What is public dialogue?

And other frequently asked public dialogue questions

This Sciencewise briefing paper collates evidence and experience from past dialogue projects to answer a number of frequently asked questions:

FAQ 1: **What is public dialogue?**

FAQ 2: **When should and shouldn't public dialogue be used?**

FAQ 3: **Is public dialogue useful?**

FAQ 4: **Does public dialogue make a difference?**

FAQ 5: **Can the public contribute meaningfully?**

FAQ 6: **Is public dialogue worth the cost?**

FAQ 7: **How many people need to be involved?**

FAQ 8: **Do the public want to be involved?**

The Sciencewise programme enables policy makers to develop socially informed policy, with a particular emphasis on science and technology. We do this by supporting government bodies to commission deliberative public dialogue. Our support includes 50 percent co-funding, expert advice and guidance.

With thanks to Tim Hughes for the research and drafting of this paper.

FAQ 1: What is public dialogue?

Public dialogue is an approach to involving citizens in decision making. Dialogues bring together a diverse mix of citizens with a range of views and values, and relevant policy makers and experts, to discuss, reflect and come to conclusions on complex and/or controversial issues.

Introduction

What is public dialogue? How is it different from other forms of engagement? Are there other definitions of public dialogue?

Dialogue is at its heart about democracy and good governance. It starts from the position that:

- People should be able to influence the decisions that affect their lives.
- Good policy making requires engagement with the public and stakeholders to ensure the input of the widest possible range of knowledge and views, and needs to go with the grain of the public's views and values.

For example, Sciencewise public dialogues bring together members of the public, policy makers, scientists and other expert stakeholders to deliberate and come to conclusions on national public policy issues involving science and technology.

How is dialogue different from other forms of engagement?

Compared to other forms of engagement, public dialogues typically engage a relatively small number of citizens directly, but generate a high level of discussion and outputs. Public dialogues often sit alongside other forms of public engagement, such as public meetings, written consultations (offline and online), focus groups and surveys (see FAQ 7: How many people need to be involved?). These other forms of public engagement include some of the following elements, but public dialogue places a particular emphasis on them. Public dialogue is:

- **Informed** – participants are provided with information and access to experts;
- **Two way –** participants, policy makers and experts all give something to and take something away from the process; dialogue is neither solely about informing the public nor extracting information from them;
- **Facilitated –** the process is carefully structured to ensure that participants receive the right amount and detail of information, a diverse range of views are heard and taken into account and the discussion is not dominated by particular individuals or issues;
- **Deliberative –** participants develop their views on an issue through conversation with other participants, policy makers and experts;
- **Diverse –** participants tend to be recruited to ensure they represent a diverse range of backgrounds and views (participants are not self-selecting);
- **Purposeful –** dialogue engages the public at a stage in a decision-making process where the policy can be affected;

- **Impartial –** public dialogues are often convened, designed, delivered and facilitated by independent individuals or organisations to help ensure the process is not biased in favour of a particular outcome; and
- **Expansive –** public dialogue opens up conversations rather than closing them down.

The majority of public dialogues in the UK are done using mixed or bespoke methods designed by their facilitators, but there are also some "off-the-shelf" approaches; for example:1

- **Citizens Juries** – these consist of a small panel of citizens (typically 12 to 16) who discuss and deliver a "verdict" on an issue (like a criminal jury), having received information and heard from expert "witnesses".
- **Citizens' Summits** – these are large scale events (typically involving between 500 and 5000 people) that use communications technologies to facilitate discussions.
- **Citizen Advisory Groups** – these involve members of the public (typically 10-30) sitting on a committee, which meets over a couple of days as a one-off event or regularly over a longer period of time, to inform and advise decision making.

Other definitions of dialogue

Sciencewise has a particular approach to public dialogue, as set out above, but definitions of public dialogue vary between organisations and practitioners, with some taking a broader view of what dialogue encompasses. Research Councils UK (RCUK), for example, gives this broad definition of public dialogue:

"Dialogue, is generating debate and interaction between individuals and groups and creating a climate where people discuss scientific issues in the way in which they discuss other issues of public and social policy. This dialogue may not lead anywhere in terms of decision-making, but it is stimulating interest in, and awareness of, issues. Scientists may be talking to the public, the public may be talking to each other, there may be television and radio programmes, web chat sites, etc. with no end in sight other than that science becomes just another facet of life, rather than
something different and difficult." (RCUK)[2]

This briefing paper focuses on Sciencewise's approach to dialogue, with its direct link to policy making. Box 1 provides an example of a Sciencewise funded dialogue.

Box 1: Case study - Dialogue on Hybrid and Chimera Embryos for Research[3]

The use of hybrid and chimera embryos for research has the potential to lead to new treatments for diseases for which there is currently no effective cure, but raises some profound moral and ethical issues. The Human Fertilisation and Embryology Authority holds the responsibility for regulating this research and making the decision on whether the use of hybrids should be allowed. Before making this decision, prompted by two research proposals involving the use of hybrids, the HFEA was keen to explore how the public 'balanced the ethics, risks and benefits of mixing human and animal genetic material.'[4]

The overall consultation process included four ways of eliciting public views: an open public meeting, an opinion poll, a formal written consultation and a deliberative dialogue. The deliberative dialogue was intended to 'explore and understand various public perceptions, motivations and attitudes to creating human-animal embryos for research.'[5]

The first stage of the dialogue process involved 12 small discussion groups in six cities in the United Kingdom involving a total of 104 participants recruited to represent a diverse public. Participants in these groups were introduced to the subject area and initial reactions were gathered. The second stage of the dialogue process involved a full-day workshop with 44 participants from the original set of workshops. These participants were randomly selected and then reviewed to ensure a representative sample. This stage sought to understand the views and opinions of participants in more detail. It included a diverse set of expert speakers who illustrated the different issues and arguments.

The findings of the public dialogue supported the HFEA in its decision-making process. The HFEA decided, 'after careful consideration of the evidence gathered through the public dialogue [...] that cytoplasmic embryo research should be allowed to move forward, with caution and careful scrutiny. In addition, any specific applications for licences to carry out such research had to demonstrate, to the satisfaction of the HFEA licence committee, that the research project
was "both necessary and desirable". These caveat directly related to public concerns expressed in the dialogue.'6 Following this decision, the HFEA granted licenses to researchers in two UK universities to carry out research using hybrids and in 2008 the Human Fertilisation and Embryology Bill received Royal Assent, allowing the creation of hybrid embryos for research.

The success of the dialogue encouraged the HFEA to make greater use of public dialogue in future, as well as helping policy makers to develop further their plans for improving their communication with the public on the issue in future. In addition, the process led participants to trust more that the HFEA would take notice of public views and increased the willingness of participants to get involved in similar events in future.

FAQ 2: When should and shouldn't public dialogue be used?

Public dialogue is suitable for understanding and taking account of the public's views to inform a decision, particularly when that decision involves complex issues, requires difficult trade-offs to be made, or needs the support of others to implement. However, it is not suitable when crucial decisions have already been made or engagement cannot realistically influence the decision- or policy-making process.

Introduction

When should and shouldn't public dialogue be used? In what situations is public dialogue suitable? Under what circumstances isn't public dialogue suitable?
Public dialogue, with its commitment to in-depth and informed deliberation, can make an important contribution to decision and policymaking processes (see FAQ 3: Is public dialogue useful?).
However, like all approaches or methods, public dialogue is not appropriate all of the time, and there are certain conditions under which it should never be used. It is as important to understand when public dialogue should not be used as when it should be.

When is public dialogue suitable?

Involve's deliberative public engagement principles state that public dialogue is suitable when:

- 'policy or decision-makers are keen to listen to and take account of public views, as a contribution to more robust decisions based on a deeper understanding of public values and attitudes on the issues;
- the decision, policy or service in question involves complex issues, uncertainty or conflicting beliefs, values, understanding, experience and behaviours; or where one viewpoint might otherwise dominate;
- the decision will require trade-offs between differing policy options, and participants working together can explore in detail the implications of alternatives to result in a better- informed decision; or
- the decision-maker cannot make and implement a decision alone; there needs to be buy-in from others.' (Involve)[7]

When should public dialogue NOT be used?

On the other hand, Involve's deliberative public engagement principles sets out two conditions under which public dialogue should not be used:

'Deliberative public engagement [such as public dialogue] should not be used:

- when crucial decisions have already been made; or
- if there is no realistic possibility that the engagement process will influence decisions.' (Involve)[8]

Public dialogue can only be effective and sustainable if citizens trust the process and believe that their contribution is heard and will make a difference (see FAQ 8: Do the public want to be involved?). Recent in-depth research into how and why people participate has shown the damaging effects experiences of bad engagement can have on an individual's likelihood of becoming involved again and their trust in an institution.[9]

It is important to understand the strengths of public dialogue, compared to other approaches and methods. For example, public dialogue methods are not, with a few exceptions, suitable for involving large numbers of people (which methods such as public meetings, surveys and written consultations are more suited to). They do not typically seek to produce absolute numbers (such as the proportion of the population who would agree with something), but rather look to explain in depth what different groups feel about issues and why (see FAQ 7: How many people need to be involved?).

Guiding principles

Sciencewise has a formal set of guiding principles that the public dialogues on science and technology it funds are required to meet. The principles seek to ensure that:

- 'the conditions leading to the dialogue process are conducive to the best outcomes (Context)
- the range of issues and policy opinions covered in the dialogue reflects the participants' interests (Scope)
- the dialogue process itself represents best practice in design and execution
- (Delivery) the outputs of dialogue can deliver the desired outcomes (Impact)
- the process is shown to be robust and contributes to learning (Evaluation)' (Sciencewise guiding principles)[11]

Regarding the context and scope, Sciencewise dialogues must:

'(1) Context

- Be clear in its purposes and objectives from the outset Be well timed in relation to
- public and political concerns
- Commence as early as possible in the policy/decision process
- Feed into public policy – with commitment and buy-in from policy actors
- Take place within a culture of openness, transparency and participation with
- sufficient account taken of hard to reach groups where necessary

- Have sufficient resources in terms of time, skills and funding
- Be governed in a way appropriate to the context and objectives

(2) Scope

- Cover both the aspirations and concerns held by the public, scientists in the public and private sector, and policy makers
- Be focused on specific issues, with clarity about the scope of the dialogue. Where appropriate we will work with participants to agree framings that focus on broad questions and a range of alternatives to encourage more in-depth discussion. For example, we might start by asking, “How do we provide for our energy needs in the future?” rather than starting by asking “should we build new nuclear power stations?”
- Be clear about the extent to which participants will be able to influence outcomes. Dialogue will be focused on informing, rather than determining policy and decisions
- Involve a number and demographic of the population that is appropriate to the task to give robustness to the eventual outcomes’ (Sciencewise guiding principles)[12]

FAQ 3: Is public dialogue useful?

Public dialogue has been shown to have wide ranging benefits for policy makers and experts, from understanding public opinions, values and knowledge to developing better relationships with stakeholders, and from increasing public trust in organisations and science to making policy more robust and credible.

Introduction

Is dialogue useful? Does it add to policy makers' and scientists' expertise and knowledge of an issue area? Is it more effective than other ways of engaging the public? Does "public opinion" have a place in decision-making processes?

The evidence to date, collected through evaluations of public dialogues, shows public dialogue to have been useful to both policy makers and experts. In fact, participating in a public dialogue has transformed a number of initially sceptical policy makers and experts into advocates of public dialogues.

> "It is proof that this sort of thing can work ... It has been shown to some key high-level people ... who were sceptical, but willing to see what it can do. I think it has started to show them what it can do." (LWEC partner, on Living with Environmental Change dialogue)[14]

That said, for dialogue to be useful, experience has shown that it must have a clear and well defined purpose, be tailored to the specific circumstances of the issue area and decision-making process, and be well designed and facilitated (see FAQ 2: When should and shouldn't public dialogue be used). Where these elements are present, evaluations have found dialogue can have a number of benefits to policy makers and experts.[15]

How does dialogue benefit policy makers?

Many policy makers have identified the practical value of public dialogue in creating better policy through providing them with 'direct access to the knowledge, experience, views, priorities and values of the public', and helping them to understand why the public hold the views they do.[16]

Policy makers have reported the benefit of directly hearing and feeling the strength of public views on issues through a process that goes beyond people's "knee jerk reactions".

> "I felt that it successfully dissected the strands of opinion, highlighting the differences between informed opinion and instinctive responses in the general public." (HFEA member, on Hybrid and Chimera Embryos for Research)[17]
>
> "If we hadn't had such a long period of discussion we would have only had surface level impact: we would only have had the knee-jerk reactions we got at first. Also the participants wouldn't have spoken to and learnt from each other." (Policy maker, on Industrial Biotechnology dialogue)[18]

"One of the points about the dialogue process is you get the individual stories and the individual cases, which actually do make the point much better than summarised data." (Stakeholder, on Ways to Wellbeing dialogue)[19]

The usefulness of public dialogues is best represented by their impact on policy (see FAQ 4: Does dialogue make a difference?). Policy makers who have participated in public dialogues have said that policy is better as a result of dialogue because:[20]

- **Policy is more socially informed**, making it more robust and credible with less chance of negative social impacts. The Hybrid and Chimera Embryos for Research dialogue, for example, gave policy makers at the HFEA confidence in their final decision (on whether hybrid embryos should be allowed for research purposes), 'as it accorded with informed public views and there was also a rich understanding of why people held the views they did.'[21]
- **Policy is more publicly acceptable**, because it is 'developed with an understanding of how and why the public is likely to react, where they will draw the line, where are the issues of conflict and consensus, and what the public suggest will and will not work in practice.'22 The Nanodialogues, for example, led the Environment Agency to revise its approach to regulating nanoparticles in the environment as a result of listening to the recommendations of public participants.[23]
- **Policy is more cost effective in the long term**, because the likelihood of future unforeseen conflict is reduced and final decisions are easier to implement as they are based on the best possible knowledge from a range of sources (see FAQ 6: Is public dialogue worth the cost?).

"Public dialogue can be particularly valuable on controversial issues like drug use, where tabloids can have huge influence and there can be greater difficulties and quite troubled political waters. This is where it is essential to get public engagement." (Policy maker, on Nanodialogues)[24]

"Well it definitely helped the Authority come to a robust decision as it gave in-depth knowledge of public opinion and the reasoning behind it. With questionnaires you don't get the rationale behind it." (Policy maker, on Hybrid and Chimera Embryos for Research dialogue)[25]

"It has influenced us internally here by seeing first-hand what the public thinks the issues are and the misconception, misinformation and misunderstanding that is out there. This has helped us to realise that there is a lot of work that needs to be done if we want to move this thing forward which is helpful... to see, to hear the public's views is quite eye opening sometimes." (Policy maker, on Industrial Biotechnology dialogue)[26]

"I think the results were helpful to NERC [National Environmental Research Council] in its decision-making on geoengineering. [...] I think there's enough in there to say the things that people are really worried about are this, this and this, so if you're going to go ahead and develop these things or you are going to discuss them politically, then here's what you need to worry about and here are some recommendations about how that's communicated." (Stakeholder, on Geoengineering dialogue)[27]

Beyond the value to policy making, policy makers have cited a number of other benefits from public dialogue; among other things, they have:[28]

- **Developed better relationships with stakeholders**. The dialogue on the Forensic Use of DNA, for example, 'provided a node through which a variety of relevant actors have been linked (e.g. individual citizens, professionals working in various related disciplines, HGC, government officials, public dialogue specialists, research bodies and academics)'[29] and Sciencehorizons led to the establishment of six new collaborative initiatives among stakeholders.
- **Developed better relationships with public participants**. Effective public dialogues, such as Big Energy Shift, Drugsfutures, Nanodialogues and Sciencehorizons, have helped to develop mutual trust and confidence between public participants and institutions. A departmental project manager involved in the Sciencehorizons dialogue commented that public dialogue 'improves and strengthens relations between citizens and state – a relationship that needs strengthening.'[30]
- **Enhanced profile and reputation by demonstrating good practice**. For example, the dialogue on the Forensic Use of DNA was identified as good practice by the House of Lords Constitution Committee and raised the profile of the Human Genetics Commission through media coverage of the citizen inquiry's findings.
- **Improved their future communications**, through better understanding the interests, concerns, knowledge and values of the public. For example, a policy maker involved in the Big Energy Shift dialogue said that, 'It gave me an idea of how delivery methods actually will change the impact of what's being said – it was quite clear that this message may as well have been quite a new message on the seriousness of climate change [...]'[31]

"It reinforced that [public engagement] is a good thing, and that we need to carry on with it against the odds and the opposition." (Stakeholder, on Hybrid and Chimera Embryos for Research dialogue)[32]

How does dialogue benefit experts?

Experts also cite a number of benefits from participating in a public dialogue; among other things, they have:[33]

- **Developed new skills, experience and confidence**, particularly in communicating complex ideas to lay audiences. For example, a scientist involved in the Nanodialogues commented that 'It has made me think much more carefully about how we present this work ... it has made me take a step back and consider how we think about this and how I can explain why we should be doing it.'[34]
- **Enriched their own work and research**. Scientists have reported that 'this interaction with the public [...] in an informal, safe environment in which ethical issues can be explored, helps them test their own assumptions about the issues, helps to improve the transparency and scrutiny of their work, enables them to ask better questions of and within their own research, and stimulates ideas for new research of public value.'[35]

"Many of the scientists (me included) who have been involved with public engagement, however, have reported that the experience is very positive. In addition to being reminded of the generally high standing of scientist and scientific enterprise in our society, they are prompted to re-examine unspoken assumptions and clarify their aims and objectives." (Expert, on Nanodialogues dialogue)[36]

"It helped me test my views and adjust them. I took notes all the time." (Expert, on Drugsfutures dialogue)[37]

"I gained a lot from listening to the views of very diverse range of members of the public who, by and large, were very supportive of us but had a few areas where they weren't certain. I think it has allowed me to sort of set my barometer at a more appropriate point." (Expert, on Stem Cell Dialogue)[38]

Perhaps the best indication of the usefulness of public dialogue is that a number of policy makers, scientists and organisations have begun to embed it into more of their work (see FAQ 5: Can the public contribute meaningfully?).

"I was always quite positive towards this way of working but it definitely makes you see it as a valuable part of policy making [...] We have increased our level of dialogue." (Departmental project manager, on Hybrid and Chimera Embryos for Research dialogue)[40]

"There are strong arguments that public deliberation and interaction can lead to more robust science policy, particularly in areas that are intrinsically interdisciplinary and explicitly coupled to societal good." (Expert, on Nanodialogues dialogue)[41]

"I think there should be more of this type of public engagement because as far as I'm concerned it works." (Expert, on Drugsfutures dialogue)[42]

FAQ 4: Does dialogue make a difference?

Public dialogues have made an important difference to both policy making and participants; changing how decisions are informed, made and communicated, increasing public awareness and knowledge of issues, and increasing trust in public policy-making.

Introduction

Does dialogue make a difference? Does it affect policy making decisions? Are policy makers and experts affected by their involvement in a dialogue? Are public participants affected by their involvement in a dialogue?

Demonstrating direct cause and effect from a public dialogue project to a policy is difficult because impacts on policy often take a long time to manifest themselves and public dialogue is often one element of a wide range of inputs and evidence contributing to a decision. Ministers and policy makers can also be reluctant to identify and admit publicly the specific evidence and arguments that have influenced a policy decision.[43]

However, evidence of the impact of public dialogues on policy can be found in documents relating to dialogue projects and through interviewing policy makers. In addition, a significant amount of evidence of the impact of dialogue on participants has also been amassed from evaluations of dialogue projects.

How has dialogue made a difference to policy?

Public dialogues have influenced policy in a number of ways, including directly impacting policy decisions, contributing to policy outcomes, increasing the robustness and credibility of policy decisions, influencing plans for future public engagement and influencing wider debates.[44] Box 2 summarises a selection of the impacts of public dialogues on policy and policy making found by evaluations.

Box 2: Examples of the impact of public dialogue on policy and policy making[45]

New policy programme developed

The Big Energy Shift public dialogue was designed 'to test options for new policy measures to encourage the take up of carbon reduction measures'. The results fed directly into the development of the Low Carbon Communities Challenge which invested £12 million in 22 pilot communities over two years 'to test a range of energy developments in different types of communities.'

Science and technology development proceeded (but with public caveats)

The Hybrid and Chimera Embryos for Research dialogue recommended that the use of hybrid embryos in research should be allowed as long as it was undertaken 'with caution and careful scrutiny' and that the research was 'both necessary and desirable'. The Human Fertilisation and Embryology Authority repeated public caveats in its policy decision to allow research under certain conditions.

Contributed to government policy and parliamentary enquiries

The Trustguide dialogue led to a set of six guidelines intended to enhance the trustworthiness of ICT and contributed to the evidence base on why trust in the cyber world is lost. In addition, its findings were fed into the House of Lords Science and Technology Select Committee's investigation of internet security, the House of Lords Constitution Committee's investigation of the Impact of Surveillance and Data Collection, government work on ID cards, and the Information Commissioner on privacy and protecting children on the internet.

Increased the robustness and credibility of policy

The Drugsfutures dialogue enabled the Academy of Medical Sciences (AMS) to make recommendations to government based on a firm evidence base, with an understanding of public feeling toward recreational drugs, drugs for mental health, and cognitive enhancers. As an AMS working group member commented:

"You can't expect any drugs policy to have long-term success unless you take people with you. If you cut across the grain of the public instinct, it's disastrous. Engaging with people should help us devise policies which are acceptable and sustainable."[46]

Enabled decision makers to demonstrate legitimacy and credibility

The Forensic Use of DNA dialogue was considered by the Human Genetics Commission to have added '"much more credibility and legitimacy" to HGC conclusions by broadening the range of views taken into account, and therefore improving policy "in terms of quality and robustness".'[47]

"There are certain things that we wouldn't have understood without that dialogue and it has enabled the Commission to reflect that understanding. In many ways it confirmed a lot of our suspicions about the way people would think, but we would have had no way of knowing for sure without the dialogue." (Departmental project manager, on the Forensic Use of DNA dialogue)[48]

Additional funds for new research allocated

The Drugsfutures dialogue influenced the Academy of Medical Science's (AMS) priorities. Following the dialogue, the AMS followed up public priorities of addiction as a disease and the need for more work on the safety and regulation of cognitive enhancers. The former was allocated £8 million of new funding by the Medical Research Council and the latter became the subject of a detailed review by the Home Office Advisory Council on the Misuse of Drugs.

"Our work has been influenced because we listened to and we learned from what was being said. We took into account the strength of feeling and the emotional weighting in the public mind." (Academy of Medical Sciences Working Group member, on Drugsfutures)[49]

Fed into decisions on future research funding

The Nanotechnology Engagement Group and Nanodialogues were influential in shaping the UK's nanotechnology policy. As a policy maker involved in the project identified: 'the first area of funding was for nanotechnology in solar energy, which was highly endorsed by the public. The same with nanomedicine.'[50]

"It had a huge impact in terms of the way I think about science and how scientific priorities are set." (Policy maker, on Nanodialogues dialogue)[51]

Having participated in a public dialogue, the majority of participants have greater confidence that the sponsoring body will take their views into account. For example, at the beginning of the Big Energy Shift dialogue 58% thought the project would make a difference to government policy, but by the end 79% did. The presence of government ministers at the Big Energy Shift dialogue particularly helped to demonstrate that the Government was listening.

"[You] do feel that you were actually sending a message directly to Government and that it's being listened to." (Public participant, on Big Energy Shift dialogue) [52]

How has dialogue made a difference to participants?

Evaluations of public dialogues show that they have had some significant impacts on public participants.

The vast majority of participants say they have learnt something new from participating in a public dialogue and many report feeling more interested and enthusiastic about the topic: talking to friends, family and colleagues about the issues and continuing to follow developments. An evaluation of a deliberative dialogue process found that on average, each participant spoke to 30 others.[53]

"I feel more involved, knowledgeable and informed on where to find information." (Public participant, on Sciencehorizons dialogue)[54]

"I'd probably say that three or four times since when I've been browsing web pages I've done a search on synthetic biology to see what's going on." (Public participant, on Synthetic Biology dialogue)[55]

"[I spoke to] friends, family, my work colleagues, because I came away after the very first visit and I was really really enthusiastic about it. I really was and I'm not just saying that!" (Public participant, on Big Energy Shift dialogue) [56]

Participants in public dialogue processes also develop greater levels of trust in public policy-making processes and bodies.

"To have been involved in the process reassures me and enables me to reassure others that our opinions can make a difference and that public bodies [...] are interested in public opinion and do react to it. They are not autonomous megalomaniacs who make up rules and regulations for the hell of it. They are responsible and accountable." (Public participant, on Hybrid and Chimera Embryos for Research dialogue) [57]

Many public participants say that taking part in a dialogue project affected their views and some even report changing their behaviour.

"[My] views did develop as I hadn't thought about it before. [I] came away with more nuanced views. [It] made me aware of different options. [I] felt a bit more enthusiastic about geothermal energy." (Public participant, on Energy 2050 Pathways dialogue)[58]

"I'm going to be moving in the next year or so and [the dialogue] certainly changed my view on what I might look for. I don't think that energy saving gizmos or the way that the place is built necessarily would have been a factor in my choice, but I think it would be now." (Public participant, on Big Energy Shift dialogue) [59]

As the result of taking part in a public dialogue, participants report feeling increased levels of self esteem and sense of self worth. They are pleased to have had an opportunity to have their say and make a difference on something important.[60] That said, participants views on the worth of a public dialogue are often dependent on their contribution being meaningfully recognised (see FAQ 6: Is public dialogue worth the cost?).

FAQ 5: Can the public contribute meaningfully?

Experience has shown that given the right information, support and time, the public can participate in discussions on complex and/or contentious subjects. Many policy makers and experts have been impressed with the speed at which public participants can pick up complex issues and the interest they show.

Introduction

Can the public contribute meaningfully? Do participants engage with issues? Are they able to ask appropriate questions? Can participants take large amounts of complex information on board?

The experience of almost 20 public dialogues supported by Sciencewise so far on issues in science and technology research has been that the public can contribute meaningfully on complex and challenging issues.

'Our experiment showed that it is possible to develop a dialogue about a complex environmental issue with a group of people who initially know very little about it. The nature of the questions asked by the Inquiry and their focus on uncertainties and risks, the need for contextual research, openness, accountability and education shows that their input has been not only meaningful, but valuable.' (Environment Agency, on Nanodialogues)[61]

Has the public contributed meaningfully?

As a result of their experience of participating in a public dialogue, public bodies have reported 'confidence in the commitment and ability of the public to understand complex issues and to engage in dialogue with common sense and a sense of responsibility.'[62]

The evaluation of the Sciencewise programme found that participating in a public dialogue has led experts to develop an:

'Increased respect for public input to science and technology, and understanding of the value of public dialogue for their work and in relation to the wider governance of science and technology. This is largely through seeing first hand the commitment and ability of the public to work on complex scientific issues. Several have said public dialogue has renewed their faith in the general public.' (Sciencewise evaluation)[63]

Policy makers and experts often comment on the enthusiasm with which public participants approach subjects and the level of engagement they show.

"This was genuine engagement – the amount of noise in the room, the way people across the whole room would participate, absolutely no holding back. Giving up a whole Saturday – it's absolutely incredible!" (External stakeholder, on Big Energy Shift dialogue)[64]

"I went around the discussion groups from one table to another – frankly I was moved by the depth of feeling I witnessed [...] I'm a medical man so I was partially aware of the strength of feeling about these issues, but I had really barely realised the half of it." (Academy of Medical Sciences Working Group member, on Drugsfutures dialogue)[65]

Policy makers and experts are also regularly impressed by public participants' ability to delve into and understand the key issues, taking on board large amounts of information and asking relevant and probing questions of experts.

"I was very impressed by the questions that were asked. There were a number of quite insightful questions about nanotechnology. They'd really done a lot of research in some cases [...] For me it was a really useful and interesting experience." (Scientist, on Nanotechnology Engagement Group)[67]

"Some of the people who I got the impression didn't know a lot before the event seemed to have picked up a lot, and that was quite impressive I thought, for non-scientists to pick up as much as they did in that very short time. I was very impressed with that." (Expert, on Industrial Biotechnology dialogue)[68]

"[I want] to say how impressed I continue to be by the way ordinary members of the public can say in a few words what an academic says in a paragraph" (HFEA member, on Hybrid and Chimera Embryos for Research)[69]

'Scientists and the public can communicate on complex issues about emerging food technologies – if the public is given time and resources to learn and understand.' (Chair of Foods Standards Agency)[70]

'This engagement has shown that, given adequate resources and access to expertise, publics can not only take on difficult issues, but work with them in ways which provide meaningful contributions to governance.' (Environment Agency, on Nanodialogues) [71]

Experience has shown that participants are able to make complex trade-offs between the benefits and risks of science and technology developments. The public do not reject new developments out of hand, but form nuanced positions regarding how research should be regulated and governed. For example, a review of public dialogues on Genetic Modification (GM) found that, even on such an apparently controversial topic, the public has nuanced and conditional views and does not accept or reject innovations completely:

‘The work exploring public views reviewed here does not paint a simple picture of public opinion, the diversity of which is impossible to capture. There is no evidence of overwhelming intrinsic opposition to GM. Public concerns are conditional. They tend not to be expressed in terms of “yes” or “no” but in terms of “yes, but...” and “no, but...” Concerns can be described at different levels, ranging from those that are specific to GM technologies to those that are about the governance of science and innovation in general [...] Public groups do indeed express concern about the potential hazards of GM food, but these concerns are the start of the discussion rather than the end.’ (Sciencewise subgroup on GM dialogue)[72]

“The majority of participants decided how acceptable they found ACHM [animals containing human material] research by ‘trading off’ their views of the purpose of the research against concerns over the process it involves.” (Case study, Animals Containing Human Material dialogue)[73]

Ensuring that the public can contribute meaningfully requires a carefully designed process and a safe environment, which gives time and space for participants to digest appropriate information, ask questions and engage with experts, and talk among themselves.

"Discussions of controversial issues can succeed if diverse publics are allowed to contribute the expertise they have gained through their life experiences on an equal footing with experts." (Project manager, on Community X-change)[74]

Perhaps the best indication that the public can contribute meaningfully to complex issues through public dialogues is that many have led to recommendations for more. Since the Nanodialogues in 2007, for example, research councils have held public dialogues on topics including energy research (2007), stem cell research (2008), nanotechnology for healthcare (2008), synthetic biology (2009), living with environmental change (2010) and geoengineering (201

“It raised the profile of public engagement in the research councils and laid the groundwork for further engagement... It opened the space for future dialogue and contributed to the quality of information. And you can see this going forward into the debate about synthetic biology” (Policy maker, on Nanodialogues)[75]

FAQ 6: Is dialogue worth the cost?

The costs of public dialogues are small in comparison to the money spent on the issue areas they cover, and a little upfront investment in public dialogue can save lots of time and money in the long term.

Introduction

Is dialogue worth the cost? What are the costs? What are the benefits? Do the public support the cost?

While the budgets for the external costs of public dialogue are relatively easy to calculate, the benefits are much harder to quantify and can, by the nature of upstream engagement, take time to emerge. However, policy makers report a wide variety of benefits from public dialogue (see FAQ 3: Is public dialogue useful?) and that public dialogue can save time and money in the long term.

What are the costs and benefits of public dialogue?

There is a strong argument that public dialogue can save money in the long term. Public opposition to new technologies can delay or prevent any further development or innovation, resulting in large costs managing conflict, not to mention the opportunity costs of developments being delayed that the public might otherwise have supported. Public dialogue gives policy makers direct experience of the hopes and fears, and views and values of the public, enabling them to 'find ways forward that go with the grain of public views, and avoid the conflicts and entrenched positions that can result in the complete rejection of new technologies.' [76]

> "It saves you a lot of difficulty further down the line if you do public dialogue early on." (Policy maker)[77]
>
> "[It] might seem an unnecessary expense in this age of austerity but not doing it can have larger costs further on." (Practitioner) [78]

For example, the Stem Cell Dialogue in 2007 cost £300,000, but the dialogue helped policy makers to find a way forward that enabled the UK to take a leading position in regenerative medicine – an industry worth £500 million per annum in 2009:[79]

> "One thing we have learned from our ongoing activities on stem cell research is that the way in which you become a leader in stem cell research is by being responsive to public opinion." (Public affairs manager, Medical Research Council)[80]
>
> "Not making policy mistakes avoids risks such as time lost correcting mistakes (and dealing with public concerns about actual and potential policy mistakes), delaying implementation of the parts of the policy that could have been taken forward without problems, as well as major financial, legal, reputational and regulatory costs." (Sciencewise evaluation)[81]

The cost of Sciencewise dialogue projects so far have ranged from £30,450 to £788,000, though the majority lie in the £100,000 to £300,000 bracket (see figure 1).

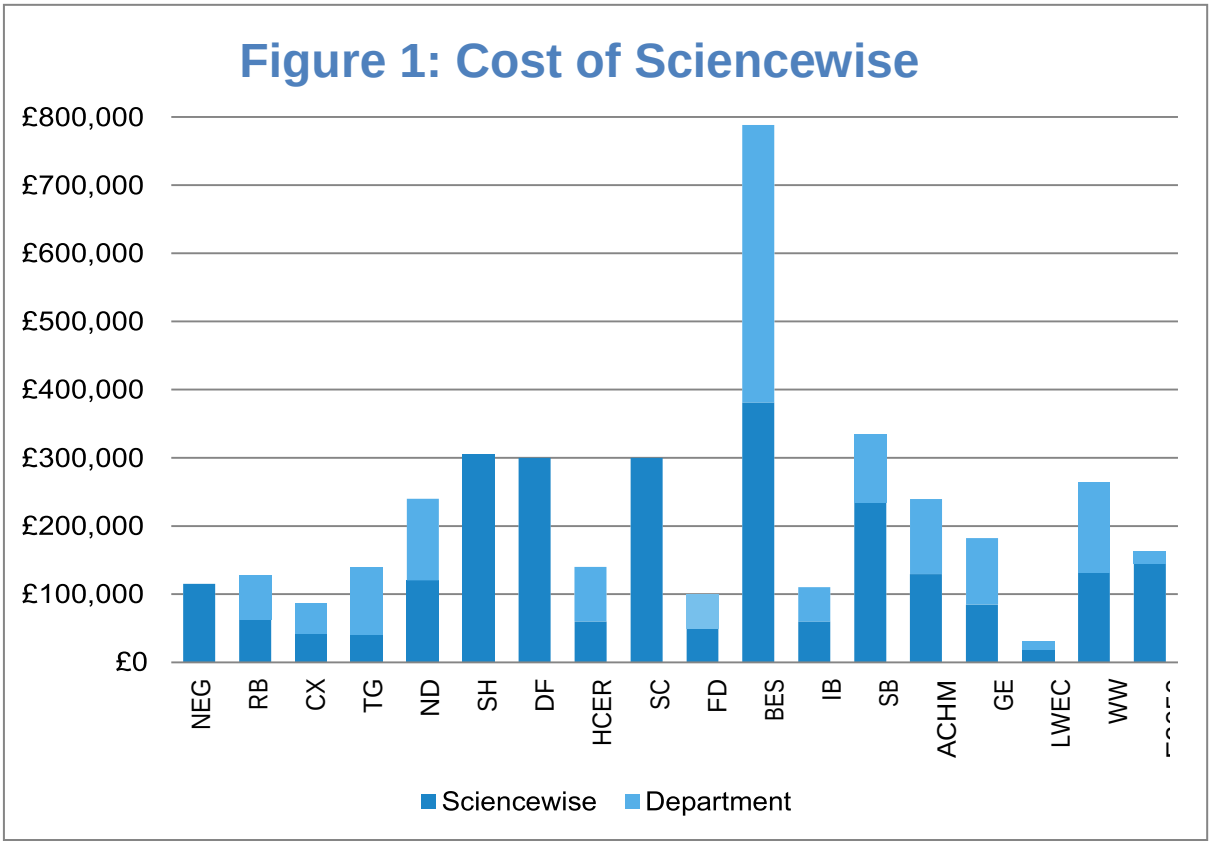

Figure 1 key

NEG: Nanotechnology engagement group	RB: Risky Business
CX: Community x-change	TG: Trustguide
ND: Nanodialogues	SH: Sciencehorizons
DF: Drugsfutures	HCER: Hybrid and chimera embryos for research
SC: Stem Cells	FD: Forensic Use of DNA
BES: Big Energy Shift	IB: Industrial biotechnology
SB: Synthetic Biology	ACHM: Animals containing human material
GE: Geoengineering	LWEC: Living with Environmental Change
WW: Ways to wellbeing	E2050: Energy 2050 pathways

The cost of a dialogue project depends on the scope and methodology chosen, which is largely defined by the purpose and context of the project. Adequate and appropriate resources are needed to enable dialogue to be effective and for its benefits to be fully realised, but that does not mean it always has to be expensive – cheaper methods can sometimes be equally effective. It is worth highlighting that the cost of a public dialogue is a very small proportion of an overall budget for science and technology development. For example, the Nanodialogues project in 2006 cost

£240,000, while the value of nano research in 2007 was estimated to be about $12 billion and the value of nano-enabled products $50 billion. [82]

However, it should be noted that the small relative cost of dialogue can actually have an adverse affect on policy makers' time commitment. For example, the budget for the Ways to Wellbeing dialogue (£264,000) was seen by policy makers as quite small in terms of the overall spend on the issues covered which affected their expectations of time commitment.[83] An effective dialogue requires time commitment from policy makers and experts to participate, which must be factored in when considering the costs.

Do public participants think dialogue is worth the cost?

The view of public participants is that public dialogue is worth the cost, but only if their views are listened to and the process makes a difference.[84]

> 'There was a general feeling that this consultation (and consultation in general) was money well spent if, and often only if, Government listened, took notice and what the public said made a difference.' (NUC Deliberative Public Event Evaluation)[85]

Some participants also identify the potential for the government to save money in the long term by responding to what the public tell them.

> "I think it is a very small amount of money if what we asked for is done. Because they are acting on what the public want, this whole thing should save the Government money in the long run." (Public participant, on Your Health, Your Care, Your Say)[86]

FAQ 7: How many people need to be involved?

Public dialogues to inform policy or decision making typically involve a relatively small number of participants in order to allow for in depth deliberation to explore their views, and the values, beliefs, experiences, interests and needs that underlie them. Public dialogues are, however, often complemented by other forms of engagement that involve a larger number of participants.

Introduction

How many people need to be involved? How does public dialogue achieve representativeness and legitimacy? What are the trade-offs and compromises that need to be made?

Public dialogues cannot involve everyone in a meaningful way. It is therefore inevitable that questions of how public dialogues can achieve representativeness and legitimacy arise. The assumption is often that greater numbers of participants equal greater representativeness and legitimacy, but this is not the case. The answers to these questions, and by extension the number of people that need to be involved, ultimately come down to the purpose of a public dialogue and, more specifically, who or what (if anything) the participants are intended to represent.

Representativeness through purposive sampling

Public dialogues to inform policy or decision making commonly involve a relatively small number of participants, compared with other forms of dialogue, engagement or social research. This is because there is a trade-off between **the depth** of a discussion and **the number of people** that can be involved in it.

The purpose of public dialogues is typically to achieve in-depth deliberation in order to support participants to develop their views and delve beyond them to **uncover the values, beliefs, experiences, interests and needs** that underlie them. This necessitates quite an intense process with high quality facilitation and the opportunity for participants to interact with one another and directly with experts.

This is particularly important for complex subjects, such as science and technology issues, that require high levels of engagement from participants for them to understand the issue and contribute meaningfully.

This type of dialogue therefore requires the involvement of enough participants to represent a range of different and diverse views, values, beliefs, experiences, interests and needs. However, there is a theoretical (but impossible to define in advance) optimum number of participants, beyond which there are diminishing returns from adding more participants in terms of the difference or diversity of contributions, but rising costs and challenges for

facilitation and analysis (which are both likely to begin to suffer).

Therefore, representativeness in this case is typically achieved via the same approach as qualitative researchers take. Participants are chosen through a process of purposive sampling, as opposed to random sampling often used in quantitative research. The aim of purposive sampling is to involve a selection of people who might represent the widest possible set of views, values and demographies. The findings therefore cannot be taken to be statistically representative of the general population, but can uncover participants' views and the values, beliefs, experiences, interests and needs that underlie them.

Other approaches

While this is commonly the case for dialogues that inform policy or decision making, there are other methodologies, such as Deliberative Polling® and Citizens' Summits, which involve much larger numbers of participants, typically because they have a different primary purpose.

Deliberative Polling® takes more of a quantitative approach to achieving representativeness, using random stratified sampling to select a statistically representative sample of the population whose views are polled at the beginning and end of a deliberative process, enabling comparisons to be drawn. Deliberative Polling® is good for statistical rigour but suffers from high costs.

Citizens' Summits sometimes use a process of purposive sampling, but are often open to anyone with an interest to attend (i.e. participants are self selected), with some targeted interventions to include "hard-to-reach" groups. This is because they typically focus more on moving participants towards consensus and action after the event. Citizens' Summits are good for creating agreements and action but are not necessarily representative and also suffer from high costs.

Mixing methods

Public dialogue projects do not necessarily just use one methodology, but take a mixed approach. The Sciencehorizons dialogue project, for example, included a deliberative panel (involving 31 participants), facilitated public events (involving 842 participants) and self-managed, small group discussions (involving around 2,400 participants).[87]

Public dialogues are also often complemented by other forms of engagement or social research (see Box 1 in FAQ 1: What is public dialogue?). Written consultations, focus groups, opinion polls, simulations and other methods have been used to complement the in depth findings of public dialogues.

Figure 2 sets out the number of participants who have been involved in Sciencewise projects. Some of these dialogue projects included other forms of engagement, as well as deliberative dialogue. These elements are highlighted in the key so as to distinguish them.

Figure 2: Number of participants in Sciencewise dialogue projects

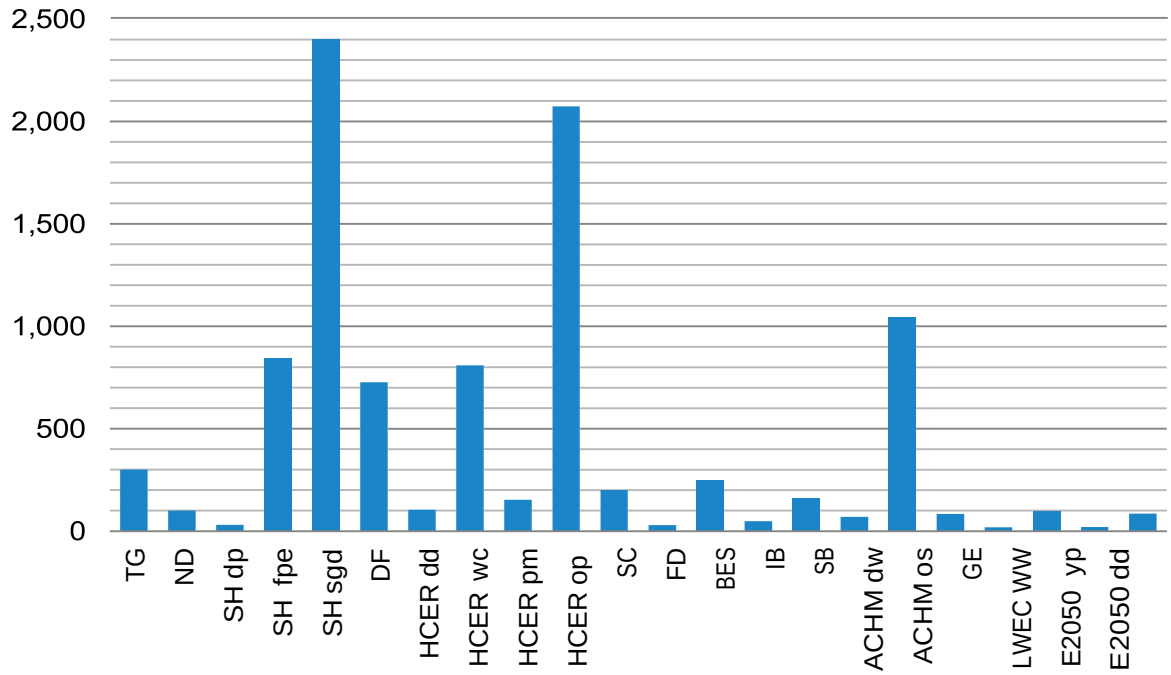

Figure 2 key

TG: Trustguide

ND: Nanodialogues

SH dp: Sciencehorizons deliberative panel

SH fpe: Sciencehorizons facilitated public events

SH sgd: Sciencehorizons self-managed small group discussions

DF: Drugsfutures

HCER dd: Hybrid and chimera embryos for research deliberative dialogue

HCER wc: Hybrid and chimera embryos for research written consultation

HCER pm: Hybrid and chimera embryos for research public meeting

HCER op: Hybrid and chimera embryos for research opinion poll

SC: Stem Cells

FD: Forensic Use of DNA

BES: Big Energy Shift

IB: Industrial biotechnology

SB: Synthetic Biology

ACHM dw: Animals containing human material deliberative workshop

ACHM os: Animals containing human material deliberative workshop omnibus survey

GE: Geoengineering

LWEC: Living with Environmental Change

WW: Ways to wellbeing

E2050 yp: Energy 2050 pathways youth panel

E2050 dd: Energy 2050 pathways deliberative dialogues

FAQ 8: Do the public want to be involved?

Experience has shown that the public are interested in participating in science and technology issues, enjoy the process and see the value and importance of public dialogue.

Introduction

Do the public want to be involved? Do they see the benefit of public engagement in science and technology issues? Do they enjoy and/or value the experience of being involved themselves?

A commonly cited concern is that citizens are disengaged from public institutions and won't get involved even if there's the opportunity to do so. Some suggest that citizens are apathetic
(referencing the decline in voting over recent decades) and care little about political, social or ethical issues.

While it is true that people have increasingly disengaged from public institutions, this does not reflect a lack of interest or desire to have a say.[88] Participants in the vast majority of public dialogues are remunerated for their involvement meaning there is an extra motivation for them to participate. However, many report being motivated to participate for a number of other reasons, and enjoy and value the experience of being involved.

Do the public want to be involved?

A study[89] of public attitudes to science in 2011 found that 73% of the public agreed that government should act in accordance with public concerns about science and technology and 66% thought that scientists should listen more to what ordinary people think. Two-thirds (65%) also agree that they would like scientists to spend more time than they do discussing the social and ethical implications of their research with the general public.

Over a third (35%) agreed that for them, it is important to be involved in decisions about science and technology. While this is significantly lower than the proportion of people who think the public should be consulted, it still shows a significant level of **personal enthusiasm** for public engagement in science and technology from a significant proportion of the population. The study found that:

> 'People see a variety of benefits to greater public involvement in decision-making about science. The main benefits mentioned (unprompted) are about allowing the public to make informed decisions about their lives (15%) and enabling them to better judge science issues for themselves (13%), indicating that people tend to value what they could personally get out of becoming more involved.'(Ipsos MORI)[90]

However, it should be noted that a significant proportion of the population are confused by what "public consultation on science" means, 'with two-fifths saying either that they don't know (17%), saying nothing (16%), or saying they have never heard of it (5%).'[91] The study also highlighted:

> 'a high degree of cynicism about public consultation in general. Half (51%) agree that public consultation events "are just public relations activities and don't make any difference to policy" and almost half (47%) think that they "are unrepresentative of public opinion".' (Ipsos MORI)[92]

These findings therefore suggest a strong appetite for public engagement in science and technology, but also an equally strong need to ensure that public dialogue processes are meaningful and robust.

Do public participants value their involvement?

Evaluations of public dialogues also show that public participants have an appetite for taking part, and enjoy and value being involved in what they consider to be important discussions about science and technology issues.

> "The issues involve society as a whole and not just scientists doing the research. We need to be accurately informed about the actual research and what is happening without media hype or hindrance." (Public participant, on Stem Cell dialogue)[93]
>
> "I felt it would be good to be part of something that probably would be quite significant, when you think about the scheme of things, especially if it's going to help to advise Government policy." (Public participant, on Geoengineering dialogue)[94]

The vast majority of public participants (typically 90%-100%) support continued public involvement in discussions about science and technology. For example, the Stem Cell, Big Energy Shift, Industrial Biology and Drugsfutures dialogues all demonstrated significant enthusiasm for dialogue, with 99%, 98%, 96% and 96% of public participants respectively saying they felt it was important to involve the public in discussing the sorts of issues covered. Similarly, the majority of participants in the Sciencehorizons dialogue thought there should be more events for the public on such issues, and more discussions on science and technology.[95]

Public participants often cite the deliberative dialogue approach itself as something they enjoyed and valued being a part of. The evaluation of the Sciencehorizons dialogue,[96] for example, found that participants enjoyed the deliberative panel process, liking the level of engagement they had with the issues and experts.

'There was a widespread view that the deliberative process ought to be used more and that this would be healthy for public life and policy development.' (Evaluation of Sciencehorizons dialogue)[97]

"That was my first time taking part in something like that, but it wouldn't be my last. I was impressed about the whole thing ... When it was over, you went, 'oh, well, a bit more of that would do'. It was hours well spent. I enjoyed myself." (Public participant, on Big Energy Shift dialogue)[98]

Public participants say that they particularly value the opportunity to engage directly with policy makers and experts on an issue, being able to ask questions, hear their views and tell them directly what they think. Participants also value being able to share views with other participants they are otherwise unlikely to meet.

"I think one of the main things is meeting a lot of other people with a lot of different views and altering my own views. It's important to hear other people's points of view." (Public participant, on Drugsfutures)[99]

"... the people involved are still in contact with each other ... it had a real impact on them ... the level of participation of the individuals and the support they provided to each other was one of the best things. It was clear that they had developed a lot of respect for each other and each others' views." (Departmental project manager, on Forensic Use of DNA dialogue)[100]

Having taken part in a dialogue, the vast majority of public participants say they would be even more willing to take part in a similar event in future. Over 90% of participants in the Drugsfutures, Hybrid and Chimera Embryos for Research and Stem Cell dialogues, for example, said they were more likely to get involved in public dialogues as a result of attending.

"The dialogue opened my mind to science and what's going on. It's made me feel like I'd go again, no matter what was being talked about. It felt nice to be invited." (Public participant, on Animals Containing Human Material dialogue)[101]

FAQ8: Do the public want to be involved?

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