Hi everyone. Thank you so much for joining this webinar and today we're going to be talking about framing antimicrobial resistance. My name is Louisa Tribe and I work in communications in the drug-resistant infections team at the Wellcome Trust.

Ahead of the walk through our research I wanted to give you a bit of context about the project and why welcome has been working in this area. As many of you will know drug-resistant infections is a priority area for Wellcome and our vision is to transform the global response towards stemming the rise and spread of drug-resistant infections.

As part of this we're keen to help drive policy action and increase political prioritization of the issue. We know that the language in the words we use matter for encouraging buy-in from stakeholders.

Our research is showing that the way issues and solutions are presented means that people are more likely to support them or ignore them. So over the last year Wellcome has been exploring the best way to frame drug-resistant infections in order to drive quality actions and increase public support for political prioritisation of this issue.

The project you'll be hearing about today brings together existing research views from within the AMR community and extensive primary research among the general public, and we're really keen to continue working with you and the community on this so please do share your thoughts and ideas for how we might be able to share research findings and any formats or tools you would find helpful. I'll now hand over to James and Jack and the team who's going to talk you through the research and there'll be time at the end of the webinar for any questions you may have. Thank you.

Hello. My name is James Dray and my colleague Jack Luttman, and we'll be going through the results of the research with you today.

So to start, what is framing? One of the things that we are increasingly aware of as we present facts, data and new research findings to audiences of all types is that how something is presented to an audience, what we might call the frame, influences the kinds of choices that they make about how to process that information. What we know is that when people face facts that don’t fit with their worldview they don't change worldview they change the facts and so what we need to do is no longer assume that the facts will always speak for themselves.

We try and find the best possible frame which allows people to start considering the facts and take them at face value. There's been a lot of work that's been done on this in the past, as we've just noted. One of the most interesting pieces of work was in the US by a group who were led by an academic called Baumgartner on lobbying on Capitol Hill and they found that, when trying to influence policy, one of the most important things was just maintaining the attention of the players that they were trying to influence. The advocates, the majority of the advocates lost not because they faced opposition or hostility, but because the issue was seen as tedious, expensive, and there wasn’t enough pressure to overcome other seemingly more important issues. And so the first
challenge that we face with an issue like antimicrobial resistance, which is complicated and difficult enough, and hard for policy makers to understand, is trying to get it to overcome the other millions of issues they face on the tape state basis so they can prioritise it.

Another feature that comes through strongly in this research is that framing issues in different ways can in fact lead to policy change. The most famous example that has been regularly used over the years is the issue of smoking where the facts about smoking were known in the US decades before policy action was finally taken. And that policy action was taken when the frame changed from a debate that was primarily about the smoker and the impact on his or her own health and their freedom of choice in the matter, so a debate about the impact of the smoke on other people, on second-hand smoke and how that might affect others.

And there's a direct correlation between that change in frame and actions starting to be taken on Capitol Hill. The theory of change for this particular project is that this matters for antimicrobial resistance for three reasons.

The first is the idea that in the in the majority of relatively democratic countries in which we work, the idea that and if an issue is prioritized by the public was seen as an issue that the public will prioritize, that that will help but drive up the political agenda and gain the attention of policy makers.

Sometimes that means less that the public need to be actively advocating for it, and more that we need to be able to show policy makers that it's important to the public. But the first part of the theory of change is that there is a link between public prioritization and political action.

The second point is that when policy makers and politicians begin to understand the issue, and when they begin to talk about it and to use the issue that we're talking about, that can also drive policy action. The bureaucrats, and civil servants, and people lower down the value chain, if they see policy makers talking about the issue a lot and explaining it in ways that they understand and that can successfully lead to policy actions.

And the third part of the theory of change was that whereas the AMR community has actually been very successful in ensuring that a few very senior stakeholders have bought into the importance of the issue, there is a need for it to have wider cut through. And this is a need that came from interviews with members of the community and others who found that even if they were managing to get a lot of success with very specific policy makers, there wasn't petering out into the rest of parliament, there wasn’t getting to the finance minister, and so policy action isn't being taken as quickly as it could be.

So the objectives for this project... we'll move on to the next slide... were to try and get different research to establish the most effective ways to talk about antimicrobial resistance that first helps
the public to increasingly understand the problem of antimicrobial resistance, and second persuade them that antimicrobial resistance is something that should be the focus for political action.

06:35

So this research is focused on ways to clearly explain AMR and to encourage broad support for action. It's not behaviour change research in the way that many of you will be familiar with. It's not intended to change individuals antibiotic use. Instead it is about trying to find the best possible language to ensure that the public can put pressure on their elected and unelected representatives take action on the issue.

One question that we were often asked in the run up to this project was that if our focus is on policy makers why not just do all of our research on what policy makers think. And what we increasingly found though was that many of those policy makers don't understand all the science, they are in the same position as many members of the public. So finding a clear, simple and easy to understand explanation was just important for policy makers as much as it was for the public.

Let’s move on to the methodology briefly. this is a very comprehensive piece of work that was undertaken over an 18-month period. As you’ll see on the slide, we began with a thorough investigation of existing data and resources to understand what framing is currently being used and how effective it is. And this was based predominantly on tip-top research.

In the second phase we did in-depth media and social media analysis in key countries to map the conversation about antimicrobial resistance, drug related, drug-resistant infections etc and how is being covered and discussed, who is jumping on what issues, what were they talking about.

After that we had qualitative in-depth interviews with experts and practitioners in the community and asked them about the difficulties that they faced in communicating about antimicrobial resistance and what they thought the most effective tools were at their disposal at the moment. And thereafter we continued to effect a series of public message shifting, but qualitative and quantitative.

08:47

We started with the quantitative survey to identify the best framing messages with our key audiences, and then follow that up with qualitative stage focus groups to refine the best-performing messages in key countries.

If you look at the next slide you’ll see briefly the scope of actors. So that public message which I just alluded to but played in seven countries: the United Kingdom, United States, Germany, Japan, India, Thailand and Kenya. And these countries were chosen to ensure both that there was a broad range of perspectives on the issue, and to make sure that we were covering off both views from the global North and the global South. There were countries selected to ensure that we covered key hubs of international influence, major contributors to global antibiotic consumption, and also countries that were notably improving or worsening the levels of antibiotic.

We should state from the start that it was not possible to do this in every country in the world. And many of you will note that there are some countries where we were not able to test, but this is the
most comprehensive study that we've seen of its kind and we're keen to carry on doing more research over the years.

10:07

But we feel that we've got a good spread of countries from both the global North and global South that provide us with a good overview of differences of opinions between markets. And we conducted a total of 18 focus groups and the survey was answered by over 12,000 respondents, which is a very robust support indeed.

I'll hand over to my colleague Jack who will now take you through the five principles.

Thanks, James. But before we go through our key findings and recommendations, we just wanted to run through these slides which just outline where we are today and outline some of the aspects of the challenge that we're dealing with when communicating about antimicrobial resistance.

So our research shows that experts and practitioners working on antimicrobial resistance feel that the way this issue is currently communicated is problematic. And there's an extensive basis of evidence from research with the public which shows that there indeed is a problem here. Just to run through them, some of these issues that we've identified.

The first issue to highlight is that multiple terms are used to describe this issue. So we see that different experts and practitioners working on antimicrobial resistance talk about the issue using multiple different terms, for example antimicrobial resistance, drug-resistant infections, superbugs, antibiotic resistance.

11:31

You'll be familiar with many of these terms and this is also the case in the media. As is shown on the slide, you'll see on the screen now which charts the terms used in the US, UK and German media, and just shows the range of terms that are used on a regular basis. And I think the impact of using such a range of terms is that it makes it difficult for the public to recognize this as one single issue as they hear it presented as multiple different things.

Secondly, there's a wide range of frames that are used to explain the issue of antimicrobial resistance and to describe its impact. Our analysis of existing research in communicating this issue are interviews with issue experts and our analysis of media and social media coverage. The issue shows the range of frames that are used. The slide you'll see on the screen now shows a selection of media headlines which just illustrates the range of frames that are used.

These range from apocalyptic headlines which is talking about the antibiotic apocalypse or returning to the dark ages of medicine, referencing the number of deaths, talking about who it affects, whether that be children or the vulnerable or the elderly, talking about the impact in terms of its economic impact, or perhaps its impact on medical systems. Or sometimes talking about it in comparative terms so comparing it, for example, to climate change. So again, this is another challenge that we're dealing with. So many different frames are being used to talk about this issue.

The third issue I want to highlight is the disjointed media coverage. So the way that antimicrobial resistance is covered in the media can actually be quite unhelpful, I think, in driving public
understanding. The slide that you’ll see on the screen now shows a map of UK media coverage over a 12-month period. And for those who aren’t familiar with this sort of chart, essentially each dot on this slide shows a single news story. And similar stories are color-coded and clustered together. But here we see a range of different clusters, each representing a different theme in news coverage.

And one of the interesting findings when we analyse this map is the coverage is typically driven by specific disease areas and outbreaks. And this is the case in the UK, but also in the US and Germany. And while this isn’t unusual in global health, it does mean the coverage of antimicrobial resistance often appears disjointed and fragmented when seen only through a disease or outbreak specific lens. And again, that makes it difficult for the public to make connections between different stories on this issue and to connect the different aspects of the issue.

And then the last issue I want to highlight before we move on is that our analysis of social media conversation shows the discussion of antimicrobial resistance tends to be quite specialist conversation on Twitter and social networks. The conversation in US is driven by institutions, and while individual users drive more activity in the UK and Germany, they too tend to be from a specialist or medical background, including pharmacists, infection specialists and microbiologists.

In addition, as is shown on this chart, the overall volume of conversation about antimicrobial resistance is relatively low when compared to other more high-profile issues such as climate change. The result of this is that the conversation is not a mainstream one or one that many social media users beyond the experts and practitioners working on the issue are likely to engage with.

So now we would like to take you through some of the key findings from our research. And I think it’s worth saying up front that one of the key findings is that there are universal themes that resonate effectively across all of the countries that were included in this study.

This means that we can identify overarching principles to be used when communicating on antimicrobial resistance. And we identified five key principles to use when communicating on this issue.

So these shown on the slide are the five principles that we have identified. And we’ll now take you through each of these and some of the evidence that they’re based on. We are encouraging experts and practitioners working on antimicrobial resistance to use these principles to inform their public communications wherever possible.

These principles should be used in combination to maximise their impact. And together, by using this language, our communications can help increase public understanding of this issue and encourage more action.

So the first principle is that we should frame antimicrobial resistance as undermining modern medicine. As our social media and media analysis shows, as I just talked through, communications around AMR are often focused on specific disease areas. Our research shows that this is not helpful
in encouraging the public see the urgency of taking action against AMR. When it's seen as one of several health issues, AMR's seen as being serious but not a priority to be addressed. Other health issues such as cancer, obesity, mental health, often feel more urgent and personally relevant to the public.

So to overcome this we should position AMR as a cross-cutting threat. And the most compelling frame in our research was the undermining of modern medicine by antimicrobial resistance. This frame helped the public understand the breadth of the impacts of the issue that is currently having and that it potentially could have in the future.

It also helps reposition the issue from being one comparable with other specific disease priorities one with relevance across a range of different priorities, the result being that antimicrobial resistance was considered not only to be serious, but an issue requiring more urgent action.

Effective communications about antimicrobial resistance need to demonstrate how it's a cross-cutting threat across all of medicine, beyond specific disease areas, which sets back and undermines treatments that we've come to rely on. In our public testing, as is shown on the slide here, the message focused on this concept of modern medicine being undermined resonated widely.

And those are the messages that are highlighted in a red box on the slide. And this was a core concept that emerged as a compelling component in several of the messages that we tested, as is shown on this slide. So a message that talks about how people are dying once again from tuberculosis, to apocalyptic framing messages that describe how currently treatable infections would kill once again and also messages that focus on routine surgery and common diseases becoming more dangerous once again.

18:17

So that was the core component that meant these messages were particularly compelling. So our qualitative research, our focus groups highlighted two key reasons why these messages are particularly compelling.

The first is this concept of going back in time and undermining medicine really resonates, and while the sensation is attained in some of the more apocalyptic messaging was a cause for some scepticism and can actually sometimes reduce credibility. The core idea that we were communicating, of treatable infections and injuries killing once again, was particularly compelling. And this concept helps people understand the need for action on this issue.

And then secondly, the idea of setting back progress can be made more powerful by illustrating the breadth of the impact of AMR, so slicing multiple examples of the diseases or procedures affected helps to increase the impacts by framing antimicrobial resistance as a cross-cutting threat with a far-reaching impact.

In contrast, if messaging focuses on a single disease or procedure, this doesn't convey the same breadth of impact. And also, by highlighting the broad impacts of antimicrobial resistance, we can tap into the standing of other disease areas, from cancer to diabetes to HIV. And by citing the impact of AMR on several of the public's existing health concerns in this way, this helps us communicate the need for action to be taken.
So as I say, when communicating the impact of antimicrobial resistance or modern medicine we should illustrate our arguments with examples of routine procedures, common diseases and illnesses that could be affected by this issue. In order for the message to resonate, those examples that we use should be tailored to ensure that there are most relevant to the specific audience being addressed.

So we need to tailor examples based by country and by demographic group. Say, for example, using examples that will feel relevant to parents, the elderly men, women or other specific demographic groups in terms of the examples that we should give I think. We recommend giving examples of the most common procedures, diseases, illnesses or injuries in the country where we're communicating or among the specific groups that we're communicating with. And the idea is this will maximize the potential relevance to our audiences.

20:46

The second principle is that we need to give simple explanations of antimicrobial resistance. So our qualitative research shows the importance of helping our audiences understand resistance, showing that having an understanding of the issue is key to driving support for action on the issue.

So we tested a range of messages that explain what is happening with antimicrobial resistance. These range from quite short, punchy, soundbite-type explanations through to more factual explanations, albeit still using basic layman's terms. These messages are shown at the bottom of the chart on your screen.

And we found that the factual explanations which explain antimicrobial resistance in simple and clear terms were most effective in terms of helping the public understand the problem and also for increasing the support for action. This is shown on this chart. The two explanations in yellow at the left-hand side of the chart were the most effective, both are simple explanations of resistance.

And this preference for these simple explanations was consistent across all of the demographic behavioural and attitudinal groups surveys. But while there is demand for a succinct explanation of antimicrobial resistance, this does not extend to demand for detailed scientific explanations.

22:12

Those messages should be clear, succinct and easy to understand, and we need to avoid scientific explanations and jargon. As an example, as is shown on the slide on your screen, our public testing shows that commonly used terms like antimicrobial or microbes do not resonate. So survey findings clearly showed lower levels of awareness of the term microbes across countries in relation to bacteria or germs. And even though four in five said they were aware of the term, our qualitative research reveals that this awareness often does not actually equate to knowledge or understanding.

So there's some awareness, but not actual understanding of that term which is significantly lower. A consistent theme across the qualitative research was that messages that are clear, succinct, and easy to understand are most popular, and I think more broadly this finding supports other communications research and how to communicate complex topics effectively.
A key aspect to explaining resistance communicates that antimicrobial resistance is caused by bacteria developing resistance rather than individuals. So our quantitative research show that there is a widespread misconception that resistance occurs when the body becomes resistant, and this was particularly the case in the global South countries included in our research. This is problematic as it leads to people thinking that they can avoid resistance by not taking antibiotics or by taking them correctly.

Holding this misconception leads to a thought process which was set out here on the slide, at the top of the slide next to the yellow box. It leads to a thought process that means individuals view antimicrobial resistance as something that can be avoided through their own use of antibiotics. It’s therefore seen as an issue that does not personally affect them and as a low priority overall.

However, as you’ll see by the green box at the bottom of the slide, explaining resistance and that bacteria become resistant, not individuals, is critical for driving public support for action on antimicrobial resistance. Understanding that bacteria become resistant helps people appreciate the antimicrobial resistance is not something that can be avoided by their own personal behaviour and prudent use of antibiotics.

Our research showed the people with this correct understanding of resistance approached antimicrobial resistance with a different thought process. They can then see that everyone is at risk, irrespective of their own use of antibiotics and also that it's a global threat. This understanding, in turn, helps drive prioritisation of this issue. And when explaining antimicrobial resistance, including the part that human activity is playing in accelerating this issue is important, talking about overuse of antibiotics in humans and animals helps give a sense of scale and breadth to the issue.

When communications do not include the role of human activity in accelerating AMR, explanations can make the issue seem inevitable or feel defeatist. And if we only focus on the scientific process, it also lacks a sense of agency.

As this chart shows, concepts of overuse, is a simple one, but a simple one that resonates effectively with the public and actually is more effective than other terms such as inappropriate use, which is less effective. And terms such as inappropriate use can often feel as more vague or ambiguous or sometimes even judgmental.

An important note here is that when we talk about overuse we need to be careful to talk about overuse in the right way. So it’s a concept that can be interpreted in different ways. Where there are misconceptions, for example, that the individual becomes resistant, this idea of overuse is often misinterpreted from an individual perspective, so interpreted in terms of individual overuse. In order to avoid this outcome, we need to clearly reference our collective overuse of antibiotics.

The third of our five principles is that, in order for the public to see antimicrobial resistance as an issue that needs to be addressed, we need to emphasise that this is a universal issue and that anyone can be affected.

So a major obstacle to public support for action on antimicrobial resistance is the lack of a sense of personal jeopardy. This is particularly pronounced among those who hold the misconception that
resistance occurs when an individual develops resistance as opposed to bacteria which is, as I said, is something that means people can assume they can avoid this issue, but it’s also seen among those with a with a better understanding of the problem.

Research shows a key factor in increasing support for action was to communicate that everyone could be affected. But simply citing that everyone is at risk is not sufficient as this can seem too generalized and also too impersonal. So stating that everyone is at risk, which conveys that sense of breadth, therefore needs to be combined with the personal.

For example, by saying we’re all at risk including, you, your friends, your family, which is important to increase the personal relevance of our communications. In contrast, focusing on the impacts of antimicrobial resistance on specific groups of the population can have a limiting effect on the power of messaging by decreasing that sense of personal relevance.

In our public research we tested messages that articulated the impact of resistance on different groups, such as vulnerable people or children or the elderly, and feedback in our qualitative research showed that such messages focusing on specific groups, although they’re credible, they do tend to reduce that sense of personal relevance, the individuals themselves and therefore in turn their support for action on this issue.

A key part then of making antimicrobial resistance feel like an issue that can affect everyone is to communicate in relatable terms. So this is important because most people either don’t know anyone affected by antimicrobial resistance, or don’t immediately connect specific issues, like hospital superbugs, with the broader issue.

Our public research shows that messages and news articles that provide the human face of antimicrobial resistance are more effective, and by contrast, numbers and statistics generally resonate less strongly with the public as headline messages. The chart here on your screen shows how messages focusing on the numbers of deaths, shown by the yellow bars, highlighted in red boxes, are less compelling than messages that focus on the impact on individuals which is shown by the blue bars.

However, while statistics and data are less effective as headline messages, our qualitative research show that there is demand for such information but this should be used more as supporting evidence, to provide context and scale rather than being the primary focus of messaging.

The fourth of our principles is that we should focus on the here and now. The current communications around antimicrobial resistance often focus on projections and catastrophic warnings, particularly when talking about the impact issue.

We tested two common examples of this sort of language: the terms antibiotic apocalypse and a message that talked about taking us back to the dark ages of medicine. And on the slide here you’ll see some of the direct quotes, verbatim quotes, from the focus groups in response to these messages. These messages actually tested quite well in our quantitative research, but when
explored in more detail in the qualitative research, feedback showed that these messages can be quite something of a double-edged sword.

On the positive side, they actually are quite effective at capturing attention and conveying a sense of urgency. However, the catastrophic language referring to an apocalypse or the dark ages can reduce the credibility of the messages, with the public often seeing them as sensationalist and overly exaggerated, which in turn leads to scepticism and ultimately undermines the impact of the message.

These terms were frequently referred to in qualitative research as being typical of clickbait headlines. Many communications about antimicrobial resistance also focus on projections, focusing on the economic or human impact by 2030 or 2050 or particular dates in the future.

Such projections don’t convey the necessary sense of urgency that we need to communicate. These sorts of projections lead to people thinking that antimicrobial resistance is an important issue but crucially not one that needs immediate action. And also projections often reference numbers and statistics which, as I just said, generally resonate less strongly with the public.

Talking about future impacts can also be undermined by the belief in the ability of scientists to solve such problems. The clear theme emerging from the qualitative research was that, in order for the public to see the need for action on this issue, they need to understand the effects of antimicrobial resistance now. We need to make it clear that antimicrobial resistance is currently having a significant impact and that this impact will become increasingly severe if action isn't taken.

The fifth principle and a key finding of the research was that we can boost the impact of communications and antimicrobial resistance by framing the issue as one that is solvable.

The quantitative research included testing the impact of adding a solvable frame for messages. The message antibiotic resistance is one of this generation’s greatest problems was tested in isolation. And that’s the bar that’s highlighted in the red box on the right-hand side of the chart. But it was also tested with the addition of text describing the problem is being solvable, text saying we can make a difference if we take action now. And that’s the bar shown on the left-hand side of the chart.

And as this chart illustrates, the addition of a solvable frame had a significant positive impact on the effectiveness of the message in increasing support for action on antimicrobial resistance. In fact it actually increased the resonance of the message by ten full percentage points, which is a significant improvement in terms of how compelling this message is. And this was then supported by qualitative research which showed that positioning the problem as solvable encourages engagement with the issue and gives cause for optimism.

Essentially this prevents the problem from appearing to be an intractable issue, which can often lead to simply disengaging or dismissing an issue. But I think there is an important caveat here, that when we frame the issue as solvable we also always need to be clear about the specific actions that are needed. And again, on the slide here are some quotes taken from the focus groups when we talked about this being a solvable issue.
In the qualitative research, when we told participants that the issue is solvable, they immediately wanted to know what specific actions were needed and who needs to take them. And this was a consistent theme across all of our focus groups across the seven countries. In fact, we found that framing the issue as solvable without articulating a call-to-action can actually have a detrimental effect, and can even risk undermining the urgency of the problem.

It can lead to assumptions that it's already being addressed and prompt a sense of complacency amongst our audience. So we should always try to be clear about what specific actions are needed.

So that finishes our run-through of our five recommendations. A few more slides now before we open to the Q&A. So based on our findings and the principles that we just ran through, we then put together what the research shows us to be the best framing for antimicrobial resistance. This is broken down into two parts.

So a headline frame, which is essentially the most effective hook for capturing people's attention on this issue and should act as a platform for further communications. And then a long-form frame just how to talk about antimicrobial resistance beyond the headline in order to drive public understanding and support for action on the issue.

We'll show you these shortly on the screen, but it's worth just saying that these are not prescriptive, and we're not saying that communicators have to use these exact words in this way. But this is an example of how to use the principles in a practical sense. And both are set out in our full report for you to read at your leisure.

So this is the headline narrative which you can see on your screen. I won't read it to you now but I will just highlight again why this is effective, referring back to our five principles. So this short statement makes sure that we emphasise that this is a universal issue. It frames antimicrobial resistance as undermining modern medicine and, importantly, it focuses on here and now, making this feel like a current problem.

Then on the next slide we have the longer, long-form narrative and, again, I won't read this out to you. But you can see it on the screen and in the report. In terms of why we think this narrative is most effective especially it opens with a straightforward explanation of resistance using the sort of language that tested most effectively in our research.

It also then positions antimicrobial resistance as undermining modern medicine which you'll see in the third paragraph. And includes a range of example procedures and illnesses that will become more dangerous. And by including that range of examples, that helps boost that feeling of the breadth of the impact and also increases the potential relevance to our audience.

It focuses on the here and now, those states that people are already dying from antimicrobial resistance, and also that more lives are in danger. It also positions antimicrobial resistance as an universal issue affecting everyone. So in this statement we explicitly state that this is an issue that can affect everyone, and we're all at risk, which we'll see at the end of the fourth paragraph on this
slide, that drug-resistant infections can affect anyone, we're all at risk of infections from drug-resistant bacteria. And then just lastly, in the final paragraph, it encourages action now in line with the fifth of our principles. So by stating we can solve this problem if we step, if we take action now.

As a final point before we finish the presentation and open up the Q&A, we just wanted to share with you details of where you can access the report and other resources. So these are hosted on the Wellcome Trust website in the reports section, and we've included the address on the slide you should see on your screen now. And there are there a range of documents here that you can download, including the full report of the findings which sets out those five principles that we've gone through, as well as including the headline and long-form narrative.

There's also an executive summary of the findings and, additionally, we have a framing toolkit. And this is intended as a practical guide to help communicators apply the principles in their own communication, so it includes do's and don'ts and examples of how the principles can be used practically.

On that website we've also got the appendices from the research, which include more detail based on the methodology and the findings in greater detail. And just lastly, there's also content they're designed to be shared on social media.