

Government Office for Science, a consultation by the Government Chief Scientific Adviser: Guidelines on Scientific Analysis in Policy Making**Response by the Wellcome Trust**

February 2010

1. The Wellcome Trust is the largest charity in the UK. It funds innovative biomedical research, in the UK and internationally, spending over £600 million each year to support the brightest scientists with the best ideas. The Wellcome Trust supports public debate about biomedical research and its impact on health and wellbeing.
2. It is essential that Government policy is informed by the best available evidence. It is equally critical to ensure that scientific advisers can freely give independent expert advice without government interference. The Trust therefore supports the Guidelines on scientific analysis in policy making, and welcomes the opportunity to respond to the consultation to update this guidance.
3. We support the ethos underlying the *Principles of scientific advice to the Government* in outlining the rights and responsibilities of policy makers and scientific advisers. However, we suggest that the Principles are incorporated into other guidance rather than standing alone. The other key messages of our response are:
 - guidance should be concise and it is essential that common sense is used in its application;
 - the importance of ensuring that the best available scientific evidence informs policy-making both at an early stage and throughout the process;
 - the need to distinguish and clarify the different roles of scientific advisers and policy makers in the decision making process;
 - the need to consult a wide range of stakeholders when seeking advice, including funding agencies and research charities; and
 - the need to continue to build in-house expertise to ensure scientific advice can be appropriately sought, interpreted and implemented.

Lord Drayson's 'Principles of scientific advice to Government'

4. While we agree broadly with Lord Drayson's new high-level *Principles of scientific advice to the Government* ('the Principles') we suggest that an additional set of guidance would create unnecessary complexity. It would be more appropriate to incorporate the Principles into the existing *Code of Practice for Scientific Advisory Committees* and to ensure they are consistent with the Government Chief Scientific Adviser's Guidelines. In order to achieve a productive working relationship it is essential that both policy makers and scientific advisers have a clear understanding of what is required of them, and their rights and responsibilities.
5. To ensure clarity in the responsibilities of ministers in the scientific advice process, we also recommend that the Principles should be incorporated into the Ministerial Code. This approach was suggested at the House of Lords Science and Technology Select Committee Seminar: *The provision of scientific advice to Government* on 2 February 2010, attended by members of the scientific community. Subsequently the House of Lords Science and Technology Committee have engaged with the seminar participants, including Sense About Science, to draft text to add to the Ministerial Code that would obviate the need for separate Principles.

6. If the Principles were to be used in their current form, we would be very concerned about the statement: *“the Government and its scientific advisers should work together to reach a shared position”*. It may not be appropriate or achievable for advisers and the Government to reach a common position on a specific policy. Scientific advisers must remain true to the scientific evidence, while recognising that Government will need to take account of a much wider range of factors when reaching a policy decision. We would therefore suggest that this statement should be revised to encourage open dialogue where there are differences of opinion. For example it may be beneficial for policy makers to present scientific advisers with a range of policy options and to seek advice on which is most appropriate, given the scientific evidence.

The Government Chief Scientific Adviser’s (GCSA) Guidelines on Scientific Analysis in Policy Making

Question 1: The need for guidelines

7. We consider the GCSA’s Guidelines are both important and essential. They provide a framework to ensure that reliable scientific evidence is taken into account in policy making, and that decision-making processes are well-informed and transparent. Paragraphs two and four of the Guidelines are an excellent summary of the need for such guidelines: to ensure that scientific evidence and analysis is robust and objective; that scientific advice is sought from a wide range of sources as early as possible; and that the public have confidence in the advisory process. We therefore fully support these Guidelines.
8. We recognise the importance of ensuring consistency across all guidance. We suggest that it would be appropriate to update the Guidelines as necessary to ensure that the ethos underlying the new Principles is fully reflected throughout. However, it is important that guidance does not grow indefinitely and that it is both relevant and concise. It is also essential that common sense is used in its application.

Questions 2: Identification of issues needing specialist advice

9. We fully agree that policy makers should consult stakeholders at the earliest possible stage in order to develop high-quality evidence-based policy. While the Human Fertilisation and Embryology Act was eventually a positive demonstration of engagement between scientists and policy makers, even in that example scientists were not consulted in the early stages. The initial White Paper would have benefited significantly if researchers had been engaged from the outset, and the process could have been made much smoother for all involved.
10. Adequate identification of issues requires appropriate and sufficient expertise in-house, to ensure that relevant groups are consulted. Care needs to be taken to ensure that there is not too heavy a reliance on a limited number of specialists. Building in-house expertise will ensure not only that the right experts are identified, but also that the right questions are asked. It is also essential to ensure appropriate interpretation of advice (as discussed in paragraph 19 below). The appointment of Chief Scientific Advisers to all departments is a positive step towards increasing scientific capacity within departments.
11. We would also encourage the Government to ensure horizon scanning processes look beyond the UK, to Europe and internationally. European legislation is increasingly having a significant impact on the conduct of research in the UK. The EU Physical Agents Directive is one example of many where wide consultation was not conducted at an early enough stage, leading to potentially detrimental effects for the clinical and research use of magnetic resonance imaging in the EU.
12. The process for seeking scientific advice from stakeholders must be as comprehensive for the development of European legislation as it is for UK policy. Paragraph 12 of the Guidelines mention the importance of consulting with European experts once an issue is identified – we recommend that Europe should be taken into account at an earlier stage, in order to inform the process for identifying those issues where advice will be needed.

Question 3: Obtaining specialist advice

3b) On expert advisers

13. We welcome the recognition that advice should be taken from a wide range of expert sources but we would suggest that funding agencies and research charities should be added to the list of sources. These groups offer a valuable perspective, and also have access to wide networks of researchers and patient groups in order to identify appropriate experts. While there is an important role for the National Academies and other learned societies to play in providing advice, this should not exclude the need for government departments to consult with other organisations as well.

3d) On public dialogue

14. Public consultation and engagement is a very important aspect of the policy making process, but it is imperative that a robust mechanism is in place to analyse the outcomes of such exercises and to better understand the underlying reasoning behind public opinion. The House of Commons Science and Technology Committee recommended, in its report following the initial revision of the Human Fertilisation and Embryology Act,¹ that: “in the future a more systematic statistical or scientific approach is developed to quantify and qualify the results of public consultation.” We support this view.

15. It is essential for Government to develop policies that inspire public confidence. A recent survey by the Wellcome Trust² sought the views of a random sample of 1179 adults on various aspects of biomedical research. The survey found that the public consider individuals and organisations directly connected with medicine or research, such as university scientists, to be much more trustworthy sources of accurate and reliable scientific information than the Government or the media in general. It is therefore particularly important that the role of scientific advisers in policy making is well defined, in order to build on this trust.

Questions 4 and 6: Handling the advice, and Implementation

16. Clear processes must be in place to ensure that independent scientific advice is used in the most effective way possible to inform policy making. Advisers, the public and policy makers must all have confidence in the system. The new statements on transparency and openness set out in the Principles are therefore helpful, and we recommend that they should be incorporated into this section of the Guidelines to ensure a consistent approach.

17. It is also important to acknowledge that scientific evidence is just one of the factors influencing policy decisions. We agree with the Council of Science and Technology’s analysis³:

“Policy decisions involve difficult choices that need to take account of a very wide range of factors. Academics must recognise that where a particular view does not prevail, or where decisions are taken for political reasons, this does not mean the academic input was not valued.”

The Government’s *Code of Practice for Scientific Advisory Committees* makes this point well, and it would be helpful to add further clarification in the Guidelines.

18. It is important to ensure that advice is taken at all stages of the policy making process. In some instances, when specific and targeted advice has been integrated into a more broad-reaching policy, it has led to confusion. For example, the Human Genetics Commission (HGC)’s recommendation that testing DNA without consent should be made a criminal offence

¹ <http://www.publications.parliament.uk/pa/cm200607/cmselect/cmsctech/272/272i.pdf>

² The Wellcome Trust Monitor: A survey of adults’ and young people’s awareness, interests, knowledge and attitudes to biomedical research. The report will be released in 2010.

³ <http://www.cst.gov.uk/reports/files/academia-government.pdf>

was initially introduced into the Human Tissue Bill in a way that went significantly beyond the scope envisioned by the HGC and would have been unworkable.

19. Building in-house expertise is again important to ensure that scientific evidence is appropriately used to inform decision-making. On some occasions we have found that interpretation of data by some departments may have been misleading, usually due to lack of understanding of the context. For example, the presentation of data showing a strong link between students who took three sciences at GCSEs and those who went on to study science post-16 appeared to confuse correlation with causation. It is important to ensure that there is adequate knowledge and understanding of the context in which evidence is generated, in order to ensure data is interpreted appropriately.
20. This also means that openness and transparency are key, so that it is clear how and when evidence has been used to inform a policy. We agree that it is important to publish scientific advice and underlying evidence wherever possible, and that the Government should also explain the reasoning behind policy decisions. While we recognise that there may need to be a distinction when advice is given in a crisis, it is important to ensure that advice should be made available as soon as reasonably practical, and in an accessible format.
21. Government policy must be underpinned by the best available evidence, and scientists providing advice should be able to do so independent of the Government. We would be pleased to discuss any of the points raised in this response in more detail if required.