

EPIDEMIOLOGIC SCIENCE AND PUBLIC HEALTH POLICY

Our alleged views on science and policy [1] differ from our actual views [2]. We do not believe that epidemiologists "simply should not be involved in policy making" [1]. To the contrary, we uphold the "rights and responsibilities of scientists to participate, like any concerned citizens, in the political process that determines policy" [2]. The science of epidemiology is firmly ensconced within the social movement of public health [3]. Forums abound for the expression of public health policy preferences. We encourage epidemiologists to participate in those forums and to create new ones if necessary.

We have voiced two specific concerns about the interplay between epidemiologic science and public health policy [2]. One is the adverse effect that a policy position can have on a scientist's work. Dispassionate assessment of one's data is difficult under the best of circumstances. By taking a public stand on policy questions related to one's research, a scientist may become defensive of the advocacy position and less willing to entertain hypotheses, analyses or methodologic criticisms that seem at odds with that position. Advocacy may thus hinder a self-critical approach to scientific research. We believe that research and advocacy *on the same topic* do not mix well.

Our other concern is with the trivialization of public health policy analysis. Expertise in conducting clinical trials or case-control studies does not make one a proficient analyst of public policy. If a public health policy forum were to be convened under the auspices of the epidemiologic profession, the forum's performance would be judged by its skill at policy analysis, not by its skill at epidemiology. The decisions to withdraw Bendectin and to add a warning about Reye's syndrome to aspirin labels may have been "directly based" on epidemiologic data, as Betsy Foxman asserts [1], but the decisions were

not based *exclusively* on those data. No public health policy decision ever depends *solely* on epidemiologic data. Rights, liberties, economics and other non-epidemiologic issues are inextricably bound up in every public health policy question.

Dr Foxman hopes that a policy forum of epidemiologists "might lead to a more rapid change in public beliefs and in the setting of policy" [1]. Paradoxically, she characterizes the belief change and policy setting with respect to Bendectin as precipitous. Her examples better illustrate a statement with which we agree: that epidemiologists should be "helping policy makers formulate public health policy" [1]. Epidemiologists can help, not by calling for a drug to be removed from or remain on the market or for labels to be changed, but by communicating the existing epidemiologic findings and their public health implications effectively to policy makers. To the extent that an epidemiologic policy forum would improve policy makers' understanding of epidemiologic research, we would support the creation of such a forum.

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REFERENCES

1. Foxman B. Epidemiologists and public health policy. *J Clin Epidemiol* 1989; 42: 1107-1109.
2. Rothman KJ, Poole C. Science and policy making. *Am J Public Health* 1985; 75: 340-341.
3. Greenland S. Probability versus Popper: an elaboration of the insufficiency of current Popperian approaches for epidemiologic analysis. In: Rothman KJ, Ed. *Causal Inference*. Chestnut Hill, Mass.: Epidemiology Resources Inc.; 1988: 95-104.

Response

My apologies to Poole and Rothman for my lack of clarity in stating their position. In my article I state that "some epidemiologists believe

the profession simply should not be involved in policy making [1]". My focus is on the profession, although this statement might be

interpreted as including individual epidemiologists acting as private citizens. I believe that "Epidemiologists should consider establishing a forum for deciding and publicizing the profession's opinions regarding issues of public health importance [1]". I am pleased that Poole and Rothman support the creation of an epidemiologic policy forum to improve policy makers' understanding of epidemiologic research and to help policy makers formulate public health policy [2].

The "hallmark of scientific behaviour is a certain skepticism even towards one's most cherished theories" [3]. Poole and Rothman are concerned that research and advocacy on the same topic may lead to a loss of this skepticism [2]. However, competition, advocacy, and the ensuing controversy leads to scientific progress [3].

The role of policy makers is not to advance science, but rather to make appropriate decisions based upon what is known or believed to be true. This is not a trivial process, and I never suggested that it might be. Clearly, as Poole and Rothman state, "rights, liberties, economics and other non-epidemiologic issues are inextricably bound up in every public health policy question [2]." However, the justification or perceived need for a policy can come directly from

epidemiologic data. And that need may come to the attention of the policy maker much sooner if epidemiologists are willing to attract that attention. Epidemiologists must be willing to take a public stand about issues important to the public's health. I do not believe, as Poole and Rothman do, that by taking such stands an epidemiology policy forum "would be judged by its skill at policy analysis". On the contrary, I believe such a forum would be judged by its skill in bringing important problems to the attention of policy makers and by its success in influencing policy decisions.

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REFERENCES

1. Foxman B. Epidemiologists and public health policy. *J Clin Epidemiol* 1989; 4: 1107-1109.
2. Poole C, Rothman KJ. Epidemiologic science and public health policy (Letter to the Editors). *J Clin Epidemiol* 1990; 43: 1270.
3. Lakatos I. *The Methodology of Scientific Research Programmes*. Cambridge: Cambridge University Press.