

Watching the watchdogs

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Recently, the journals *Science* and *Nature* have retracted several papers from the same research group, acknowledging that the research was fraudulent.¹⁻⁴ This possibility is a nightmare for any editor. There are two traditional ways of avoiding the problem. The first depends on the rigour of the review process in which selected peers are asked to assess the quality of a paper and the contribution it makes to a field. The second requires that the authors provide a clear account of both the research methods used and the analysis of the data so that reviewers can assess the research process. These are standard procedures for any peer-reviewed journal. Both processes work well, although they are notably unsuccessful in identifying fraudulent research.¹⁻⁴

While these standard journal processes are well understood, and are usually honoured, there is less consideration of an additional issue: the formal rules that govern decision making by journal editors. What processes should be in place to ensure that editors do not make biased decisions in accepting or rejecting papers for publication? In this editorial we set out the processes we use in this Journal.

In a multidisciplinary field such as public health, it is, we believe, an advantage to have editors from different disciplinary backgrounds and our backgrounds in medicine (JL) and sociology (JD) could, arguably, hardly be more different. While we both have a broad interest in public health research methodology, one of us (JL) is more experienced in epidemiological research and the other (JD) is more experienced in research using qualitative methods. Because we make joint, face-to-face decisions about papers, both disciplinary and methodological preconceptions are tempered.

If a diversity of views in editors is an advantage in reducing bias, then so is a diversity of reviewers. For each paper sent for review, we select from our database three reviewers from different backgrounds to represent the public health fields with an interest in the topic of the paper. This might include, for example, a reviewer to comment on clinical issues in a health field, a reviewer able to comment on relevant policy issues and a reviewer expert in the research methods used. It is worth noting here that our reviewers are exemplary in providing assessment of papers where the substantive concerns may fall outside their present research interests but where we require specific information about aspects of a paper.

We place great weight on the views expressed by reviewers. These include the written comments for authors as well as the graded recommendation seen only by the editors. A paper may be classified as Accept, Minor revision, Major revision with or without re-review or Reject, but reviewers also indicate on a scale of 1 to 5 ratings of the contribution the paper makes to public health, aspects of the methods and the validity of the conclusions. Where reviewers are in agreement, we accept their decision. Where there

is substantial disagreement, we are required to make an editorial judgement. Given the important issue of research bias, if there is damaging criticism of the methods used or the validity of the conclusions, we might over-ride a positive recommendation by a reviewer with a different perspective and reject the paper. More often, if the paper addresses an important area of public health or is the subject of current debate, we might seek additional reviews to ensure that we reach an informed decision. We lean towards allowing authors to revise a paper to address concerns raised by reviewers and we are diligent in checking that each issue has been addressed, preferably in the paper itself. If a reviewer has asked to re-review a paper, it is returned to this reviewer.

There are issues that raise hackles and divide the public health community. In these (fortunately rare) cases the well-informed comments from one side may be strongly resisted by the other and it becomes very difficult to achieve a revision of a paper to address points raised by a reviewer. Such controversies are worthy of public debate and our preference then is to publish both opposing views. In these cases, we welcome further debate in the Letters section.

So far, we have considered only issues where the editors have no vested interest. A different procedure is needed when one of the editors has a conflict of interest, either because of professional or personal connections or because she is an active participant in a research field. That leaves the remaining editor making decisions in an area where she may not be well informed of the niceties of the field or the research method used. Our database of reviewers lists areas of interest and this provides a good guide. If the authors are asked to revise a paper and the remaining editor has difficulty in assessing whether a reviewer's comments have been addressed, she has the option of returning the revision to the original reviewer. Alternatively, and this applies to all difficult decisions, one or more members of the editorial board can be asked for their assessment. Membership of the editorial board is required to represent all States and Territories and to cover a diversity of disciplines and interests.

Finally, editors have to be able to justify their editorial decisions when called to account, whether publicly or in private. We are aware that there are periodic concerns about the balance of views represented in the Journal, with suggestions that we are favouring epidemiological research and neglecting research relevant to practitioners and policy makers. Given the confidentiality of the review process, it is difficult to counter these claims. We depend substantially on the papers submitted to us and these tend to favour certain topics and approaches. We accept for publication about 40% of the papers submitted to the Journal and papers addressing neglected topics do not necessarily survive the review process. Often the concerns are methodological and during 2006 we will be devoting some of our editorials to discussion of methodological approaches that enhance the chance of acceptance of papers.

References

1. Hwang WS, Ryu YJ, Park JH, Park ES et al. Evidence of a pluripotent human embryonic stem cell line derived from a cloned blastocyst. *Science*. 2004;303:1669-74.
2. Erratum. *Science*. 2005;310:1769.

3. Lee BC, Kim MK, Jang G, Oh HJ et al. including Hwang WS. Dogs cloned from adult somatic cells. *Nature*. 2005;436:641.
4. Erratum. *Nature*. 2005;436:1102.

In this issue

Given that many people will have had a recent holiday and a high proportion probably travelled by plane, it seems a good time to reflect on the updated assessment by Niels Becker and colleagues of the risks of venous thromboembolism (VTE) associated with air travel. This new paper was made possible by the use of Western Australian data on hospitalisations for VTE from 1981 to 1999, with linkage to data on airline passengers travelling to or from Western Australia in the same period. The increased size of the study and the capacity to adjust for age make this paper a significant contribution to the evidence. We can be reassured by the new and different data and analyses that, while the relative risk of VTE after air travel looks quite alarming, the absolute risk is extremely low. Incidentally, the risk is now shown not to be increased by hormone replacement therapy (HRT).

Claire Hooker and Simon Chapman's new and different contribution is an historical one, analysing the structural elements in tobacco control legislation covering the years 1960 to 1995 in New South Wales. The methods used in this paper include reviews of parliamentary debates and other sources as well as interviews with politicians from all parties. Tobacco control can seem to be obviously necessary and widely supported if you live in Australia, so it is opportune to be reminded of the obstructive and aggressive tobacco industry action here 25 years ago.

Circumcision is not 'new and different' but a perennial source of disagreement and heated debate, in which the arguments are not stable but shifting. In this case the debate was prompted by the paper from Brian Morris and colleagues arguing that the policy on routine infant male circumcision prepared by the Royal Australian College of Physicians Division of Paediatrics and Child Health was wrong and should be retracted. This Journal's contribution has been to publish the RACP summary statement and provide its website address so that readers can look at the detailed evidence and discussion, to follow that with Brian Morris's *Point of View* and then a thoughtful reflection by Juliet Richters.

The bulk of the papers (perhaps in the light of the contents of this section, a rather unfortunate term) are about Food, Folate and Physical Activity. They have been put together not because they start with the same sound but because of several related concerns: the inadequacy of folate consumption in several age groups, the apparent imbalance of food intake and energy needs in other age groups, and the role of physical activity in countering, or possibly even regulating, eating behaviour. The first of these papers, by Martin Tobias and colleagues, used the New Zealand National Nutrition Survey of adult fruit and vegetable consumption, and data from a WHO systematic review on the association of low vegetable and fruit intake with disease endpoints to calculate the impact of inadequate intakes. The answer was 6%, mostly from heart disease and stroke but also from cancer. Anthea Magarey and colleagues assessed intake similarly, using the Australian National Nutrition Survey of 1995, finding that only 11% of adults

met the minimum recommendations for both fruit and vegetables. Given those findings it is not surprising that Victoria Flood and colleagues found low serum B12 and low serum folate in 23% and 2% respectively of their older Sydney study population. Those with low levels of both folate and B12 had raised levels of homocysteine, which is a possible independent risk factor for vascular disease. The Letters section also discusses the thorny issue of fortification with folate.

Lyndsey Watson and colleagues report the use of folic acid supplements in the other age group of special interest – women of child-bearing age. They analysed data from two population surveys: the Victorian Survey of Recent Mothers 2000 and the NSW Child Health Survey of 2001. Fewer than 50% of the women took periconceptional folate: 36% in Victoria and 46% in NSW. Social differences in folate use followed the expected pattern of disadvantage, being associated with even lower consumption. Jennifer Utter and colleagues in New Zealand used a secondary analysis of the New Zealand National Children's Nutrition Survey to look at both nutrition and physical activity in Māori, Pacific and NZ European children. The aim of this latter paper was to see what opportunities existed for population-based interventions in the three groups. The paper summarises interesting data about the three groups of children and also demonstrates that some common beliefs as to the reasons for the differences cannot be sustained by the data. Less-than-ideal fruit and vegetable consumption crops up again, as does less-than-ideal access to appropriate physical activity.

The final paper in this group, from Kim Dalziel and colleagues, is an Australian and New Zealand collaboration combining primary care and economic evaluation to assess the effectiveness of physical activity counselling in general practice. It builds on an earlier cluster randomised trial of New Zealand's Green Prescription program in general practice and uses the cost per quality adjusted life year over full life expectancy. The Green Prescription program performed well in this analysis.

The final group of papers deals with cancer prevention and control. Caroline Shaw and colleagues report trends in colorectal cancer by ethnicity and socio-economic position in New Zealand for the last 20 years of the 20th Century. The complexity of the findings supports the subtitle of 'one country, many stories' and the increased social inequalities in this common cancer are worrying. The Brief Report by Michael Coory and colleagues demonstrates that factors other than early diagnosis improve survival from cutaneous melanoma in Queensland. Heather Williams and colleagues report the exceptionally high 'yield' of confirmed melanomas detected by the Lions Cancer Institute in Western Australia and suggest reasons why.

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