

# Using edutainment to encourage Covid helpline calls in the presence of stigma

## Final Project Report

**Partner Team:** Purabi Matin, Mehdi Hassan, Esthiak Khan, Ariful Islam

**BIT Project Team:** Dan Brown, Dilhan Perera, Ben Szreter, Laura Litvine

**Date:** August 2021



**Cabinet  
Division**  
Government of the People's  
Republic of Bangladesh



# Contents

---

<b>Executive Summary .....</b>	<b>3</b>
<b>01 / Introduction .....</b>	<b>6</b>
<b>02 / Background .....</b>	<b>6</b>
<b>03 / Intervention.....</b>	<b>7</b>
<b>04 / Trial design and implementation .....</b>	<b>9</b>
<b>05 / Main findings .....</b>	<b>11</b>
<b>06 / Recommendations .....</b>	<b>14</b>
<b>07 / a2i Project Team .....</b>	<b>14</b>
<b>Annex A / Further information on recall .....</b>	<b>16</b>
<b>Annex B / Running the trial on Muktopaath .....</b>	<b>17</b>
<b>Notes .....</b>	<b>19</b>

## Executive Summary

Continuing a collaboration started in March 2017, the Behavioural Insights Team (BIT) and the Access to Information (a2i) team of the Bangladeshi government came together in mid-2020 to explore how behavioural insights could be applied and tested as part of the government's Covid-19 pandemic response. This report summarises our findings.

### Policy objective

As of late July 2021, there have likely been more than 10 million deaths from Covid globally.<sup>1,2</sup> Part of this devastating impact reflects a lack of awareness of what actions people need to take if symptoms become apparent. Social stigma can also stop people taking these actions even if they are known.

In Bangladesh, the government set up medical helplines to allow anyone with a phone to discreetly contact a doctor and access medical services. We worked with a2i to identify ways to increase awareness of the actions people should take if symptoms become apparent – including calling a doctor via medical helplines.

We identified frontline workers as crucial messengers in spreading these messages in their communities. We used Muktopaath, a2i's national e-learning platform with over 1 million registered users, to reach this target population of frontline workers. We tested several interventions to encourage them to share information on what actions to take in the presence of symptoms, particularly contacting a doctor via the medical helplines.

### Intervention

We designed and tested a **short edutainment-style video** to encourage people to **contact a doctor by calling a medical helpline** if symptoms become apparent, and take other precautionary measures such as self-isolation. We additionally tested **motivational messages** aimed at increasing attention paid to the video.

The **video** was informed by lessons from behavioural science and exploratory research that we conducted in Bangladesh. The final product, shot in a rural location, was short enough to retain attention but long enough to develop a credible story.

We used the **motivational messages** to test strategies to encourage engagement with Covid communications that had shown promise in other contexts. These ranged from a **pro-social** strategy ('help protect others in your community'), to **thanking** individuals ('thank you for helping your community fight coronavirus'), to evoking **nostalgia** ('let's get back to living our normal lives again'). The motivational messages also attempted to personalise the experience by asking users to bring to mind a relevant person or memory.

Figure 1: A screenshot of the video



### Trial Design

We assessed the effects of the video and the messages by running a **two-in-one randomised controlled trial** on the Muktopaath platform:

- We assessed **the effects of the video** by randomly assigning half the participants to answer key survey questions before watching the video rather than after watching the video. The survey questions captured participants' knowledge, attitudes, and beliefs around encouraging people in

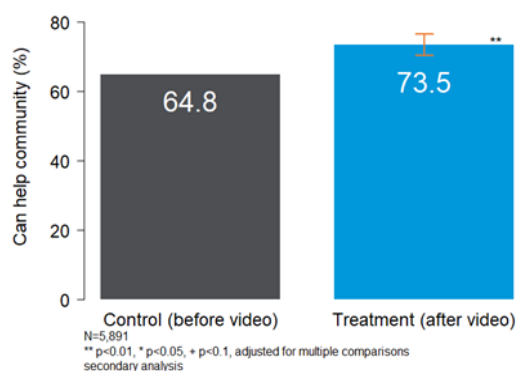
their community to use the medical helplines.

- We assessed **the effects of the messages** by randomly assigning which message each participant was shown before they reached the video, before comparing participants' recall of four key details from the video in a post-video survey.

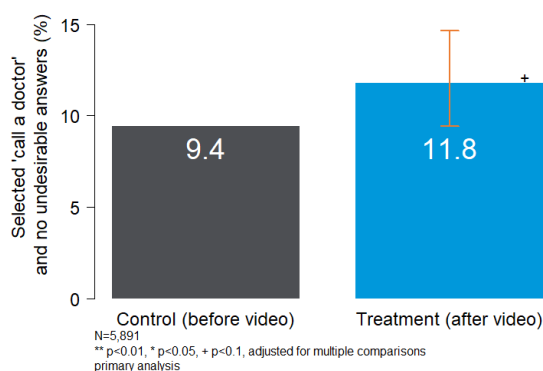
## Results

Close to 6,000 Muktopaath users participated in the trial and submitted survey responses. The data we collected suggest that the video successfully **increased participants' self-belief that they can help their community** deal with Covid *and* **increased their knowledge of how to do so**.

**Figure 2:** Effect of video on self-belief to help community



**Figure 3:** Effect of video on knowledge of what to advise someone reporting coronavirus symptoms



The positive impact of the video was even larger on people identifying some specific actions, with exploratory analysis suggesting that those who had just watched the video were 10 percentage points more likely to say they would advise

someone with Covid symptoms to call a doctor (the specific action enabled by the helplines), and 25 percentage points more likely to suggest isolating at home. These effects are particularly important in light of relatively low levels of knowledge about appropriate actions in the control group: only a quarter said they would suggest calling a doctor and only half said they would advise self-isolating. The video may also have directly reduced stigma, despite the fact it depicted individuals suffering from the disease.

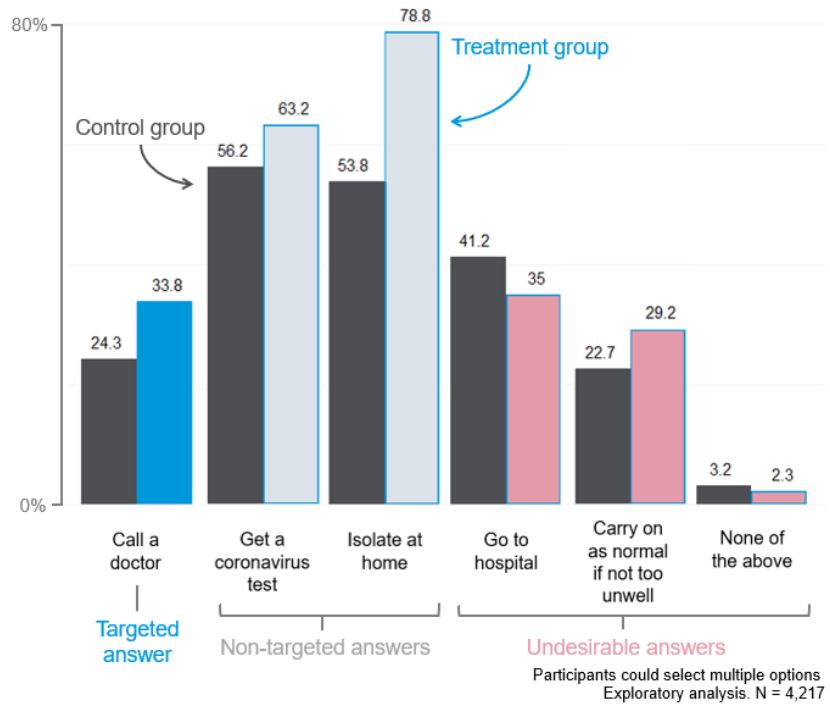
In contrast, we did not find any evidence that the motivational messages increased attention paid to the video, relative to a short control message, though this part of the trial was hampered by implementation challenges and a smaller than planned sample size.

## Recommendations

This project demonstrated the potential of online platforms such as Muktopaath to apply and test behavioural insights in response to emerging policy challenges. Based on the results, we suggest:

- **Distributing the video more widely during increased times of covid transmission:** The positive impacts described above compare favourably to the minimal additional costs of distributing the video on other online channels. Before distributing more widely, however, a2i should check that the tone and contents of the video remains appropriate given the state of the pandemic and the helplines in Bangladesh.
- **Considering producing similar videos to address other aspects of the Covid response:** Given the demonstrated potential for videos to affect knowledge and beliefs, they could also be used to address other challenges such as increasing understanding of how to get vaccinated.
- **Conducting additional research to understand what makes a video effective and how to encourage viewership:** While we suspect particular elements of the video we tested set it up for success, further research could help clarify the importance of these.

**Figure 4:** Participants' responses when asked for the most important advice they would provide someone with Covid symptoms (exploratory analysis to help explain estimated effect of video on participants' knowledge)<sup>3</sup>



## 01 / Introduction

The Behavioural Insights Team (BIT) and Access to Information (a2i)<sup>4</sup> formed a partnership in March 2017, supported by the Global Innovation Fund (GIF), to apply behavioural insights to a2i's priority programs across Bangladesh.

Starting in June 2020 BIT and a2i collaborated to increase awareness of what actions to take in the presence of Covid symptoms and address the consequences of Covid-related social stigma in Bangladesh. Stigma was thought to prevent people from seeking healthcare even if they knew how to do so.

This project was structured in three phases, whereby we: i) conducted preliminary research on Covid-related social stigma, including a review of the existing academic evidence and interviews with healthcare workers in Bangladesh; ii) used insights from behavioural science to design and produce a video intervention to encourage people to contact a doctor via one of two medical helplines in Bangladesh (333 and 16263) as well as take other precautionary measures such as self-isolation in the presence of symptoms, and developed short motivational messages to increase attention paid to the video; iii) tested the impact of our interventions on knowledge, attitudes and beliefs related to care-seeking behaviours using [MuktoPaath](#), a2i's e-learning platform.

## 02 / Background

### Covid stigma in Bangladesh

A lack of awareness of available care-seeking resources, and/or what precautionary measures to take in the presence of symptoms (such as self-isolation) can lead people to take actions which worsen the spread and consequences of Covid. Even if people understand what actions they should take when symptoms arise,

coronavirus-related social stigma may prevent them from doing so.

Previous research on epidemics such as Ebola and HIV suggests that stigma often prevents people from seeking medical care.<sup>5</sup> Survey-based research on Covid in Bangladesh from early on in the pandemic has also found that a sizable proportion of the population believed they would be prevented from seeking medical care in their community.<sup>6</sup> This is a crucial issue: a failure to seek medical care can worsen outcomes for people with the virus if they are seriously ill and do not get medical support in time, and leads to further transmission of the virus if people continue to go about their lives while trying to hide symptoms.

To further explore the issue of Covid-stigma in Bangladesh we supported a2i to conduct interviews with 13 doctors from the 333 national medical helpline. These doctors had responded to approximately 45,000 calls between them over a ~4 month period. Of these doctors, five stated that fear of being stigmatised is a barrier to medical care seeking.<sup>7</sup>

**To address this lack of healthcare seeking, we developed a video intervention to highlight the existence of two national helplines which allow people with Covid symptoms to seek medical advice, without risking being stigmatised.<sup>8</sup>**

At the time of launch of the trial (January 2021), we heard anecdotally that fear of Covid has subsided over time among the population which may have in turn reduced social stigma. However, we continued with the video launch because the key advice to encourage people with symptoms to self-isolate and call a doctor via a helpline remained important to reduce Covid transmission.

### The Covid 'infodemic' and motivation of frontline workers

During the early stages of the Covid pandemic there was an overload of information for people, including frontline workers, on how to behave and what to do to limit the spread of Covid.<sup>9</sup> This

“infodemic” might reduce the ability or motivation of frontline workers to learn useful new information (like our video intervention) from the many different pieces of advice they receive.<sup>10</sup>

To address this potential issue we additionally designed and tested a series of messages intending to motivate frontline workers to pay attention to the video.

## 03 / Intervention

We designed and tested two interventions in this project:

1. A **short video** aiming to encourage frontline workers and volunteers in Bangladesh to spread awareness of what actions to take in the presence of symptoms amongst people in their communities. The video particularly focuses on encouraging people to contact a doctor via Covid telephone helplines (333 and 16263), which provide a discreet channel to seek medical assistance.
2. **Short motivational messages** (shown just before the video) which aim to increase the attention that frontline workers pay to the video.

### Intervention 1: Video Intervention to encourage help-seeking through helplines

Working with a2i and Zanala, a video production company in Bangladesh, we designed a video intervention which encouraged frontline workers and volunteers to spread awareness of what actions to take in the presence of Covid

symptoms, including contacting a doctor via medical helplines (333 and 16263) and self-isolating. [The video can be seen here.](#)

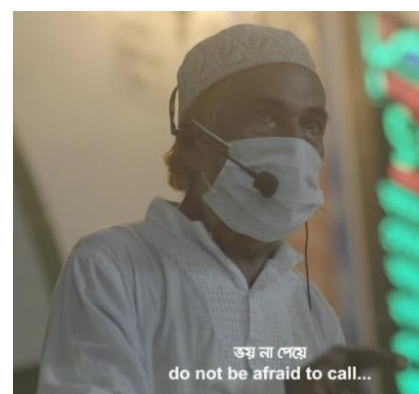
The video's total final length was 6m30s: short enough for people with limited time to watch it, but long enough to develop a credible and compelling story. The video included a series of short scenes taking place in a rural setting, and shows people potentially affected by Covid and their families interacting with healthcare workers and volunteers. In particular the video:

- Includes a clear call to action instructing viewers to encourage people in their community to contact a doctor by calling the national helpline number and self-isolate if they have Covid symptoms;
- Uses a respected figure to deliver that message, in this case an Imam;
- Shows how easy it is to call and receive help from the helplines, making the helpline number salient;<sup>11</sup>
- Highlights how to safely interact with symptomatic individuals e.g. use of masks and maintaining distance.

### Intervention 2: Motivational messages for frontline workers

We also developed short motivational messages which aimed to increase the attention that frontline workers and volunteers pay to the video. We developed three motivational messages alongside a control message, all of which were shown shortly before participants watched the video.<sup>12</sup> The full content of the motivational messages is summarised in the table on the next page.<sup>13</sup>

**Figure 4:** Two screenshots from the video intervention - the full video can be seen [here](#).



**Table 1:** Summary of motivational message

Condition	Description	Why we include this message
Control	"We [MuktoPaath] would like to show you a short video about the coronavirus, after which you will be asked a few questions."	This is a neutral message.
Message 1 - Thanking people (reciprocity)	Control message followed by: "We want to say thank you for helping your community to fight Coronavirus. Before watching the video, please take a moment to think about the people you would like to thank for their actions against coronavirus"	This message aims to embed a sense of reciprocity (a social norm obliging repayment of favours and gifts) which has been shown to have a powerful impact on people's behaviour. <sup>14</sup>
Message 2 - Pro-social	Control message followed by: "Help protect others in your community from the coronavirus. Before watching the video, please take a moment to think about the people in your community that you want to protect."	This message aims to motivate people by framing their behaviour in terms of its impact on others in their community. Previous work has found some effects of pro-social messages on healthcare behaviours, e.g., one study found that healthcare professionals were more likely to wash their hands when seeing a prosocial message (i.e. to protect patients) than a message about protecting themselves. <sup>15</sup>
Message 3 - Nostalgia	Control message followed by: "Let's fight coronavirus to get back to living our normal lives again. Before watching the video, please take a moment to think about something you would love to do once the pandemic is over."	This message aims to invoke feelings of nostalgia for a return to a "normal life". There is some evidence that nostalgia can influence behaviour, <sup>16</sup> but this is not well established. Nostalgia messages had been used in Covid-related TV campaigns in other contexts and we believe this trial provided a useful opportunity to test its impact.



# 04 / Trial design and implementation

To assess the effects of both the video and the pre-video messages, we designed a randomised controlled trial (RCT) that contained **two experiments in one**:

- We assessed **the effects of the video** by randomly assigning half the participants to answer key survey questions before watching the video rather than after watching the video;
- We assessed **the effects of the messages** by randomly assigning which message each participant was shown before they reached the video, and then

measuring key outcomes in a post-video survey.<sup>17</sup>

## Trial implementation

Working closely with a2i’s Education Innovation team, we implemented the trial on Muktopaath, a2i’s e-learning platform. Muktopaath has hosted over 200 online courses and has over one million registered users.

As users completed a course or logged into their account, they were shown a pop-up with a request to view an “important announcement about coronavirus”. Once users clicked “proceed”, they were randomly assigned into one of the experimental conditions and entered into the trial, as shown in Figure 5. A screenshot of the motivational message is shown in Figure 6, while a screenshot of the video can be found in the Annex.

Figure 5: How the trial was experienced by participants, and data collection

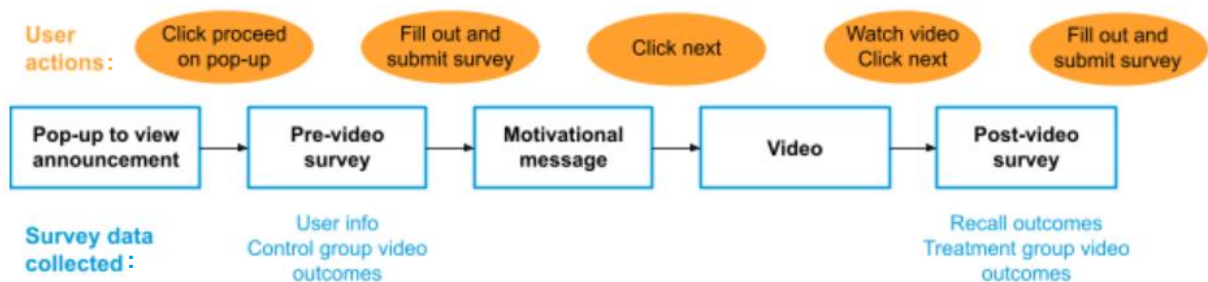
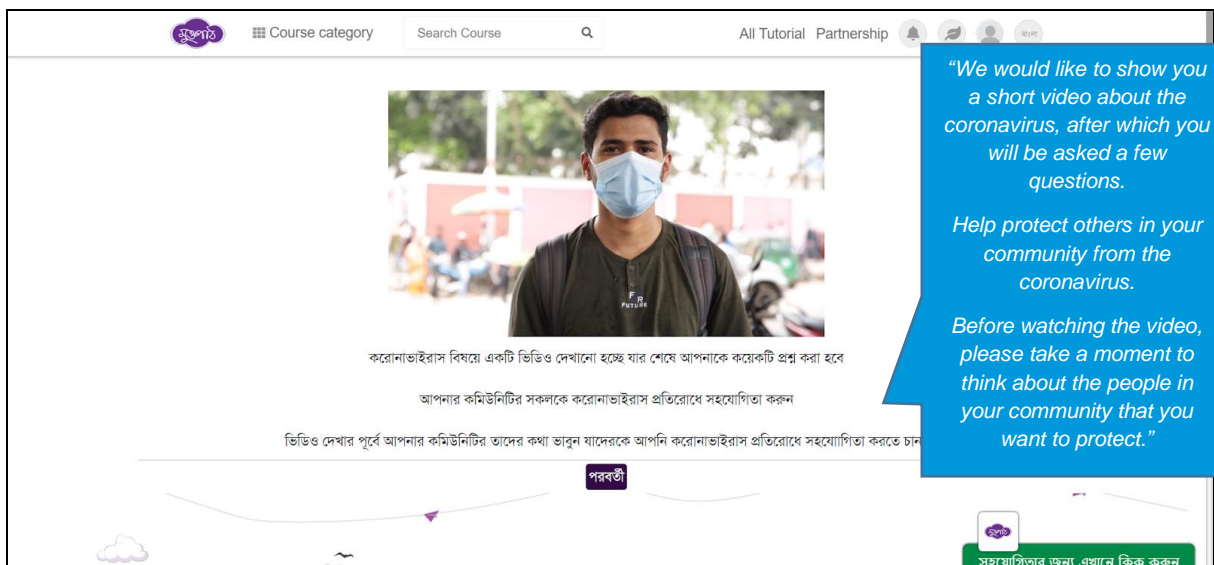


Figure 6: Screenshot of the prosocial message on the Muktopaath platform plus translation



## Sample

We launched the trial on 14 January 2021 and closed it on 24 March 2021. During this period, 10,055 unique users entered the trial. Of these, 5,891 provided consent and submitted the pre-video survey with demographic information, and so were included in the data analysis.

The sample is predominantly male (85% are men), young (two thirds are aged between 16 and 37), and highly educated (49% have a university degree). Almost half live in rural areas. It consists largely of front-line workers (two-thirds of the total sample), and half of all respondents are teachers. A reasonably large proportion (one third) of the sample reported that someone had mentioned having Covid symptoms to them in the past week.

## Outcome measures

Although we are ultimately interested in whether the interventions increase the frequency of participants encouraging others to call the helpline, this behaviour is difficult to observe. We therefore used online surveys to measure intermediate outcomes: knowledge, attitudes and intentions. While we expect that a change in these outcomes would lead to a change in behaviour, this is not guaranteed.

**To measure the effects of the video**, we used two primary outcomes and two secondary outcomes:

- **Knowledge of what to advise people with symptoms** (primary outcome): Participants were asked *what they would suggest to someone who mentions that a person in their household is experiencing Covid symptoms*. While participants were allowed to select multiple options, their response was considered correct *if they*

*selected 'call a doctor'* (the behaviour enabled by the helpline) *and did not select any unhelpful suggestions* such as 'carry on as normal if you are not feeling too unwell' and 'go to a hospital'.

- **Perceived importance of spreading awareness** (primary outcome): Participants were asked to rate *how important the act of encouraging people with symptoms to call a doctor is relative to the activity they spend most time on in their occupation*. We measured the proportion saying this was 'a little more' or 'much more' important.
- **Self-belief in helping your community** (secondary outcome): Participants were asked if they *felt they could help their community deal with Covid*. Given desirability bias in answering 'yes' to such questions, we measured the proportion giving the strongest response - that they could 'definitely' help.
- **Lack of stigmatising attitudes** (secondary outcome): To check if the video unintentionally increased stigma, participants were asked if they *thought people in their community should avoid individuals who have recovered from Covid*. We measured the proportion saying that people should *not* avoid these individuals as an indicator of their own beliefs.

**To measure the effects of the messages** in increasing attention to the video, our primary outcome measure was a **recall score** (0-4) which captures to what extent respondents could recall key content from the video, such as the numbers used to call the helpline and some other details about the storyline which could not be known without watching the video.<sup>18</sup>

## 05 / Main findings

**The video increased participants' self-belief that they could help their community to deal with Covid, and their knowledge of how to do so.** If these outcomes translate into a change in behaviour, the video will have led more frontline workers to encourage people in their community to stay at home and call the helplines when appropriate. As a positive side-effect, the video may also directly reduce stigma towards those who have recovered from Covid. These results are described in more detail below.

It should be noted that a substantial proportion (56%) of the users who completed the pre-video survey did not complete the post-video survey. This high rate of drop-out, though not unexpected, **complicates the interpretation of the results for the effect of the video since the individuals who drop out may have answered differently to those who do not.** Encouragingly, the distribution of demographic characteristics across participants who completed the post-video survey and those who did not was remarkably similar, suggesting that those dropping out were not systematically different (and therefore that the videos caused the observed differences in self-belief and knowledge). Nevertheless, we use several techniques to predict the values of the missing responses and test the sensitivity of our results to the assumptions we make about how comparable the groups are.<sup>19</sup>

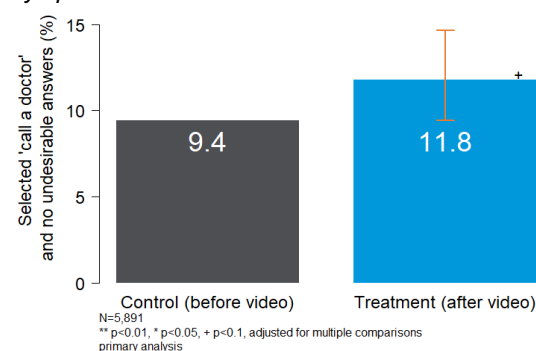
**Finally, we did not find any evidence that the motivational messages increased attention paid to the video.** We observed lower recall scores in both the 'nostalgia' and 'prosocial' conditions than in the simple message condition, though the differences were not statistically significant. This part of the trial was hampered by a smaller-than-expected sample size, an oversight in survey translation, and challenges in implementing one of the behavioural outcome measures, so we do not describe the results in detail. However, we believe that these results provide tentative evidence that typical motivational messages, even when informed by theory and evidence from other contexts, are not

always more effective in influencing behaviour relative to short, simple messages.

### Estimated effects of the video in more detail

**The video increased participants' knowledge of what to advise people with Covid symptoms.** Participants who had been exposed to the video were 2.4 percentage points more likely to identify the correct set of recommendations to provide to a person with Covid symptoms compared to those who had not (a 25% difference; Figure 7). While we cannot be certain that all of this difference was due to the video, given the attrition from the treatment group, it provides promising evidence of a positive impact.<sup>20</sup>

**Figure 7:** Effect of video on knowledge and intentions to provide the targeted advice to people with Covid symptoms



We were surprised to see such a low level of the desired outcome in the control group. This partly reflects the fact that only a quarter of participants said that they would advise someone with Covid to 'call a doctor' (Figure 8). In addition, at least half of these participants also said that they would advise others to 'go to hospital' or 'carry on as normal if not feeling too unwell' (both "incorrect" answers). This low level of awareness about advisable activities is worrisome, and supports the importance of furthering training and information efforts, potentially through interventions like our video.

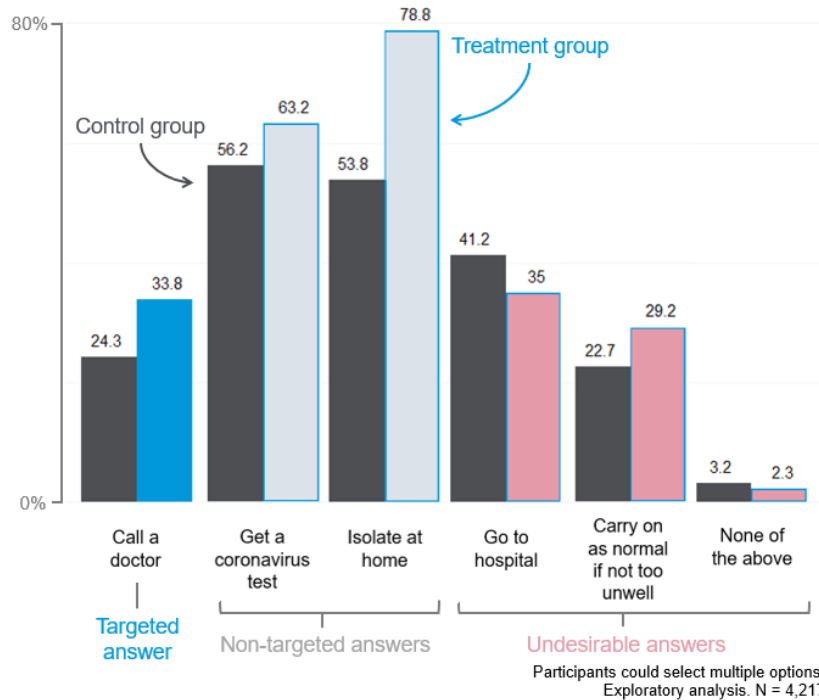
When we look at the detailed responses that were used to construct the outcome measure above, we see that **participants in the treatment group were 10 percentage points more likely to select 'call a doctor'** than those

who answered before being shown the video (Figure 8).<sup>21</sup>

Figure 8 also shows that **participants in the treatment group were 25 percentage points more likely to advise others to ‘isolate at**

**home’**. While this was not the message we were targeting in the experiment, the video contained several references to this being the correct behaviour.<sup>22</sup> Such an impact seems particularly helpful in a context where concerns about Covid had been subsiding.

**Figure 8:** Participants’ responses when asked for the most important advice they would provide someone with Covid symptoms (exploratory analysis)

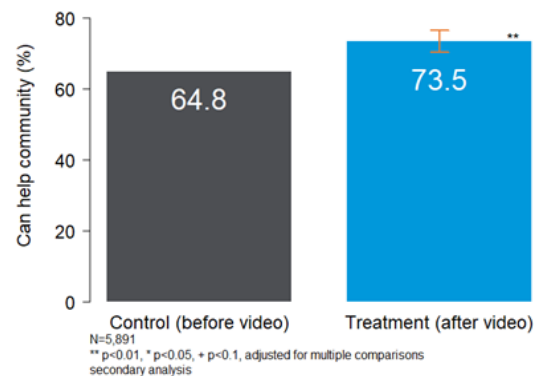


**The video substantially increased participants’ self-belief in helping their community fight Covid.** We found that after watching the video participants **were 8.7 percentage points more likely to say that they could ‘definitely’ help their community deal with Covid** (a 13% difference; Figure 9). This estimate is robust to changes in our assumptions about the data.<sup>23</sup>

**We did not find any evidence that the video changed how important participants think it is to encourage others to call a doctor.**

However, spreading awareness about this target behaviour was **perceived to be important in both the control and treatment group**: in both groups just over 8 out of 10 participants said that encouraging people with Covid symptoms to call a doctor was ‘more important’ or ‘much more important’ than their main day-to-day activity.

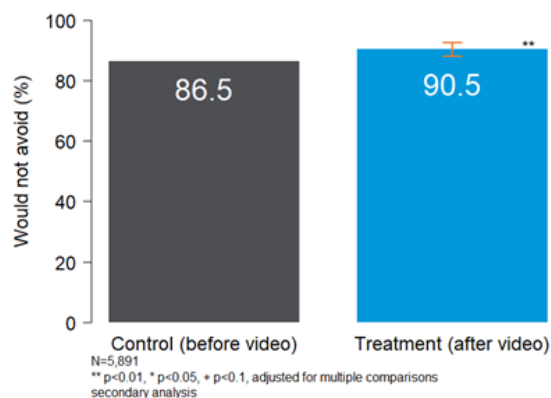
**Figure 9:** Effect of video on self-belief in helping their community fight Covid



**We also found some evidence that the video reduced stigmatising attitudes.** We had been concerned that showing a video of someone suffering from Covid risked unintentionally increasing stigma. However, after watching the video, participants were 4 percentage points

less likely to report stigmatising attitudes by saying that people in their community should avoid individuals who have recovered from Covid (Figure 10). Again we cannot be certain that all of this difference was due to the video, but the result provides tentative evidence of a helpful rather than harmful impact.<sup>24</sup>

**Figure 10:** Effect of video on the absence of reported stigma towards people who have recovered from Covid



Reassuringly, reported stigma was lower than expected, with 86.5% of participants in the control group saying that individuals who have recovered from Covid should *not* be avoided. However, it is possible that participants understate stigmatising attitudes due to social desirability bias. Taking this result at face value, it may reflect a lower level of fear about Covid at the time that the trial launched compared to the start of the pandemic. However, perceptions may have changed again in the 'third wave' of the pandemic.

## 06 / Recommendations

The results of this trial suggest that the Covid-19 edutainment video developed in collaboration with a2i and Zanala left viewers both with greater self-belief that they can help their communities to deal with Covid and better equipped with the knowledge to do so. If these outcomes translated into a change in behaviour, the video would have resulted in more people accessing medical help in a discreet and safe way.

At the same time, we found that only a small proportion of people correctly identified the most useful advice to provide to those with Covid symptoms. This ongoing challenge, along with the promising results from the video, leads to three recommendations for further work.

**Recommendation 1: Distribute the video more widely if the content remains appropriate given the third wave of the pandemic.** Since videos can be distributed at close to zero additional cost (e.g. on social media), we suggest a2i identify additional channels through which this could be done. Before distributing more widely, however, a2i should check that the tone of the video remains appropriate given changing sentiment regarding Covid-19 in Bangladesh.

**Recommendation 2: Consider producing similar videos to address other elements of the Covid response.** This trial demonstrates that short edutainment videos may be an effective tool for spreading awareness, and potentially changing behaviour. Other aspects of the pandemic response might be well served through the application of this tool too, such as helping people understand the process for getting vaccinated.

**Recommendation 3: Conduct additional research to better understand what makes an edutainment video effective and how to encourage viewership.** Several features of the video may have contributed to its success: it built a credible narrative in a short amount of time, it featured trusted messengers and

relatable characters, and key messages were introduced early and repeated throughout the video. Additional research on the extent to which these elements matter could help inform the production of future videos. Future research could also test different ways of increasing attention paid to the video, since even the most effective video will fail to produce results if no one is convinced to watch it.

## 07 / a2i Project Team

This project was made possible by the hard work of several teams at a2i who worked closely with BIT throughout, from the initial research activities to develop the storyline of the video to the implementation of the online trial. More specifically:

- The Human Development Media team, led by Purabi Matin, conducted the exploratory interviews with healthcare professionals from the 333 helpline; developed the storyline for the video, ensuring it was adapted to the local context; coordinated with the video production team at Zanala; and translated the trial materials including the motivational messages.
- The Future of Learning team, which oversees the Muktopaath platform, collaborated with the BIT team to implement the online RCT that allowed us to test the effects of the video and motivational messages.

**Mehdi Hassan**, e-Learning National Consultant in the Future of Learning team, coordinates the design, development and implementation of Muktopaath and looks after e-Learning as part of the broader educational innovation programme. He helped BIT understand the capacity of Muktopaath to conduct this type of evaluation, and acted as the vital link between BIT staff and Muktopaath's developers. We present some reflections from Mehdi below.



**Mehdi Hassan,**  
**National Consultant: e-Learning,**  
**Future of Education Team, a2i**

*“Understanding learners’ behaviour is very important for the online management [of e-Learning courses] because in-person behaviour is very different to online behaviour - I have learnt that we need to track these user behaviours better while also maintaining concern for user privacy”*

The collaboration reinforced to Mehdi the value of finding innovative ways to track users’ behaviour within the platform (e.g., clicks on links), which can complement the self-reported survey responses that are usually collected. The implementation of this trial also forced the project partners to think carefully about the

user’s step-by-step journey through the platform (e.g., how the way that information is presented, in which order, on what screens, might affect the user’s experience).

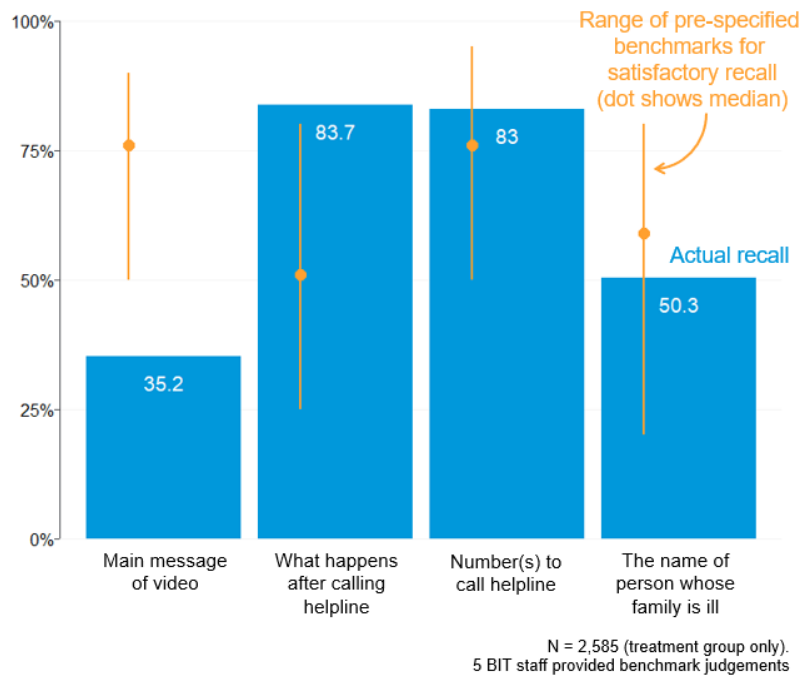
This project also showed that a remote collaboration between the a2i team in Dhaka and the BIT team in London can still be very successful. Mehdi felt that regular meetings, knowledge sharing and a commitment to a shared objective allowed us to overcome the additional challenges that remote work brings. The endorsement of collaborations with international partners by senior management at a2i was essential for this project, and on all sides we are excited by the potential for future work together, whether remote or in person.

As next steps, a2i are planning to share the video we developed more widely. In addition, a2i are currently planning the next version of Muktopaath, and are keen to continue applying behavioural insights to understand and measure user behaviour. Initial discussions with BIT have pointed to several promising options for continuing the partnership, inspired by the work on this trial as well as the earlier collaboration on [nudging online learners to complete courses](#).

## Annex A / Further information on recall

Recall of details from the video was reasonably high for the treatment group, suggesting that participants actually paid attention to it.<sup>25</sup> For example, we found that 83% of those who filled in the survey after watching the video correctly recalled and typed in one of the helpline numbers.<sup>26</sup>

Figure 11: Actual and benchmark levels of recall of video details

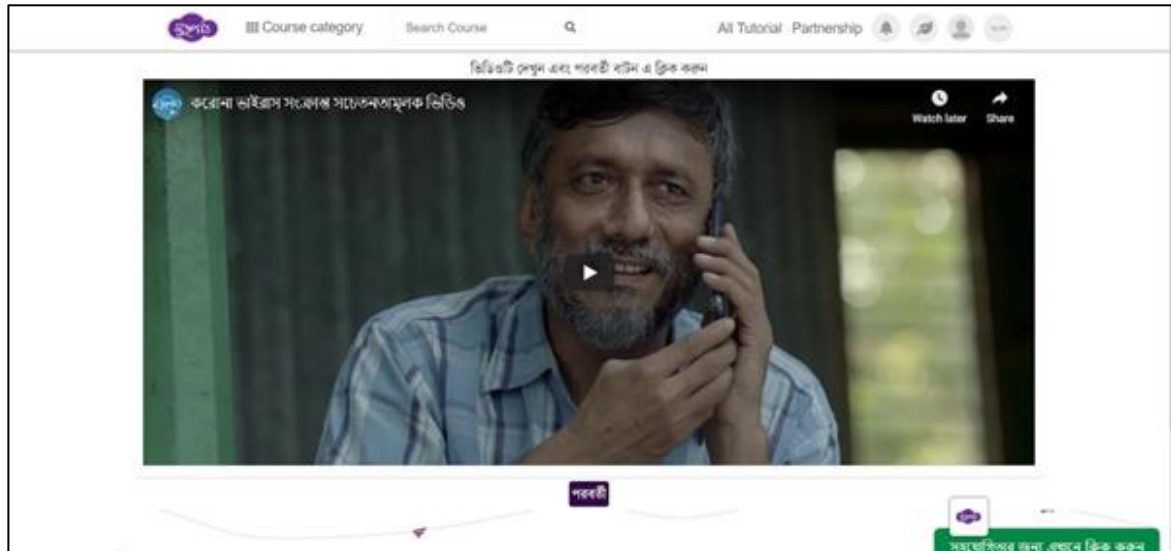




## Annex B / Running the trial on Muktopaath

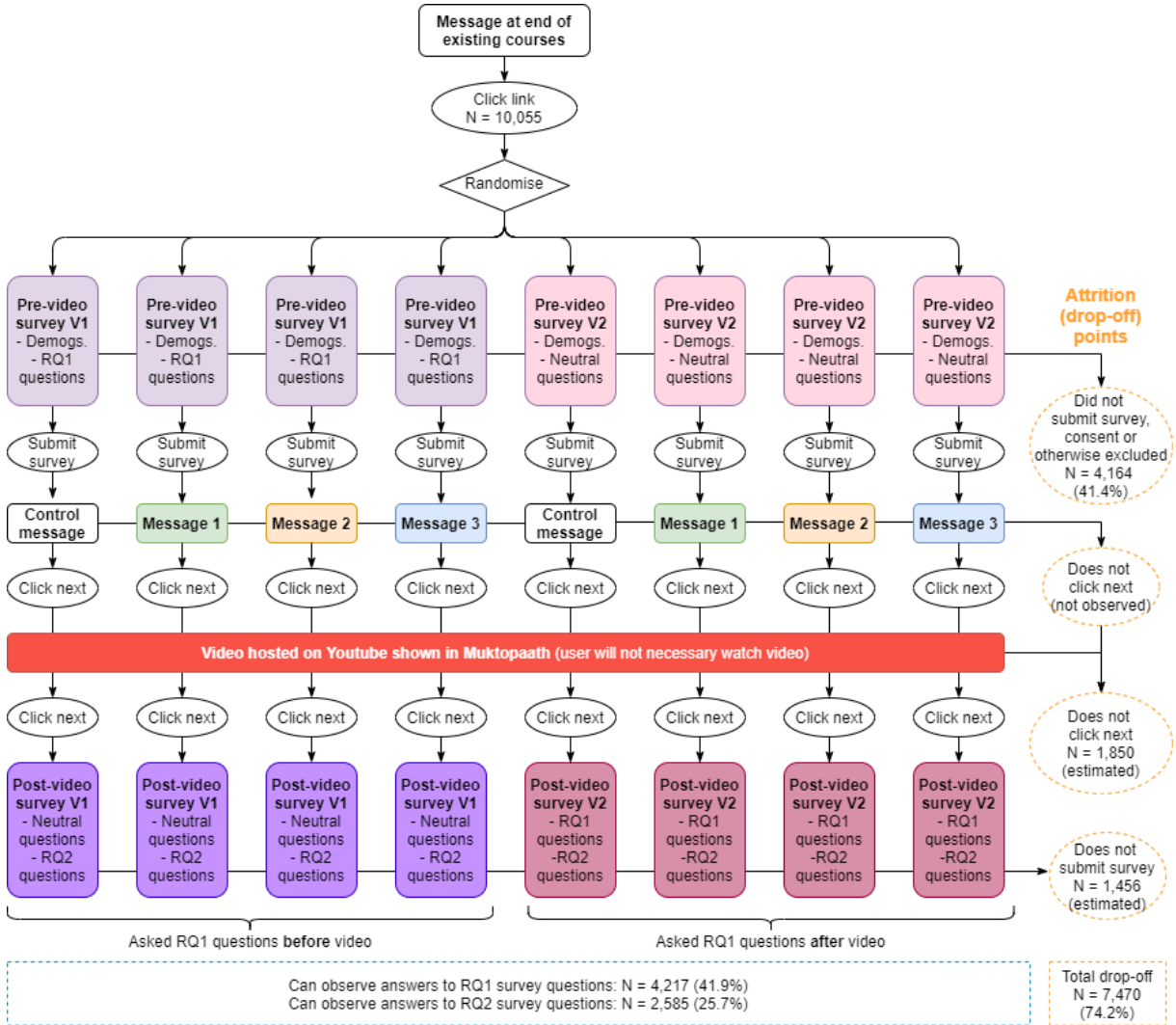
---

The video was hosted on an [unlisted URL](#) on Muktopaath's YouTube account and embedded within the Muktopaath website, as shown in the screenshot below. While we did not want to force users to watch the entire video (as this would not be realistic in most contexts where a video could be deployed), we nudged them to at least start watching the video by deactivating the 'next' button, shown underneath the video, for approximately 10 seconds.



**Trial design and attrition**

In the diagram below, 'RQ1 questions' refers to outcome measures for the video, while 'RQ2 questions' refers to outcome measures for the motivational messages.



## Notes

<sup>1</sup> <https://www.who.int/news-room/spotlight/the-impact-of-covid-19-on-global-health-goals>

<sup>2</sup> <https://www.economist.com/briefing/2021/05/15/there-have-been-7m-13m-excess-deaths-worldwide-during-the-pandemic>

<sup>3</sup> The specific results shown in this graph should be treated with more caution since they were not pre-specified in the trial protocol (and are hence 'exploratory'). We did not conduct statistical significance testing on this more granular data due to the increased risk of finding statistically significant effects by chance. Unlike for the primary and secondary analyses, we did not use multiple imputation to address missing data or run sensitivity analysis to test the robustness of this exploratory analysis to different assumptions about the missing data.

<sup>4</sup> a2i is an innovation unit within the ICT Division of the Bangladeshi government.

<sup>5</sup> This research is based on both survey data and qualitative research methods, for example:

- Ebola related study in Sierra Leone where Ebola survivors have been found to be less likely to seek health care due to stigma - James, P. B., Wardle, J., Steel, A., & Adams, J. (2020). An assessment of Ebola-related stigma and its association with informal healthcare utilisation among Ebola survivors in Sierra Leone: a cross-sectional study. *BMC public health*, 20(1), 182.

- Feyissa, G. T., Lockwood, C., Woldie, M., & Munn, Z. (2018). Reducing HIV-related stigma and discrimination in healthcare settings: a systematic review of guidelines, tools, standards of practice, best practices, consensus statements and systematic reviews. *Journal of Multidisciplinary Healthcare*, 11, 405.

<sup>6</sup> "Lastly, we find some evidence that fear is breeding stigma in some communities (Table 5). Nearly one-third of refugees and hosts (30.9% and 35.1% respectively,  $p=0.406$ ) report that suspected carriers of COVID-19 were prevented from receiving treatment in their community", p.6 in Lopez-Pena et al. 2020. Table 5 suggests the question captures the proportion agreeing to the statement: "People showing symptoms are not allowed to receive treatment in the community". We are unsure how to interpret the phrase "not allowed" (i.e., does this mean that people seek medical care but are prevented from doing so by others, and if so, in what way are they prevented?). However, it is plausible that if such a high proportion believe that they will be prevented from receiving care, then they may in turn deny early symptoms and fail to seek care.

Lopez-Pena P, Austin Davis C, Mushfiq Mobarak A & Raihan S. (2020) Prevalence of COVID-19 symptoms, risk factors, and health behaviors in host and refugee communities in Cox's Bazar: a representative panel study. [Preprint]. *Bull World Health Organ*. E-pub: 11 May 2020. Doi: <http://dx.doi.org/10.2471/BLT.20.265173> [https://www.who.int/bulletin/online\\_first/20-265173.pdf](https://www.who.int/bulletin/online_first/20-265173.pdf) See page 6 and table 5 in particular.

<sup>7</sup> E.g., "Callers prefers to be treated at home rather than in a clinic or hospital due to being identified as an affected", comment taken from the English transcript of the doctor interviews.

<sup>8</sup> After taking an initial action (calling a helpline) which is free from risk of stigmatisation, individuals may also be more likely to subsequently take the responsible/healthy behaviours (e.g. self-isolating, resting and going to hospital if it gets worse) if a doctor instructs them to, even if there still exists some risk of stigma from those subsequent actions.

<sup>9</sup> WHO Director-General Tedros Adhanom Ghebreyesus at the Munich Security Conference on Feb 15 commented: "We're not just fighting an epidemic; we're fighting an infodemic"

<sup>10</sup> <https://www.who.int/health-topics/infodemic>

<sup>11</sup> The helpline is introduced early (at 35 seconds) and mentioned five times in total during the video.

<sup>12</sup> The 'Thanking' motivational message was dropped from the trial after launch due to sample size concerns. We believed this arm of the trial was least likely to yield additional information on top of the prosocial arm and the nostalgia arm.

<sup>13</sup> The Bengali translations can be found [here](#).

<sup>14</sup> - Cialdini, R. B. (2006). *Influence: the psychology of persuasion*, revised edition. New York: William Morrow; Regan, D. T. (1971). Effects of a favor and liking on compliance. *Journal of experimental social psychology*, 7(6), 627-639; Sanders, M & Kirkman, E. (2014). I've booked you a place. Good luck: A field experiment applying behavioural science to improve attendance at high-impact recruitment events. *Centre for Market and Public Organisation Working Paper Series No. 14/334*.

<sup>15</sup> Grant, A. M., & Hofmann, D. A. (2011). It's not all about me: Motivating hand hygiene among health care professionals by focusing on patients. *Psychological science*, 22(12), 1494-1499.

<sup>16</sup> - Wu, Z., Chen, Y., Geng, L., Zhou, L., & Zhou, K. (2020). Greening in nostalgia? How nostalgic traveling enhances tourists' proenvironmental behaviour. *Sustainable Development*, 28(4), 634-645.

- Kersten, M., Cox, C. R., & Van Enkevort, E. A. (2016). An exercise in nostalgia: Nostalgia promotes health optimism

---

and physical activity. *Psychology & Health*, 31(10), 1166-1181.

- Lasaleta, J. D., Sedikides, C., & Vohs, K. D. (2014). Nostalgia weakens the desire for money. *Journal of Consumer Research*, 41(3), 713-729.

<sup>17</sup> See Annex for a diagram of the trial design, showing how participants were initially randomly assigned to one of 8 arms (the combination of 2 video conditions and 4 message conditions). As mentioned above, one of the message conditions was dropped after the trial was launched, leaving new participants to be assigned to one of 6 arms.

<sup>18</sup> As secondary outcome measures, we also measured strength of intentions to encourage others to call the helpline as well as the rate at which people dropped out of the trial after seeing the message.

<sup>19</sup> Specifically, we use multiple imputation by chained imputation (MICE) to fill-in missing data among the sample that completed at least the first survey, and then use this dataset to estimate the primary regressions (which also include the baseline characteristics described above as covariates). We conduct the imputation separately by trial arm to guard against possible interactions between treatment assignment, outcomes and attrition (see Sullivan et al (2018) for more details about this approach). We conduct robustness checks in the form of complete-case analysis (CCA) with baseline characteristics included as covariates. In all results below the estimated impacts were very similar in the MICE estimates and the CCA. Where we find significant effects of the treatment we also test the sensitivity of these results using the delta-based controlled imputation method described in Cro et al (2020)). The results of these sensitivity tests are described in subsequent endnotes.

<sup>20</sup> The results of the sensitivity analysis, conducted using delta-based controlled imputation, suggests a moderate degree of caution. To set the range of deltas we used the range of differences predicted by observed covariates: these predicted at most a 7 percentage point difference in this primary outcome, with most categorical variables (e.g. gender) predicting smaller differences of between 0 and 2.5 percentage points. When we varied delta between a range of +7 and -7 percentage points, the range of estimated treatment effects varied between +6.5 percentage points and -1.5 percentage points. The estimated treatment effect becomes non-statistically significant at small negative values of delta, and crosses 0 at a delta of approximately -4 percentage points (or for roughly 25 percent of the range of deltas we tested).

<sup>21</sup> The effect on the primary outcome was smaller than this underlying change because the video also seemed to increase the likelihood of participants selecting 'carry on as normal'. We believe this reflects an unintended interpretation of the survey response rather than a backfire effect. If participants who watched the video had incorrectly concluded that people with symptoms should continue their daily activities, including in public where there is a risk of further transmission, then we would expect to see an increase in the proportion who would advise others to 'carry on as normal' and *not* 'isolate at home'. However, on that combination of responses we see a *decrease* by 6 percentage points in the group who watched the video.

<sup>22</sup> Since we were not targeting this specific message, we did not plan to conduct this analysis. As such, the result should be treated as exploratory, and we have not conducted statistical significance tests to quantify the likelihood that it was produced by chance. Nevertheless, given the large difference we think this effect would have a high chance of being replicated in a follow-up study.

<sup>23</sup> Again we used the delta-based controlled imputation method described above. We tested sensitivity to a range of deltas between +9 and -9 percentage points (informed by the differences in this outcome predicted by observed baseline characteristics, the largest of which was 8.8 percentage points). Across this range of deltas, the estimated treatment effect varies from +13 percentage points to +3.5 percentage points. Notably, it is both positive and statistically significant (at the 5% level) across this entire range, suggesting any marginal effect associated with an unobserved variable that differs between those with and without missing outcomes (and that is uncorrelated with the observed characteristics) would have to be larger than that associated with any of the observed baseline characteristics to eliminate the estimated treatment effect.

<sup>24</sup> We tested sensitivity to a range of deltas between +10 and -10 percentage points (the largest difference in this outcome predicted by observed baseline characteristics was 9.7 percentage points). Across this range of deltas, the estimated treatment effect varies from +10 to -2 percentage points. It becomes non-statistically significant at deltas below approximately -4 percentage points, is negative below approximately -6 percentage points (less than 25 percent of the range of deltas tested and an effect larger than the effects associated with almost all observed baseline characteristics).

<sup>25</sup> - To make a judgement about what constitutes a "high" level of recall in the treatment group, we collected independent benchmarks from project team members before the trial launched about what would constitute a satisfactory level of recall on each item (We cannot compare the treatment and control group on these answers since the questions themselves refer to the video).

- We found that for 3 out of the 4 recall questions, recall was within or higher than the range of pre-specified benchmarks (see Figure 10).

- The one exception was recall of the main message of the video. We collectively hoped at least 75% of participants would identify and remember the main message as 'people should call a helpline if they are unwell'. The actual result fell well short of this benchmark because one-third of participants instead selected 'people should report neighbours unwell with Covid to a helpline. We believe this reflected an unintended interpretation of the survey answer option

---

which was compounded by a reference to 'coronavirus' being inadvertently included in the incorrect answer option during survey translation.

<sup>26</sup> The number of answer options, and hence the likelihood of answering correctly by chance, varied across questions. For the main message and what happens after calling the helpline, there were 5 possible answers, whereas for 'in whose house does everyone have a fever' there were 4 possible answers. Answer options were not presented for the question about the helpline number; participants had to type a number in. Note also that the ease of answering correctly without watching the videos varies across questions - e.g. the question about 'in whose house' relates specifically to video whereas participants may have been exposed to the helpline numbers elsewhere.