How Are Advocates Talking About Vaccination? An Analysis of Field Communications

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Introduction

Since the start of the global COVID-19 pandemic, vaccines and vaccination have dominated the news media and many of our day-to-day conversations. The UK has had a high take-up of the COVID-19 vaccine, with over 93 per cent of over-12s having received at least one dose of the vaccine. Yet, since before the pandemic, much of the media and public narrative around vaccination has been one of a rising anti-vax movement and an increase in vaccine hesitancy. This is only part of the story.

When talking about vaccination, the practical barriers people can still face in getting vaccinated are far less often addressed, and the need for adequate funding and infrastructure to support vaccination programmes rarely discussed. Instead, increasing the take-up of vaccines is presented as the challenge of persuading increasingly hostile or fearful individuals.

The way in which health professionals and advocates talk about vaccination can impact how people think, feel and act when it comes to supporting vaccination programmes, and to taking up vaccines for themselves and their families. This report is designed to help those who communicate about vaccines and vaccination in the UK. The report maps the ways in which organisations currently communicate about vaccines and vaccination. It then analyses how these communications are likely to affect public thinking and whether they help, or hinder, efforts to increase vaccination. These organisations will collectively be referred to as 'the field' throughout this report, and a full list of organisations sampled is included in Appendix 1.

This report is one part of a broader project, commissioned by the Wellcome Trust. The project aims to understand current discourse and thinking about vaccines and vaccination and to identify and begin to mobilise a new framing and narrative strategy that can increase access and uptake of vaccination. A second report lays out how existing cultural models – the public's deep assumptions and implicit understandings about vaccines – impact people's views on, and support for, vaccination.

This analysis was undertaken during the COVID-19 pandemic. This means that many of the organisations sampled were necessarily focusing on encouraging uptake of the COVID-19 vaccine. This provided a good opportunity to see how the field were talking about vaccination through multiple channels and to a variety of audiences. However, care was taken to make sure the analysis also looked at communications by the field surrounding different types of vaccination.

What is framing?

Framing is making deliberate choices about what we say and how we say it. It's what we emphasise, how we explain an issue and what we leave unsaid. These choices change how people think, feel and act.

The way in which a communication is framed shapes how we interpret and respond to that information. When new frames enter public discourse, they can shift how people make sense of an issue – how they understand it, how they decide who is responsible for addressing problems and what kinds of solutions they support. Frames are thus a critical part of social change. By shifting how the public thinks about an issue, they change the context for collective decision-making and can make new types of action possible.

What are cultural models?

Cultural models are the assumptions, snap judgements and patterns of thinking that we all draw on, and default to, in order to make sense of our world. These cultural models – or mental shortcuts – help us think fast. They are activated by the things we see and hear and are shared widely across a culture.

To reframe an issue, we need first to understand the mental shortcuts people use to think about that issue. This allows us to identify productive ways of thinking that can be tapped into and amplified to build understanding and support, and spot less helpful models we want to avoid triggering.

How does cultural models research differ from public opinion research?

Public opinion research examines the explicit attitudes and preferences that people hold on specific issues. Cultural models research explores the deeper, underlying ways of thinking that shape and explain these patterns in public opinion. Where public opinion research examines what people think, cultural models research examines how people think. For example, public opinion research might demonstrate that people support health education programs more than they support policies that support access to healthy housing. Cultural models research explains why this is, revealing the role that the mindset of individualism plays in driving these opinions and preferences about health.

Research goals and approach

Below, we identify the strategies that organisations in the field use to communicate about vaccination. The research was designed to explore three questions:

- 1. What strategies does the field use to communicate about vaccination?
- 2. Based on evidence from cultural models research,² how are these strategies likely to shape public thinking and understanding?
- 3. How can the field reframe these issues to increase understanding and support and ultimately increase vaccination rates?

To answer these questions, we undertook the following processes: first, in collaboration with project partners, researchers generated a list of charities, public health organisations, campaign groups and local/national government institutions working on, and communicating about, vaccination (the 'field'). Researchers then sampled public-facing communications materials from each organisation's website and social media feeds. Next, we used qualitative analysis to identify themes, trends and patterns. Finally, the findings were interpreted against the backdrop of the public's deep assumptions and implicit understandings about vaccination identified in prior cultural models research.³

This analysis explores how field frames are likely to (1) cue and reinforce existing ways of thinking among members of the public; (2) conflict with or challenge existing ways of thinking; or (3) fail to address a topic, leaving people to 'fill in the blanks' with existing patterns of thinking. This enables us to identify how materials are likely to affect public understanding of vaccination.

This report has been organised around a set of core recommendations showing how the field can shift its practice to begin moving public thinking in more helpful ways. In presenting these recommendations, we describe the field's existing framing and storytelling strategies, and explain how these strategies are likely to be received by the public. We explain where they cue productive thinking, which can be built upon to improve understanding and support for vaccination and where they inadvertently reinforce unproductive patterns of public thinking or allow these ways of thinking to go unchecked. We then explain how these recommendations can help build understanding of and demand for the changes necessary to increase support for vaccination. These recommendations provide a starting point for shifting communications practice that further research can use to build a comprehensive strategy for reframing vaccination.

Summary of findings

The field has generated creative and effective strategies for approaching vaccination, including helping people have difficult conversations that address underlying emotions surrounding vaccine use and using the metaphor of 'vaccines as teachers' to explain how they work. Many organisations used creative formatting such as social media-friendly graphics and videos or games for children to play. They made good use of the attention to vaccination inspired by COVID-19 and often featured diversity in their imagery.

Alongside these aspects of successful communication, we also identified two overarching themes that are prevalent in field communications and can contribute to unproductive thinking:

- 1. The overwhelming predominance of individualism with regards to health
- 2. The frequency of the 'mythbusting' trope

Health Individualism model

This mental shortcut is characterised by an underlying assumption that health outcomes are driven by individual choices and behaviours, and that individuals are responsible for their own health. This can lead to moral judgements in which illness is viewed as 'self-inflicted' because of one's lifestyle.

Mythbusting

While this report focuses on framing recommendations, the mythbusting trope is a tactical communication issue that is important to highlight. Extensive research has shown that 'mythbusting' reinforces incorrect beliefs by repeating them in ways that are easy to remember.⁴ This is especially true when the wrong information is more prominent in the design. In this way, mythbusting unfortunately participates in the circulation of misinformation. (The broader point that information itself is not enough to increase vaccination uptake is discussed in Recommendation 2 below). Mythbusting should be avoided.

This report makes three recommendations for how the field can tap into more productive ways of thinking to build understanding and support:

1. Expand the story of vaccination and show that we're in this together

By focusing heavily on individuals and their choices, the field is missing out on expanding the story of vaccination to also discuss and address the structural barriers to vaccine uptake and the interconnected nature of vaccine success for our communities locally, nationally and globally.

2. Build trust

Facts and statistics alone are ineffective at persuading people to think or act differently. To reach out beyond the already converted, we need to also focus on building trust.

3. Explain how vaccines work

Explaining *how* vaccines work, rather than just stating that they do, and explaining *why* they are important can be a powerful way of increasing understanding and building support for vaccination.

Recommendations

Recommendation 1: Expand the story of vaccination and show that we're in this together

Most communications in the field frame vaccination as a question of individuals' beliefs and behaviour patterns. However, when it comes to vaccination rates, access to vaccination services and distribution of vaccines are also significant barriers that need to be addressed.

When people think health is down to the individual choices we make, it can lead them to be judgemental about illness being someone's own fault. In the case of vaccines, it can lead people to think in very narrow terms about it being up to individuals to make a good choice around vaccination. This leaves little space for people to think about, or support, structural solutions to address access to vaccinations, like the time of day or location of vaccination appointments or the availability of information in a variety of languages. The field needs to be careful when triggering individual thinking and increase understanding of the need for structural change.

The field should also emphasise the benefit of vaccination to our community and broader society, and the interconnected, global nature of vaccine success, to widen the lens away from individualist thinking and show that we're all in this together.

What the field is doing and how this is likely to affect public thinking

Persuading individuals to take up vaccines: 'saving lives' v. cost/benefit analysis

The field primarily focuses on persuading individuals to 'make good choices' about vaccination through the use of two dominant frames: 'saving lives' or a cost/benefit analysis.

'Saving lives' is the primary frame used across the field to emphasise the efficacy and importance of vaccines. While most organisations take this message in the direction of individual choice (e.g., 'save lives, starting with your own'), some approach this life-saving capacity more structurally by framing vaccines as a huge success and priority in public and global health. These tend to be organisations that have a broader purview on vaccines than COVID-19 and that are focused on international distribution and eradication of preventable diseases.

Many organisations frame vaccines through **pros versus cons or a cost/benefit analysis**. This cost/benefit frame is most often applied to individuals, rather than as a collective cost/benefit, which can make creating a sense of collective responsibility more difficult.

When people think of vaccination in **cost/benefit terms**, they tend to activate consumerist thinking that centres on individual choice and obscures the systemic inequalities that can prevent people from getting vaccinated. Weighing the 'pros and cons' as individual consumers inevitably places a focus on the risks of vaccination, as people think about the cons. Cost/benefit framing can legitimise unfounded concerns by presenting them as comparable to vaccine benefits, simply by giving them equal space on the page. Furthermore, talking about 'risks' and 'risk management' can easily lead to ambiguity between risks associated with the vaccine (extremely minor and unhelpful to trigger) and risks associated with getting ill (major, especially in a collective/social sense). When presented as a trade-off, people will be inclined to be risk-averse and avoid vaccination.

Talking about 'saving lives' helpfully pushes against cost/benefit thinking because it is hard to weigh 'life' against other considerations. It is too big and transcends that frame. In the field's communications, the two were not used together. 'Saving lives' also lays the groundwork for situating individuals in contexts, which can be useful for activating ideas about community benefit.

Persuading individuals to take up vaccines: protecting others

The field frequently invokes **protecting others and one's community** by getting vaccinated. Some communications state that vaccination does not only affect yourself, but also the most vulnerable and the health service, as well as those who will have to care for you if you fall ill.

Talking about the **wider community** stimulates moral reasoning and starts moving people away from thinking solely about individual choice. This is helpful, yet at times it can still fall short because of the dominance of health individualism in the UK. Culturally, it is far easier to think in terms of individual choice and persuasion rather than equitable and ethical health systems. Without also providing explanation, complex systems can be hard to grasp, and fixing or improving them can feel impossible without any reference to tangible solutions. Indeed, it may be the case that people feel disempowered and fatalistic when encouraged to think on a broader scale. This doesn't mean we should avoid communicating about systemic problems, but that extra care will be needed when talking about them to highlight solutions and show that change is possible. Further research will be needed to find the most productive ways to achieve this.

In the context of COVID-19, some field communications (especially those targeting younger people) framed vaccination as **allowing social life to resume/continue**, sometimes emphasising the greater good, such as ending/preventing lockdowns and enabling holiday gatherings. Focus on allowing social life to resume/continue can activate positive feelings about the social collective. For example, slogans like 'Every vaccination brings us closer, together' and the vaccine 'bringing us closer to making memories again' stimulate communal thinking, as does urging people to get vaccinated 'in time for the holidays' because 'It's easy to get vaccinated, it doesn't take long, and it helps keeps us and our loved ones safe.'

Persuading individuals to take up vaccines: the effectiveness of vaccines

Another way in which the field tries to persuade individuals to take vaccines is by talking about their effectiveness.

In general, the field's communications do not present vaccines as fail-safe or 'fool proof'. Rather, vaccines are usually and helpfully framed as *highly effective protection* that improve immune response and reduce disease severity. However, vaccine effectiveness is also often illustrated in the field by success at **eradicating** certain diseases.

It's good to see that, in general, the field's communications do not present vaccines as fail-safe or 'fool proof'. Such thinking can yield unrealistic expectations and contribute to flawed reasoning. But talking about vaccination in terms of **eradicating disease** can be problematic. If disease eradication is the understood purpose of vaccines, it can make it difficult to communicate the benefits of vaccination in mitigating severity of disease and preventing death. This can lead to reasoning that the risks of contracting a preventable disease are low, and thus vaccination is unimportant. Or it can unintentionally reinforce the notion that a vaccine must prevent an illness entirely in order to be considered effective or necessary.

Persuading individuals to take up vaccines: information

It is relatively easy to find **information** about what vaccinations are recommended, generally presented as a schedule that is taken for granted and doesn't leave a lot of room for debate. This supports the idea that vaccination is the norm in everyday life in the UK. Occasionally, materials emphasise the lifelong nature of vaccinations (by listing flu vaccines during pregnancy or shingles vaccines in old age, for example), pushing against the cultural assumption that they primarily happen in childhood. This strategy could be helpful to adopt more widely to normalise vaccination for emerging diseases.

Information about where and how to get vaccinated is less easy to find. Most organisations either do not mention the practicalities of access or simply refer people to the NHS, directing them to 'your GP' or to wait to receive mailed correspondence. When access does appear as an issue, it is related to distribution of vaccines to/within under-resourced countries.

The lack of **information** about where and how to get vaccinated is problematic, not just on a practical level. It points towards an assumption that all people have free, straightforward, and equal access to the NHS and, therefore, if you don't get vaccinated it's for an individual-level reason. This can fuel a mindset that unvaccinated people are simply unwilling or irresponsible, rather than addressing what else might be affecting vaccine uptake. For example, it's harder for people without a fixed address to receive information via a GP, or for isolated or homebound people to attend vaccine clinics.

Persuading individuals to take up vaccines: herd immunity

The concept of 'herd immunity' is largely used in accurate ways across the field, evoking mutual protection *through vaccination*. Some organisations suggest 'population' or 'community' immunity or 'herd protection' as alternate terms.

However, though the term may be used accurately by the field, the public's understanding of the term is mixed. There is an ambiguity between achieving 'herd immunity' via vaccination and via exposure to disease. This is a gap between expert and public thinking that is potentially tied to political discourse around COVID-19, reflecting a highly problematic 'culling of the herd' or 'survival of the fittest' mentality that also reinforces 'othering'. Herd immunity is therefore a problematic term to use, even when used accurately, because it tends to trigger ideas about sacrificing the weak and letting disease 'run its course' unchecked. The term should be avoided or replaced. Simply communicating the principle behind it – that vaccination helps the 'whole community stay safe' and protects those who can't get vaccinated – is a more productive way to get this idea across.

Essentially, herd immunity is the idea that immunity is *shared* and not a property of individuals. This is counter to the dominant health individualism model. Further research will be needed to uncover the best frames to use to build understanding of this interdependence, which moves people away from thinking about health only at an individual level.

Talking about global access

For disease eradication, vaccination must happen across the globe. The field discusses **global access** in the context of providing vaccines to under-resourced areas in the global south: the only context in which the field addresses access. Organisations state that areas where vaccines are most needed are often the least likely to get them. Global access tends to be discussed for childhood vaccines more than COVID-19 or other emerging infectious diseases.

Some organisations state that areas of the world where vaccines are most needed are often the least likely to get them. This seems unfair in a general moral sense, but it doesn't show how immunity in one place or for one person depends upon vaccination everywhere.

While domestic vaccine communications during this analysis period had a lot to say about COVID-19, globally oriented organisations focused more on childhood vaccines. In both types of communication, there is a missed opportunity for emphasising **global** interdependence as illustrated by the development and spread of COVID-19 variants. A few organisations do make this connection, for example in stating that 'For the world to be better prepared to combat infectious diseases, we urgently need new and improved vaccines,' and emphasising that getting COVID-19 under control requires a *global* vaccine rollout. The idea that countries like the UK, with large numbers of vaccines, need to donate their excess to other countries may be more effective when framed as a state of shared vulnerability and shared benefit.

Talking about vaccine hesitancy

Field communications also talk about 'vaccine hesitancy', which they described as a significant problem, for example by highlighting that in 2019 the World Health Organisation declared vaccine hesitancy to be one of the top threats to public health (though sometimes it is described as a problem largely pertaining to the global north/wealthier nations). Some organisations describe a global 'infodemic' of misinformation.

The current narrative around vaccine hesitancy can fuel a sense of 'us' v. 'them' and once again make the issue seem like one only of individual choice. While the field needs to address decreasing vaccination rates, spending significant time talking about 'vaccine hesitancy' can make it seem like not taking vaccines is a very widespread phenomenon. Whereas the reality is that most children in the UK (around 9 out of 10) have received vaccines against illnesses such as polio, diphtheria and measles. This focus on hesitancy risks denormalising vaccine uptake and fails to take account of structural and other factors which impact vaccine uptake. The field should instead continue to normalise vaccination and build a broader understanding which shows that we're in this together.

Triggering individualistic thinking

A major problem with individualistic thinking is that it can activate nationalist, racist stereotypes about people who are willing or unwilling to get vaccinated. We see this in ways of thinking that align Britishness and belonging with NHS access and vaccination, while 'othering' those who are not vaccinated. This framing fails to draw attention to systemic problems of access or to medical institutions' historical relationships with communities that experience racism, minoritisation and marginalisation.

What can help

Since **individualism** is such a dominant way of thinking about health, individual choice is necessarily relevant to vaccine communication, but it should not be the exclusive focus.

- Talk about structural barriers to vaccination as well as individual persuasion
 When explaining why vaccination rates aren't 100 per cent, talk about barriers like availability of times of appointments, or not being able to take time away from work, at least as often as you talk about addressing individual concerns.
- When talking about 'saving lives', look beyond the individual. 'Saving lives' is a good starting point on which a case for both structural access and individual choice can be built. This flexibility could be used to introduce structural thinking alongside individual persuasion, for example to build support for a specific initiative like mobile vaccination units or translation: 'By making vaccines accessible, we can save lives.'
- Frame communal and individual interests as mutually reinforcing and avoid ideas about sacrifice.
 Emphasise how protecting others and protecting oneself are linked.
- Avoid leading with disease eradication as a reason to get vaccinated. If you are talking about eradication, make it part of a collective framing of vaccination that takes the broader context and long timescale into account, instead of focusing on eradication as a reason an individual should choose to get vaccinated.
- Replace the term 'herd immunity' with an explanation that vaccination helps the whole community
 stay safe. Rather than using the term itself, emphasise the importance of each vaccination by illustrating
 the fine margin between population immunity and dangerous spread.
- Talk about solutions and how, together, we can create change, especially when discussing structural issues around vaccination. Talking about concrete actions can fight a sense of fatalism, or that these issues are too big to tackle, and show that change is possible.

Recommendation 2: Build trust

Many organisations in the field focus on getting 'correct information' out to people, operating under the assumption that they will then make the 'right' choices. But not only does this overlook structural issues with access as discussed above, it bypasses the emotional aspects of trust and fear that often motivate vaccination behaviours. Significant research has shown that facts alone fail to motivate people. If a fact doesn't already align with our existing beliefs, then we will often ignore or seek to discredit the information.⁵

While enhancing people's ability to source reliable information is important, this approach conflates 'scientific evidence' and 'expertise' with reliability and trustworthiness, while overlooking factors that may complicate that link for individuals and communities. Both expertise and emotions, facts and feelings, should be addressed in vaccination communications.

What the field is doing and how this is likely to affect public thinking

Busting myths v. building trust

The majority of organisations focus on providing factual, scientifically validated information aimed at persuading individuals to choose to be vaccinated. This is often framed in terms of costs v. benefits, which is not optimal (see Recommendation 1). Organisations will often emphasise the source of the information to establish credibility within a frame of scientific or medical expertise, including via the organisation's own expert reputation.

Within this broader approach of providing facts, 'mythbusting' is a frequently used trope that puts the 'right' and 'wrong' information side by side. This is a common layout of infographics, for example. As discussed in the introduction, this framing is counterproductive because it makes the incorrect information easy to remember. In some cases, the 'myth' is even more prominent than the 'fact', which exacerbates this problem.

A few in the field have taken a different approach to engage with people who are vaccine-hesitant by focusing their messaging on **communication and listening**, providing resources to help people feel validated about their concerns and process their reasons for being concerned about getting vaccinated. They offer guides for having 'difficult conversations' that include advice such as first checking in with your own feelings, showing empathy and not interrupting, and avoiding focusing on myths and misinformation. They emphasise that communication is hard and urge people not to get discouraged but to maintain the connection.

These organisations also offer resources for how to manage worries and make decisions (which are applied implicitly to vaccination). Some provide 'vaccine voices stories' about diverse people who had worries about the vaccine but overcame them through talking to others. If done in a relatable way, such stories could be very effective ways to build trust. These organisations explain to the public how facts are a resource

in a bigger project; that facts won't help people feel better but that knowing the facts is still important, towards which end they offer FAQ pages or references and links to 'trusted sources' that can be shared.

Information needs to be combined with an emotional awareness of trust and fear in order to be persuasive. **Mythbusting** does not include this awareness, and moreover actually reinforces incorrect information. By contrast, the **communication and listening** strategy works because it opens up space for conversations which address people's worries rather than simply bombarding them with facts. Such conversations are opportunities to practise kindness and achieve mutual understanding and respect, which can sway people's decision-making more than facts alone.

Empowering people to identify reliable information

Some organisations provide strategic advice for **identifying reliable information online**, which empowers people to identify myths themselves. For example, checking who the author is, the date the source was updated, whether there are links to credible sources and whether there are obvious biases. Some organisations include warnings against 'fake experts' and fake social media accounts, as well as help identifying vaccine scams.

Some in the field appeal to reason as distinct from fact-sharing, such as pointing out that there are easier ways to track the population than injecting biological trackers, like mobile phones. However, as with other attempts to bust myths, this can only be helpful if accompanied by addressing the feelings that make misinformation and conspiracy theories appealing in the first place and if done in a way which doesn't patronise or ridicule.

Research has found that young people are significantly more uncertain about the COVID-19 vaccine compared to older age groups. This is corroborated by research suggesting that those who rely most heavily on **online** outlets such as social media for **news and information**, rather than traditional news sources such as newspapers, are more likely to be sceptical about vaccines. Some councils are targeting this age group via schools – a productive strategy, as long as the information follows the guidelines above. That is, by sharing information about what facts are and how to identify them (including on social media), and materials helping young people figure out who and what to trust, and how to manage feeling overwhelmed by conflicting information. It can be helpful to draw attention to social media as a site of unreliable information, but harmful to incite fear with language like 'beware' of social media and it 'puts your child at risk'.

Identifying trusted messengers

The field sometimes presented information from **specific people who are likely to be found trustworthy**, as opposed to scientific, governmental or medical institutions. This includes health care providers like doctors and nurses, and expert and lay voices from communities that are racially and/or ethnically minoritised (sometimes both). Relatedly, there are a few initiatives that rely on community leadership and local knowledge to promote vaccine take-up among underserved communities, including through mobilising volunteers, organising community champions and providing access to hard-to-reach groups who aren't necessarily registered with a GP.

Using messengers that are relatable is an important way to build trust, but care should be taken to avoid tokenising people or 'targeting' specific groups from the outside. Some organisations helpfully include aspects of this framing without being 'about' or 'for' minoritised communities. Examples include mentioning support from faith leaders representing different religious communities, reassuring people that no immigration checks are carried out, and that diverse people volunteered to test the vaccine. Relatedly, all organisations can (and to some extent, do) include diverse people in their imagery, whether by skin and hair colour, body shape, recognisable disability, clothing, etc.

In the UK, **people are likely** to trust health care professionals like doctors and nurses, but not solely because these professionals are trained in science. Rather, they are seen as altruistic people who care about others – this is assumed to be what drew them to health care. People trust those they believe are motivated by helping people or humanity. Scientists as a group are less trusted than health care providers, which is why their expertise in developing the vaccine needs to be 'time tested', and complemented by a lack of real-life harms, to be trusted. Government officials and corporate actors are seen as the least benevolent and trustworthy because they seem to be motivated by self-interest.

While diversity in imagery and messaging is important, separating out minoritised groups can reinforce a false dichotomy of difference from white people in the UK. There is a risk of activating the thinking that, because of religious and cultural differences, rather than issues to do with accessibility of services, minoritised people are those in the UK who refuse to get vaccinated triggering the 'harmful stereotypes' paradigm mentioned above. However, if done carefully, the benefits of centring marginalised voices and opening a trusted line of communication via trusted messengers can outweigh this.

What can help

- Avoid mythbusting simply present correct information. Stating facts or leading with 'what does science say about x?' provides accurate information without entering a space of debate, an approach which can be targeted to specific misinformation that arises on social media.
- Put information in context to cue helpful thinking and build trust. Facts and statistics cannot be
 expected to speak for themselves; 'dressing' them is a key direction in which the field should move.
- Empower people to identify myths themselves. Helping people figure out who and what to trust, rather than attempting to debunk myths, avoids reinforcing incorrect or misleading content. Acknowledging that the abundance of information and misinformation online can cause anxiety, and that it's normal to have difficulty knowing what to believe and trust, is also a key part of making facts useful.
- Encourage compassionate conversations. Resources that help people to have respectful conversations
 free from judgement and assumptions are a productive way to change hearts and minds without
 straying into debate, which can potentially make people feel defensive.
- Focus on inclusion and diversity, not targeting specific groups. While it can build trust to highlight certain communities' experiences in medical spaces and society generally, it is important that initiatives in this vein come from marginalised groups themselves and/or are directed by people with group affinity and anti-racism training.
- Feature inclusive imagery and examples within vaccine communications. Take an inclusive approach to counteract and avoid harmful stereotyping.
- Find trusted messengers. Doctors and nurses, community and religious leaders, and local organisers are
 more likely to be trusted than institutions, government spokespeople and
 'scientific expertise'.

Recommendation 3: Explain how vaccines work

Explanation is a powerful way of increasing understanding and building support.⁷ When we explain an issue, it's a bit like showing our workings out – and in doing so, it empowers people to make up their own minds on whether they agree. This makes people feel less defensive and less likely to default to unhelpful ways of thinking.

When we don't provide enough explanation, people fill in the gaps with narratives that already feel familiar to them – like 'it's up to individuals to make better choices'. Explanation is an important way to 'dress' facts rather than expecting them to stand by themselves. It's the difference between stating that vaccines work and showing people 'how' they do and 'why' they are important. One way to simply, but effectively, build explanation into communication is through the use of particular metaphor.

What the field is doing and how this is likely to affect public thinking

Across the field, communication about how vaccines work is largely well-framed. Having accurate and digestible explanations is important for people to feel empowered and to build trust.

One of the main **metaphors** used in the field is to explain **vaccines as 'teachers'**. Teaching metaphors activate ideas about vaccines providing instructions for the immune system, allowing it to recognise, prepare and practise responding to specific diseases. **Battle metaphors** are occasionally employed in the field, though often in combination with teaching metaphors ('learn to fight'), and to a far lesser extent than in previous decades. Rarely, but occasionally, the field uses '**vaccines as medicines**' to explain how vaccines work.

The 'vaccines as teachers' metaphor used by the field is accurate scientifically, and it also activates ideas about productive partnership between the vaccine and the immune system rather than confrontation (as in the battle metaphor). In turn, this leads to less emphasis on risk and avoids ideas about vaccines being 'fool proof'. It also foregrounds why vaccines are a preventative measure and not a reactionary one, and that healthy people should get them. This helps push against the idea that natural immunity and vaccination are in opposition because vaccines help the body learn as part of its natural functioning, and so the vaccine and the body are partners in strengthening immunity. In this vein, emphasising that the body *learns* necessary skills could be even more helpful than emphasising that vaccines teach them.

This teaching metaphor can also add nuance to the commonly held notion that vaccines 'boost' the immune system by emphasising that they provide specific instructions to strengthen immunity for specific viruses that the body is otherwise unprepared to respond to. By focusing on exactly how vaccines strengthen the immune system, the teacher metaphor can reinforce that vaccines are not a general boost to the immune system, so it is irrelevant how 'strong' your immune system is to begin with.

In general, war or military metaphors should be avoided because they can lead to 'fool proof' thinking about vaccine effectiveness by reasoning that a fight is either won or lost, and unless the virus is 'defeated' then the vaccine is not effective or necessary. They also support the idea that 'strong' immune systems don't need 'extra help' or a 'boost'. Secondary battle metaphors such as 'learn to fight' are not unproductive per se, but should be used with caution.

Describing 'vaccines as medicine' is particularly unhelpful because it posits vaccines as an optional, reactive treatment that is only needed if you are already sick, and/or it can trigger thinking of dangerous side effects. Our research found that those who more strongly endorsed the idea that vaccines are medicine were less likely to agree with the benefits of vaccines generally and less likely to be fully vaccinated for COVID-19 (than they were to have any other COVID-19 vaccination status), suggesting that this way of describing vaccines is particularly unhelpful if we wish to increase support for vaccines and vaccination uptake.

Assertions about **vaccine safety** are very common across the field, probably second to 'saving lives', though how vaccines are safe is not always fully explained. When explanations are given, they are about science and procedures including monitoring and testing, often emphasising how slow and methodical the process is. Sometimes such reassurances are linked with explanations of why the fast rollout of the COVID-19 vaccine does not undermine its safety – how the procedure can be done more efficiently in an emergency due to unprecedented funding, rolling review, building on existing research and a global effort.

Sometimes assertions about safety include statements about how many volunteers were involved in testing, including a diverse range of people. This incorporates a trust-building element via the example of other lay people, which will be more or less effective depending on how relatable those people are.

Some communications helpfully emphasise that the viruses in vaccines are inactive, harmless, partial, etc., while others activate unhelpful framing by stating that vaccines 'make us sick', 'contain disease-causing germs', or 'are the real thing' in service of teaching the immune system.

Framing around **vaccine safety** in the field aligns with public thinking in two ways. On one hand, the idea that vaccine effectiveness and safety is proven through extensive testing relies on existing trust in scientific institutions and procedures, which may or may not be present for certain groups and individuals, as discussed above. On the other hand, ambivalence about whether scientists are working for the good of others and are therefore trustworthy can be mitigated by the idea that science and regulations are proven after the evidence has held up over time. Emphasising that 'new' vaccines rely on 'tried and tested' procedures can help. In general, evoking safety will be more effective if it integrates framing about trust that helps people feel emotionally reassured.

Using discussions of safety to introduce communal safety instead of individual safety could tie in to framing about structural access and community benefit instead of choice (see Sections 1 and 4).

Imagery also plays an important role in how vaccines are presented and explained. The field has largely shifted from using imagery showing needles/injections to instead using imagery depicting viruses. Imagery around needles/injections conjure anxiety and activate the unhelpful assumption that vaccines are a type of medication – leading to unhelpful thinking about side effects and activating a frame of individual consumer choice. It is therefore promising to see the move away from such images in the field. Using more neutral imagery, such as visualising viruses, is a more productive approach. Some images both avoid negative needle imagery and activate positive ideas – for example, people with their sleeves rolled up to receive the vaccine, which evokes community solidarity (see Section 4).

What can help

- Use the 'vaccines as teachers' metaphor to explain how vaccines work. This emphasis on a productive
 partnership and gaining useful skills, rather than confrontation, leads to less e
 mphasis on risk.
- Avoid using war or military metaphors to describe vaccines and vaccination.
- Avoid describing 'vaccines as medicine'.
- Move from asserting vaccines are safe to explaining how we know that they are. Do so step by step, using words that signal cause and effect: 'because', 'this leads to', 'this results in', etc.
- Integrate explanations about vaccine safety with efforts to build trust. People will only believe safety messages if they trust where the message is coming from. See Recommendation 2 for ways to address this.
- Use imagery to aid explanation but avoid visualising needles/injections. Consider how imagery
 can support the 'vaccines as teachers' metaphor or encourage more productive associations, such as
 community solidarity.

Further practical recommendations

A good place to start would be making practical information easier to find, including with different language translations and audio or large print versions that are themselves easy to find for those who cannot read standard English type.

There is some amount of translation available within the field, including non-European languages and multiple formats (e.g., audio), but this is very sporadic. The need for more widespread language translation should be emphasised as an access issue, with care taken to avoid harmful stereotypes about non-English speakers being vaccine-hesitant and culturally non-integrated with UK society. For example, labelling translations as 'BAME' (Black, Asian or Minority Ethnic) is an unnecessary conflation of race, ethnicity and language. More generically labelled translations can include British Sign Language and large print

Conclusion

To increase vaccinations in the UK, we need to address the practical barriers that many people still face in getting vaccinated, from the times of day vaccinations are offered to the locations. We need to acknowledge and respond to the structural racism and health discrimination which has led to a lack of trust in medical institutions. We also need adequate funding and infrastructure for national vaccination programmes. Yet, much of the conversation around vaccination rates focuses on vaccine hesitancy, and the news is dominated by stories about the so-called anti-vaxxer movement. This makes the story of vaccination seem like one of division: science v. emotion, pro v. con, us v. them.

As this report has shown, sector communications emphasising individual choice and individual responsibility are eclipsing conversations around access to vaccinations and the structural barriers preventing vaccination. Such individualist framing underlies nearly all communications within the field, which are largely about persuading people to take vaccines using various approaches. Providing people with science-based information and values-driven messaging about collective action are important; but if people face difficulties accessing vaccines, neither is adequate.

Sharing 'facts' also too often eclipses a wider need to build trust, falsely assuming that if people have the correct information, they will make the choice to get vaccinated. This is at its most problematic in the f ield where mythbusting is used, inadvertently reinforcing some of the misinformation that exists around vaccination.

This report has started to put forward practical suggestions for how the field can widen the lens beyond individuals to also talk about the barriers, discrimination, systems and structures that have contributed to lowering vaccination rates, and also build trust. Each recommendation responds to different communications challenges experienced by the field, and it is likely that a combination of solutions will be needed to shift the conversation around vaccines and vaccination in the UK.

Further research will be needed to identify and test which frames will best boost support and action on vaccination, including whether the use of particular values frames, metaphors or explanations are key to shifting the dial on vaccination rates and increasing access to vaccines.

Appendix 1: Research methods note

In collaboration with project partners, researchers generated a list of charities, public health organisations, campaign groups and local/national government institutions working on, and communicating about, vaccination. This process identified the following relevant organisations. Researchers then sampled public-facing communications materials from each organisation's website and social media feeds. All web and social media content was accessed in October and November 2021 and may be different before or after this date range.

- NHS
- NHS Scotland
- NHS Wales
- NHS Northern Ireland
- Public Health England/UK Health Security Agency (UKHSA)
- Public Health Wales
- Public Health Scotland
- Public Health Agency (Northern Ireland)
- British Society for Immunology
- British Islamic Medical Association
- Vaccine Knowledge Project
- Team Halo
- Wellcome Trust
- UNICEF
- Take the Covid-19 Vaccine Campaign #Takethevaccine campaign
- British Red Cross
- Science Media Centre
- Chief and deputy medical officers and other government spokespeople through analysis of speeches/ briefings/social media
- Local authorities an arbitrary selection with a geographical spread across the UK, including councils of Glasgow, Belfast, Swansea, Oxfordshire, North Yorkshire and London

Endnotes

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The FrameWorks Institute is a non-profit think tank that advances the mission-driven sector's capacity to frame the public discourse about social and scientific issues. The organisation's signature approach, Strategic Frame Analysis*, offers empirical guidance on what to say, how to say it, and what to leave unsaid. FrameWorks designs, conducts and publishes multi-method, multidisciplinary framing research to prepare experts and advocates to expand their constituencies, to build public will and to further public understanding. To make sure this research drives social change, FrameWorks supports partners in reframing, through strategic consultation, campaign design, FrameChecks*, toolkits, online courses, and in-depth learning engagements known as FrameLabs. In 2015, FrameWorks was named one of nine organisations worldwide to receive the MacArthur Award for Creative and Effective Institutions.

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