



# Editorial

## March 2000 editorial

The basis upon which decisions are made about developing or modifying policy that affects nutrition related health is an obvious concern for our journal. That policy should be based on evidence is obvious, however the reality is that many policies are not based on evidence, but are motivated by implicit or explicit ‘political’ expediency affected by economics. Policy makers may – with some justification – say that there is never enough evidence to make decisions, or that if they consult widely they are confused by the different interpretations placed on the same evidence by different experts.

Over the last few years there have been a number of attempts to develop more standardized ways of reviewing the evidence, with a view to increasing the accuracy and objectivity of summaries of the available literature. The Cochrane collaboration has done a most valuable job in developing guidelines for systematic reviews of evidence from randomized controlled trials.

There are now sufficient guidelines for the optimal conduct of systematic reviews that there seems little excuse for opinion and biased reviews. Yet a good, well-argued, personal review can sometimes weave a very clear and helpful synthesis of a complex area, whereas a systematic review that follows a very standardized format may not. Guidance on the conduct of systematic reviews has mainly focused on data coming from randomized controlled trials, where the criteria for quality may be relatively simple: randomization; control group; blinding and adequate and complete follow-up. Where evidence comes mainly from observational epidemiology, the guidelines are less clear as to how to judge the scientific quality of studies, and how to weigh up different evidence from different types of studies.

Most would agree that the method of assessment of nutritional exposure should be valid, but what does valid mean, and how much deviation from perfect agreement between a test and reference measure is acceptable? What

is the correct way to express the relationship between the two measures? How do we ensure that the reference measure is a relevant and accurate proxy of the truth? In a systematic review that leads to a statistical summary of pooled data in a meta-analysis how do we know that the variation in the validity of the different methods used does not mask important differences between studies?

Where the relationship between nutrition and a health outcome is expressed in relative terms, such as the relative risk of outcome in different levels of exposure, how do we know that the range of exposure in the reference category in each study is the same, and does it matter? In a recent review of nutrition and cancer, when comparing meat consumption across different studies, the range of intake in the reference categories varied from no meat, to 1–2 serves a week. If the relationship between meat and outcome differs between non-meat eaters and those who eat 1-2 times a week, the difference in the relationships reported may simply reflect this variation in the definition of the reference group in relation to a threshold of effect. If there is, in addition, differential measurement error at different levels of exposure the measure of effect may be attenuated or exaggerated.

While the above may seem rather academic and unrelated to the real world of solving public health nutrition problems, if the quality of the evidence upon which decisions are made is poor, then the quality of the decisions made is likely to be poor. This may not always be true; experience and judgement are required, although both could be prejudiced. Some editors eschew opinion and insist that authors stick to reporting the ‘facts’ and leave the judgement as to what it may mean in a policy or practical sense to the reader. Our view in *Public Health Nutrition* is to seek some balanced opinion in the discussion, where the strengths and weaknesses of the study are discussed and the implications for public health and policy are considered.

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