

CVDR/S6/22/15/1

COVID-19 Recovery Committee

**15th Meeting, 2022 (Session 6), Thursday
26 May 2022**

COVID-19: communication of public health information:

Introduction

1. At its meeting on 28 April 2022, the Committee agreed to hold an inquiry into the effective communication of public health information and tackling misinformation. The purpose of this inquiry is to hear from experts and stakeholders about the effective communication of public health information, evidence-based decision-making and tackling misinformation drawing on the experience of the COVID-19 pandemic.

2. The inquiry has the following aims—

- To understand the challenges, including the existence of any misinformation and disinformation, faced by government in communicating public health messages in the pandemic to date and to consider what could be done by government to tackle these issues going forward;
- To consider whether public health information about COVID-19 is accessible to and meets the needs of specific audiences going forward, including people in the shielding category and communities where there has been below average uptake in vaccination to date;
- To understand how scientific information about personal health risks and risks to wider society can be best used to inform decision-making and public health messaging.

3. At this meeting, the Committee will take evidence on the first two aims of the inquiry from the following panels of witnesses—

Panel 1

- Callum Hood, Head of Research, Centre for Countering Digital Hate;

- Will Moy, Chief Executive, Full Fact;
- Dr Dawn Holford, Senior Research Associate, SciBeh; and
- Tracey Brown OBE, Director, Sense about Science

Panel 2

- Nick Phin, Clinical Director and Director of Health Protection, Public Health Scotland;
- Stefan Webster, Regulatory Affairs Manager, Ofcom; and
- Ed Humpherson, Director General for Regulation, Office of Statistics Regulation

4. Further background information on the witnesses and issues for discussion can be found in SPICe paper 2 for this meeting.

Evidence

5. The Committee received written evidence from the following organisation in advance of this meeting which is attached at the Annexe to this note—

- SciBeh

6. The Committee is also expecting a written submission from Sense about Science, which will be circulated to members prior to the meeting.

7. In advance of these formal evidence sessions, on 19 May 2022, the Committee held an informal discussion with fellows from the Royal Society of Edinburgh to discuss the findings of its [Post Covid Futures Commission](#). This session pertained to the third aim of the inquiry above regarding the use of scientific information in decision-making and public health messaging. A note of that discussion has been published on the Committee's [website](#).

Next steps

8. The Committee will continue to take evidence on its inquiry at its meetings on 23 and 30 June 2022.

Committee Clerks
May 2022

ANNEXE

Written evidence submitted by SciBeh

Executive Summary

- The key challenges of communicating public health messages during the pandemic relate to maintaining public knowledge of and trust in quickly changing information and combatting misinformation.
- When developing public health messaging during the crisis, expressing false certainty in initial messaging is unwise because this will impact trust when guidance needs to change.
- Government could capitalise more on strategies for social listening to identify and address information needs before misinformation and disinformation fill the gaps.
- Government could improve the accessibility and relevance of public health messages to targeted communities by avoiding top-down assumptions about why people are not adopting recommendations and actively listening to the relevant population.
- Once facts are communicated, choices need to be made easy for people. Behavioural insights can inform political interventions such as vaccination campaigns not only in communication but also in how to structure supporting on- and offline infrastructure (e.g., websites, support networks, vaccination centres).
- There is considerable collective and diverse expertise among researchers that could support Government in communicating science and public health messages based on evidence-informed principles. However, there is a lack of infrastructure to help with rapid consolidation of this expertise to enable the implementation of best practice.

1 Background to this submission

- 1.1 SciBeh¹ is an initiative that advocates better crisis knowledge management that enables scientific evidence from the behavioural science domain to be policy-relevant for COVID-19 and beyond.
- 1.2 In this statement, we present evidence about the challenges to public health communication over the past two years. This evidence comes from our efforts in monitoring, curating, and communicating Covid-relevant behavioural science information to policy-makers, practitioners, and the public.
- 1.3 We have also asked our wider network of experts in the public health messaging, crisis response, and community engagement domains to provide additional insights. We include a list of all contributors at the end of this statement.
- 1.4 Underpinning the evidence and recommendations in this statement is the critical role of public trust in institutions during a crisis². It is important to bear in mind how to tackle any challenges while maintaining public trust in health authorities and governments.

2 Informational challenges faced in communicating during a public health crisis.

- 2.1 The informational challenges faced during a public health crisis such as COVID-19 can be conceptualised on three levels (see Box 1). These challenges are amplified on social media, but social media itself also affords multiple new means to tackle the challenges, which governments and public health officials could capitalise more on.

Box 1. Three informational challenges to public health communication about COVID-19

Underinformation: Lack of, or insufficient knowledge of information that is relevant to making decisions relevant to individual and public health protection against disease.

¹ <https://scibeh.org>

² [https://www.thelancet.com/journals/lancet/article/PIIS0140-6736\(22\)00172-6/fulltext](https://www.thelancet.com/journals/lancet/article/PIIS0140-6736(22)00172-6/fulltext)

Misinformation: False information that is spread either by mistake or with intent to mislead.

Disinformation: Intentional spread of false information, often to achieve political or financial aims.

2.2 Underinformation

2.2.1 Many people remain under-informed about some basic facts about COVID-19, such as how it spreads through airborne transmission³. This is despite high levels of motivation to seek out pandemic-related information during earlier stages of the pandemic⁴.

2.2.2 One reason for underinformation can be lower levels of health literacy, leading to barriers in processing COVID-19 information and confusion about key facts about the disease⁵.

2.2.3 A second reason is that public health messaging about COVID-19 took place in a rapidly-changing information environment, which requires people to understand the information and also update it when new evidence emerges. This could cause confusion as people attempt to reconcile what appear to be conflicting messages and/or misinformation⁶, or “tune out” new information.

2.2.4 A third reason is changes in motivation to keep up with new information over time. For example, people may be motivated to learn about potential impacts of COVID-19 on multiple organs while still deciding how to avoid infection, but they may no longer wish to learn about these once they have been infected.

2.2.5 To reduce confusion about existing facts, governments could ensure that health information is user-friendly: easy to access, understand, process as relevant, and apply⁷. This may mean timely consultation or testing with appropriate target groups to assess how messages would be understood, as well as continued monitoring to identify any emerging confusion. It also means

³ <https://www.gov.uk/government/news/new-campaign-to-stop-covid-19-hanging-around>;
<https://www.bi.team/blogs/do-you-understand-the-guidance-four-findings-from-an-experiment-with-3702-adults-in-england/>

⁴ <https://www.imir.org/2020/10/e19791/>

⁵ <https://www.mdpi.com/1660-4601/17/15/5503>

⁶ <https://journals.sagepub.com/doi/full/10.1177/1075547020959670>

⁷ <https://m-pohl.net/sites/m-pohl.net/files/inline-files/HLS19%20Executive%20Summary%20V1.1.pdf>

being mindful of the fact that citizens perceive actions, too, not just recommendations, to communicate information. Overlooking this has led to perceived conflicts and “mixed messaging” from governments, for example campaigning to encourage booster vaccination uptake while removing most or all pandemic measures.

- 2.2.6 Keeping the public up to date given the evolving nature of the evidence seems a larger challenge. Communicating about uncertainty could signpost that the situation is evolving and people need to stay up to date. However, there has understandably been concern about whether communicating uncertainty about scientific predictions (e.g., predicted Covid deaths) and subsequent changes to information would affect public trust.
- 2.2.7 In the short term, acknowledging uncertainty may reduce the persuasiveness of a message⁸, but it does not necessarily impact trust⁹. In general, people are receptive to the communication of uncertainty¹⁰. Forewarning the public about why changes will be forthcoming may also help maintain trust when guidance (inevitably) needs to be changed¹¹.
- 2.2.8 Overall, false certainty should be avoided, as in the longer term, subsequent changes of guidance can erode, or be weaponised to erode trust¹².

2.3 Misinformation

- 2.3.1 A poll by Ofcom found that 46% of the British population reported exposure to fake news about COVID-19¹³. Belief in and exposure to misinformation have significant detrimental consequences on trust and support of public health behaviours for managing the pandemic¹⁴.

⁸ <https://www.science.org/doi/pdf/10.1126/sciadv.abd4563>

⁹ <https://royalsocietypublishing.org/doi/10.1098/rsos.181870>; <https://www.pnas.org/doi/10.1073/pnas.1913678117>

¹⁰ <https://www.nature.com/articles/s41558-019-0587-5>;

<https://journals.sagepub.com/doi/10.1177/0963662520942122>

¹¹ <https://sjdm.org/journal/21/210819a/jdm210819a.pdf>

¹² <https://www.facetsjournal.com/doi/10.1139/facets-2021-0018>

¹³ <https://www.ofcom.org.uk/about-ofcom/latest/features-and-news/half-of-uk-adults-exposed-to-false-claims-about-coronavirus>

¹⁴ <https://www.nature.com/articles/s41562-021-01056-1>;

<https://bmcpublihealth.biomedcentral.com/articles/10.1186/s12889-021-10643-w>;

<https://journals.sagepub.com/doi/full/10.1177/19485506211000217>

- 2.3.2 A number of resources are available on the best ways to debunk misinformation¹⁵. Critically, research has shown that public trust in scientists and healthcare professionals increased over the course of the pandemic¹⁶, meaning they may be the best messengers for debunking misinformation and should be supported in this role.
- 2.3.3 While debunking is one tool that can be effective at combatting misinformation that has already spread¹⁷, governments also need to consider what can be done to combat misinformation at an early stage, to better contain its spread¹⁸. During a pandemic, misinformation spreads quickly because people turn to narratives that help them navigate their fears and uncertainties in a crisis¹⁹.
- 2.3.4 Misinformation tends to fill gaps where people’s informational needs are not met so the critical time to combat it may be when people are first asking questions and expressing uncertainties and anxieties about the crisis. This requires a system to monitor public discourse in real time, so that health authorities can provide trusted answers and psychological reassurance in a timely fashion—a strategy known as “social listening”²⁰.
- 2.3.5 Such systems have emerged during the pandemic to track different concerns from citizens, for example, the CoVaxxy social media observatory²¹. Indeed, the World Health Organization used social listening to understand the communication needs of communities during COVID-19, recognising it as a cost-effective way to gain rapid insights²².
- 2.3.6 Linking up the public sector with existing data observatories (a list of examples is provided in the Appendix) may be a good way to start building social listening capabilities to inform public health communication. However, it is likely that governments would need to commit some resources and funding

¹⁵ A list of these resources is in the Appendix.

¹⁶ <https://wellcome.org/news/public-trust-scientists-rose-during-covid-19-pandemic>

¹⁷ <https://www.climatechangecommunication.org/wp-content/uploads/2020/10/DebunkingHandbook2020.pdf>

¹⁸ <https://journals.sagepub.com/doi/full/10.1177/2053951720980127>

¹⁹ <https://sks.to/conspiracy>; <https://www.nature.com/articles/s41591-022-01728-z>

²⁰ <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC9014949/>

²¹ <https://osome.iu.edu/tools/covaxxy>; more examples are provided in the Appendix.

²² <https://pubmed.ncbi.nlm.nih.gov/34042821/>

towards developing more targeted tools and new partnerships to pursue this strategy in the near future²³.

2.4 Disinformation

2.4.1 It is impossible to address misinformation without acknowledging that a substantial amount of it is spread intentionally as disinformation by co-ordinated groups and networks, often politicised to achieve specific aims such as destabilising society, promoting vested interests, or financial profit²⁴. As examples, a co-ordinated campaign kick-started the hoax that 5G Internet caused coronavirus²⁵ and at least one libertarian think-tank with a history of climate denial has funded opposition to social distancing measures to control the pandemic²⁶. Likewise, networks that formed around Covid denialism and anti-vaccination sentiment appear to be switching to misinformation about Ukraine recently²⁷.

2.4.2 Governments therefore need to be clear that they are now actually facing well-resourced, organised campaigns that push back on scientific information and public health messages. These cause damage not just through disinformation itself, but also by portraying the push-back against the disinformation as itself a political act, further damaging public trust.

2.4.3 To have a better chance to (re)build trust in science and institutions and support resilience against misinformation, investments will be needed in the necessary infrastructure to monitor and combat mis- and disinformation, crucially allowing public health communicators to get ahead of its spread. This would be facilitated by committing resources and funding towards enabling social listening as a tool to understand when, where, and how communities are susceptible to misinformation, and act at an early stage with targeted messaging.

²³ https://academic.oup.com/cid/article/74/Supplement_3/e34/6585955

²⁴ <https://link.springer.com/book/10.1007/978-3-030-94825-2?noAccess=true#page=131>;
<https://counterhate.com/research/the-disinformation-dozen/>

²⁵ https://eprints.qut.edu.au/202960/1/P904_Like_a_virus_COVID19_disinformation_Web_.pdf

²⁶ <https://www.sciencedirect.com/science/article/pii/S2352154621000474>;

<https://www.exposedbycmd.org/2021/12/22/how-the-koch-network-hijacked-the-war-on-covid/>

²⁷ <https://www.covidstates.org/reports/misperceptions-about-the-war-in-ukraine-and-covid-19-vaccines>

3 Increasing accessibility and relevance of public health information about COVID-19.

- 3.1 Governments can improve the accessibility and relevance of public health communications to targeted communities by actively listening to these communities and understanding their concerns and their perception of messages and what is happening, rather than assuming politicians or experts need to figure out the right way to tell people scientific information. This is also a form of social listening, and there are many ways to collect the data that would yield this behavioural insight (both on and offline). However, a crucial part of the process is to avoid embedding a top-down assumption that “we” know why “they” are not doing something into public health messages.
- 3.2 One issue to address is whether the right mix of channels (e.g., online, social media, radio, etc.) is used to reach people. Lower access to digital channels is often associated with the same factors that increase individuals’ vulnerability to disease (e.g., social and economic deprivation and older age²⁸) and make it vital for public health guidance reaches them.
- 3.3 People’s trust in an information channel should also be considered²⁹. The majority of people trust highly health information from scientists and critically, healthcare professionals³⁰. A key pillar of an accessible public health communication strategy should thus be to support healthcare professionals in providing such information and debunking misinformation with training to build their knowledge, skills, and confidence³¹.
- 3.4 However, trust in any particular source may vary among communities. Because of this, it is critical to gather behavioural insights that assess how well communities have received existing public health messages as well as identify key channels to communicate these messages³².
- 3.5 In the context of COVID-19, a priority should have been to engage with communities with lower levels of trust in the government. Ultimately,

²⁸ <https://m-pohl.net/sites/m-pohl.net/files/inline-files/HLS-GER2%20Summary.pdf>;
<https://sigmapubs.onlinelibrary.wiley.com/doi/10.1111/jnu.12616>

²⁹ <https://apps.who.int/iris/rest/bitstreams/1332346/retrieve>

³⁰ <https://wellcome.org/news/public-trust-scientists-rose-during-covid-19-pandemic>;
<https://apps.who.int/iris/bitstream/handle/10665/339854/WHO-EURO-2021-1944-41695-57054-eng.pdf>

³¹ See, e.g., <https://onlinelibrary.wiley.com/doi/10.5694/mja2.51475>

³² <https://www.eurosurveillance.org/content/10.2807/1560-7917.ES.2022.27.18.2100615>

governments and public health organisations need to establish two-way communications that are informed by data and supported by community engagement³³. We provide in the Appendix three examples of successful health communication observed during the pandemic.

4 Bridging the gap between expert evidence and public health communications.

- 4.1 Prior to the pandemic, certain principles for effective science communication, coming from a large body of scientific research, were already known, for example, how to communicate risks³⁴, the value of communicating social benefits³⁵, and the need for transparency to build trust³⁶. In addition, new evidence rapidly emerged in the past two years on how these principles could be effectively implemented in the COVID-19 context³⁷. Behavioural science evidence has consistently reinforced the importance of making it easier to follow recommendations, meaning that public health messages need to be clear about what action to take, how to take it, and why.
- 4.2 However, judging from campaigns we witnessed across a number of countries, there does not seem to have been systematic adoption of such guidance in public health communication during the pandemic. There thus remains a substantial gap between experts engaged in this research area and those implementing health communications.
- 4.3 A number of structural barriers impede effective implementation of evidence-based guidance. First, although relevant evidence may exist in generic form or for previous situations, adapting existing research at the outset of a crisis, before context-specific evidence is acquired (which can take months), still requires the input of experts working in the field to advise on the best way to apply it to the crisis context and evaluate its success³⁸.

³³ <https://apps.who.int/iris/rest/bitstreams/1332346/retrieve>

³⁴ <https://journals.sagepub.com/doi/full/10.1177/2381468316665365>

³⁵ <https://doi.org/10.1037/a0031590>

³⁶ <https://www.sciencedirect.com/science/article/pii/S0140673611606788>

³⁷ E.g., https://cdn.who.int/media/docs/default-source/science-translation/case-studies-1/cs5_factboxes.pdf?sfvrsn=9151fbaf_4; <https://www.pnas.org/doi/10.1073/pnas.2107179118>;

<https://www.pnas.org/doi/10.1073/pnas.2024597118>

³⁸ <https://www.sciencedirect.com/science/article/pii/S0001691822000427>

- 4.4 Second, in the case of communicating COVID-19 information, it was necessary to draw on expertise that was distributed across experts and disciplines. For instance, it required knowledge of the relevant information to communicate (e.g., key facts about viruses or vaccines, typically the domain of virologists) paired with knowledge of how to communicate it (e.g., the structure, format, or channel of messages, typically the domain of behavioural science experts) to turn scientific information into understandable and actionable communications for the public.
- 4.5 Third, acquiring usable input from a wide network of relevant experts within the rapid time frame needed for crisis response is a sizeable challenge. It requires public health organisations and policy-makers to seek out the relevant experts for the problem—often spanning multiple disciplines and countries—and experts to engage within the timeline and be open to incorporating perspectives outside their own disciplines.
- 4.6 It is thus not surprising that critical connections between researchers and policy-makers were not always made in a timely fashion to enable (a) the production of guidance before communication was first needed and (b) relay the outputs directly to government officials in a position to implement them. Even where they have succeeded, they have arguably not always done so with sufficient transparency as to maintain public trust³⁹.
- 4.7 We thus see one of the most important takeaways from the pandemic as the need for novel ways to connect scientists and policy-makers that supplement the traditional science-policy process.
- 4.8 SciBeh ran two workshops with interdisciplinary groups of experts and practitioners to tackle the challenges hindering policy-relevant science⁴⁰ and harness collective intelligence to communicate scientific outputs⁴¹ during the pandemic. One of the key elements identified for effective implementation of crisis-relevant research was an emphasis on synthesising evidence from diverse sources.
- 4.9 Diversity is critical both in terms of the source of the evidence and the pool of experts consulted to interpret it and advise policy-makers. It captures a wider

³⁹ <https://www.bmj.com/content/375/bmj.n2718.full>

⁴⁰ <https://www.scibeh.org/events/workshop2020/#outputs>

⁴¹ <https://www.scibeh.org/events/workshop2021/>

breadth of knowledge that has relevance to more communities and also gives the potential to communicate not just the evidence but the strength of scientific consensus around it—which can be a powerful tool when communicating to the public⁴².

- 4.10 Consolidating a diverse evidence base from a wide expert pool within a short time frame is challenging, but not impossible. There have been several examples of such rapid collective intelligence projects to produce policy-relevant guidance and advice for public health communication throughout the pandemic in short time frames (weeks to a few months)⁴³. A crucial role for governments may therefore be to support the development of such new means and formats for helping the scientific community interact as a collective with the policy process.

Contributors to this statement

Dawn Holford, University of Bristol

Mirjam A. Jenny, University of Erfurt

Ulrike Hahn, Birkbeck College, University of London

Anastasia Koylyu, World Health Organization Europe

Martha Scherzer, World Health Organization Europe

Stephan Lewandowsky, University of Bristol

Stefan Herzog, Max Planck Institute for Human Development, Berlin

Angelo Fasce, University of Coimbra

Marlene Wulf, Max Planck Institute for Human Development, Berlin

⁴² <https://www.nature.com/articles/nclimate1720>

⁴³ The COVID-19 Vaccine Communication Handbook (1.5 months) <https://c19vax.scibeh.org>; British Psychological Society guidance (a few weeks to a few months) https://mdpi-res.com/d_attachment/ijerph/ijerph-18-10255/article_deploy/ijerph-18-10255.pdf?version=1632909196; World Health Organization-led publication (3 months) <https://www.nature.com/articles/s41562-020-0906-x>

Appendix

A1 Resources for debunking misinformation

- The Debunking Handbook 2020: <https://www.climatechangecommunication.org/debunking-handbook-2020/>
- The COVID-19 Vaccine Communication Handbook: <https://c19vax.scibeh.org>
- The Conspiracy Handbook: <https://www.climatechangecommunication.org/conspiracy-theory-handbook/>
- The Bad News Game: www.getbadnews.com (see also: <https://www.sdmlab.psychol.cam.ac.uk/research/bad-news-game>)
- Go Viral!: <https://www.goviralgame.com/en> (see also: <https://www.cam.ac.uk/stories/goviral>)
- World Health Organization guidance: <https://www.euro.who.int/en/health-topics/disease-prevention/vaccines-and-immunization/publications/2016/best-practice-guidance-how-to-respond-to-vocal-vaccine-deniers-in-public-2017>
- Boosting decision making website from the Center for Adaptive Rationality (Max Planck Institute for Human Development, Berlin): <https://scienceofboosting.org/digital-cognitive/>
- Inoculation Science webpage with videos and games: <https://inoculation.science/>
- The Vaccine Knowledge Project: <https://vk.ovg.ox.ac.uk/vk/>

A2 Examples of data observatories for social listening

- Indiana University Observatory on Social Media: <https://osome.iu.edu/>
- Center for Monitoring, Analysis, and Strategy (CeMAS): <https://cemas.io/en/projects/landecker-re-con/> (see also: <https://cemas.io/about-cemas/>)
- Cardiff Online Social Media Observatory: <https://www.cardiff.ac.uk/research/explore/research-units/collaborative-online-social-media-observatory>

- Case studies in implementing social listening in immunisation communication, GAVI: <https://www.gavi.org/sites/default/files/2021-06/Finding-the-Signal-Through-the-Noise.pdf>
- World Health Organization EARS platform for social listening: <https://pubmed.ncbi.nlm.nih.gov/34042825/> (see also: https://www.who.int/docs/default-source/epi-win/presentations-of-all-speeches/webinar-16-tz-mediameasurement-8-april-2020.pdf?sfvrsn=5af42396_2)

A3 Examples of successful communication strategies to achieve public health goals (including among harder-to-reach communities).

- Wales and Scotland ran successful COVID-19 vaccination campaigns where people were given date/time/location in personal vaccine invitation letter, with expected timelines previewed in the media. This reduced barriers to access and adhered to the behavioural science literature on the benefits of ‘defaults’⁴⁴ and action-relevant knowledge⁴⁵. This was in contrast to England and Germany, for example, where residents were advised to book appointments online, posing a challenge to individuals with low confidence (or lack of access) on digital platforms.
- Germany and Denmark are using a survey tool to regularly collect rapid behavioural insights about COVID-19 at the population level. Results from these surveys helped inform multiple decisions, including the implementation of mandatory mask policies in Denmark when it was shown in Germany that such mandates did not reduce other protective behaviours⁴⁶.

⁴⁴ <https://muse.jhu.edu/article/662207>

⁴⁵ <https://journals.plos.org/plosone/article?id=10.1371/journal.pone.0192594>

⁴⁶ <https://doi.org/10.1073/pnas.2011674117>

- The Netherlands implemented a national ‘vaccine hesitation telephone line’ run by trained medical students⁴⁷. Similarly, a centre in Germany operated a telephone counselling service⁴⁸ that provided advice and information—including on how to correct misinformation from friends or family members. This gave communities offline access to trusted health professionals without putting additional pressure on busy medical staff.

⁴⁷ <https://twijfeltelefoon.nl>

⁴⁸ <https://zebra-bw.com/>