the information. The legal basis for collecting and processing your personal data is the consent that we ask you to provide.

For more information on how the Royal Surrey NHS Foundation Trust uses your personal information please look at our [privacy notice and information governance site](#).

### **Who has reviewed this study?**

The project has been reviewed and funded by the National Institute for Health Research (NIHR) and UK Research and Innovation (UKRI).

As part of Health Research Authority Approval, the NHS Research Ethics Committee (REC) has reviewed this research study.

### **Who do I contact if I'd like to complain?**

If you have any further unanswered questions or would like to complain about your involvement in the study, please contact the Royal Surrey Patient Advice & Liaison Service (PALS) (Monday to Friday 0900 -1500) on 01483 402 757 or by email [rsc-tr.PALS@nhs.net](mailto:rsc-tr.PALS@nhs.net)

Alternatively, you can contact our complaints team by emailing your complaint to [rsc-tr.Complaints@nhs.net](mailto:rsc-tr.Complaints@nhs.net) at Royal Surrey NHS Foundation Trust, Egerton Road, Guildford, Surrey, GU2 7XX. <https://www.royalsurrey.nhs.uk/give-feedback/>

**Thank you for reading this information sheet and for considering taking part in this research.**



Supplementary file 10

### **Workstream 3: Interview Topic Guide – People from Black and South Asian Communities**

**Full Title:** Developing and delivering targeted SARS-CoV-2 (COVID-19) health interventions to Black, Asian and Minority Ethnic (BAME) communities living in the UK. The COBHAM Study

**Short title:** Targeting health Interventions to BAME communities

**Principal Investigator:** Professor Aftab Ala PhD FRCP

#### Interventions

1. Who provided you with a link to the film?
2. What did they say about it?
3. What made you decide to watch the film?
4. Did you watch it alone or with other people?
5. What was your overall impression of the film?
6. What was the key message(s) you took away from the film?
7. On the questionnaire you completed you said that as a result of watching the film you
  - a. Had not changed you mind about being vaccinated against Covid-19
    - i. Is this still the case or have you since been vaccinated?
    - ii. If you have been vaccinated what made you change your mind?
    - iii. If you haven't been vaccinated what are your reasons for this decision?
  - b. Had changed you mind about being vaccinated against Covid-19
    - i. Did you go onto be vaccinated?
    - ii. If you have been vaccinated, what was it about the film made you change your mind?
    - iii. If you haven't been vaccinated what are your reasons for changing your mind about this?
8. What could we do to improve the process of providing people with a link to the film so that they would be encouraged to view it?

#### Evaluation process

9. Who provided you with a link to the survey?
10. What did they say about it?
11. What made you decide to complete the survey?
12. What could we do to improve the process of providing people with a link to the survey so that they would be encouraged to complete it?

Supplementary file 11

### **Workstream 3: Health Professional Interviews Topic Guide**

**Full Title:** Developing and delivering targeted SARS-CoV-2 (COVID-19) health interventions to Black, Asian and Minority Ethnic (BAME) communities living in the UK. The COBHAM Study

**Short title:** Targeting health Interventions to BAME communities

**Principal Investigator:** Professor Aftab Ala PhD FRCP

1. Disseminating the film/key guidance documents
2. Were there any practical difficulties with identifying patients to offer the link to?
3. How did you provide people with a link to the film?
4. What did they say to encourage them to view it?
5. What kind of feedback did you get, if any, about the film?
  - a. Positive?
  - b. Negative?
6. Recruiting participants to complete the evaluation
7. Were there any practical difficulties with identifying patients to offer the survey link to?
8. How did you provide people with a link to the survey?
9. What did they say to encourage them to complete the survey?
10. What kind of feedback did you get, if any, about the process of being asked to complete the survey?
  - a. Positive?
  - b. Negative?
11. What kind of feedback did you get, if any, about the survey?
  - a. Positive?
  - b. Negative?
12. Did you have to miss out recruiting potential participants for any reason?
  - a. If so, what were the reasons?