How Activism Distorts The Assessment Of Health Risks

For all its self-justifying claims, the precautionary principle seeks to deny a central fact – there is no way to avoid risk in life – all we can do is to try to use available knowledge to distinguish between large, well-established risks; those that are probable; and those that available evidence suggests are trivial or non-existent.

Since only a small number of IARC’s assessments have been reviewed by independent scientists, it remains to be seen to what extent the ranking of other agents is affected by “false positives.” However, there is reason to believe that at least two other exposures classified by the agency as group 1 carcinogens are open to question – namely, diesel exhaust and environmental tobacco smoke.

Given IARC’s prestige and authority, its assessments carry enormous weight with regulatory agencies, such as the U.S. EPA and California’s Air Resources Board (CARB). But, of course, these agencies are also subject to pressures from NGO’s and advocacy groups in their own right. To give just one example, CARB has recently proposed major restrictions to reduce the levels of fine particulate matter (PM2.5) in the state; however, the agency’s assessment avoids acknowledging extensive epidemiologic studies that consistently show that in recent decades PM2.5 levels are not associated with total mortality in California.

Contamination of what is billed as science-based risk assessment by researchers and by the precautionary principle has become a pervasive problem. By emphasizing precaution, advocates can favor those studies to appear to show a hazard and appeal to the public, always relying on argument that anyone who questions the interpretation of the evidence must be a shill of industry.

But the conflation of advocacy with science has a high cost. It distracts the public by focusing attention on threats which in many cases turn out to be non-existent. It forces industry and government to devote limited resources to
issues where the return is likely to be nil. Finally, it damages the credibility of science, and particularly the discipline of epidemiology – which society depends on to address serious issues.

What these distortions and abuses make clear is the need for a firewall between advocacy and science. We have to recognize that studies that carefully assess the effects of an exposure on health are extremely difficult to carry out correctly without the errors of bias and confounding and, thus, are of variable reliability and validity. We also need to recognize that scientists are human and can be influenced by pressures and agendas that have nothing to do with science. This does not mean that we should be complacent about threats to health and the environment. It does mean that the scientific evidence needs to be evaluated rigorously and dispassionately by people who do not feel they know the answer but whose sole goal is the accurate assessment of the evidence. People who know the answer and have an agenda are believers and advocates, and they should have no role in assessing the science.

Geoffrey C. Kabat is a cancer epidemiologist at the Albert Einstein College of Medicine and the author of Hyping Health Risks: Environmental Hazards in Daily Life and the Science of Epidemiology.