

Science, media and public perception: implications for climate and health policies

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International climate policy has been set back by the failure to achieve a strong and legally binding agreement at the United Nations' Climate Change Conference held in Copenhagen in December 2009. This has been compounded by the unauthorized release of email content dating back 10 years from leading climate scientists, and an acknowledged error (and other alleged errors) in the most recent report of the Intergovernmental Panel on Climate Change (IPCC), leading to widespread negative reporting of climate science.

This is occurring just as the public health community has begun to pay much more attention to climate change, as evidenced by a 2008 World Health Assembly resolution and statements by major public health associations. Given the allegations that are now being levelled at climate science, is this attention misplaced?

At the most basic level, the answer is clearly no. The conclusion that climate change is happening, and is due mainly to human activities, is based on well-established physics, supported by a large and coherent body of theoretical and observational evidence. It is also endorsed by most relevant experts, i.e. more than 97% of climatologists who are actively publishing on the issue, according to a recent survey in the United States of America (USA).¹ This is equivalent to the expert consensus that HIV causes AIDS, or that smoking is an important risk factor for lung cancer. Overturning any of these consensus would require a credible alternative theory, backed by an equivalent body of peer-reviewed evidence. This is currently absent in each case.

Nonetheless, the reported criticisms of the science are relevant, to the extent that they affect public opinion, and therefore support for policies to address climate change. For example, a recent survey in the United Kingdom showed that only 26% of the public believe that climate change is "happening and now

established as largely man-made";² and in the USA only 34% of the public consider that "most scientists think that global warming is happening".³ Opinions will vary as to how much of this disconnection between the expert assessment and public perceptions is due to failings of the scientists themselves, and how much is due to the nature of reporting on scientific findings. This includes media coverage that provides balance mainly by giving equal weight to extreme opposing positions,⁴ large commercial and ideological lobbies seeking to amplify evidence and viewpoints that support their own vested interests and attack those that do not,⁵ and a strong tendency for individuals to ignore information that suggests that they should make unwelcome behavioural changes.⁶

While the media debate continues, the public health community needs to keep its sense of perspective. The real question, both in formulating policy and in communicating with the public, is not "is climate science perfect?", but "are we proposing the most responsible actions, in the light of the best available evidence?" As with any field of public health, this requires consideration of the potential magnitude and uncertainty of the hazard, and the effectiveness, costs and risks of any proposed response, in order to identify the "best bets" for improving health, in both the short and the long-run.

On the hazard side, the balance of evidence indicates that climate change will mainly have negative effects, but the uncertainty is large in both directions, ranging from the potential for some positive effects in some populations, to diverse, widespread and severe impacts on health and health equity. Fortunately, there is much less uncertainty around the best responses. These include, for example, strengthening disease surveillance programmes, control of vector-borne diseases, and greater and more resilient coverage of water and sanitation

resources. They also include improvements in climate-risk management, to protect health both from extreme weather events, and any long-term degradation in the environmental determinants of health, such as air quality, the availability of fresh water, and food security. All of these interventions would both save lives now, and increase resilience to gradual climate change.

The same reasoning applies to mitigation policies, which are essentially decisions about how we supply and use energy. Although some policies to reduce greenhouse gas emissions will involve costs and trade-offs with other priorities, much of the task can be achieved with overall cost savings,⁷ while many interventions would bring enough public health benefit (for example through reduced air pollution) to repay the cost of investment.⁸ Health researchers and agencies are therefore providing evidence and policy tools to support policies, such as cleaner and more equitable energy provision and more sustainable transport systems.⁹

Although we are confident in the measures that we are promoting, being serious about evidence-based policy means remaining absolutely open to any corrections, or to serious new findings, which have a direct bearing on the policy advice that we give. The recent furore does not seem to have brought forward any such evidence. We continue to work with countries that have a range of health stresses and are now at increasing risk of being flooded by rising sea-levels and more severe weather, suffering prolonged drought or struggling to provide clean energy to increasing populations. Unfortunately, nothing in the recent coverage suggests that we will be able to give up this work anytime soon. ■

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