

# Peer-Reviewed Papers

## Retraction of the Voukelatos and Rissel paper on bicycle helmet legislation and injury

### Note from the Peer-Reviewed Papers Editor

As indicated in the November 2010 issue of the journal, the response from Dr Alex Voukelatos and A/Prof. Chris Rissel (V & R Response) to Tim Churches' letter concerning data errors in the original Voukelatos and Rissel paper published in August 2010, was not published in full. It was indicated to readers that there was insufficient time to further relay the reviewers' concerns regarding the V & R Response back to the authors. In particular, it appeared that the V & R Response presented new information from other researchers' literature to support their original conclusions that "mandatory bicycle helmet legislation appears not to be the main factor for the observed reduction in head injuries among pedal cyclists at a population level over time", rather than focussing entirely on addressing the data errors in the original paper. Moreover, the editors were concerned that all of the issues concerning correction of the errors highlighted by the reviewers were not adequately addressed.

Since November 2010, there have been two rounds of reviews of Dr. Voukelatos and A/Prof. Rissel's reply letter and response from the authors. Dr. Voukelatos and A/Prof. Rissel provided yet another reply. After much deliberation, the journal editors have decided to formally retract the publication by A Voukelatos and C Rissel, 'The effects of bicycle helmet legislation on cycling-related injury: The ratio of head to arm injuries over time', published in the August 2010 issue of the journal. This decision was made in compliance with the guidelines provided by the Committee on Publication Ethics (COPE) as ratified by the ACRS Executive Committee on 18 November 2010

(<http://www.acrs.org.au/publications/journalauthorguidelines.html>)

Retraction of the paper is made for the following reasons:

- a) The authors had been given the opportunity to provide a response to the Tim Churches letter, and had done so.
- b) The authors' response was sent out for peer review to five independent reviewers: three Australians, one American and one international reviewer from Germany. The reviewers' qualifications range across the professions of psychology, engineering, medicine and science, while their extensive expertise ranges across the areas of epidemiology, biostatistics, cycling safety, transport engineering, hospital and crash databases, and crash investigations. As a result of the review the authors were asked to further revise their response.

c) This revised response was again sent to the peer reviewers, but was found to still contain serious errors: it contained data errors (incorrect ICD-9-CM codes used); it excluded the first year of data from the original paper without good reason; it still had graphing errors (RTA survey data still shown in wrong place on graph); it failed to implement simple but essential adjustments (sample weighting and exclusion of hospital transfers), which are routinely done for analysis of such data; and it introduced new data (on cycling fatalities), which was not in the original paper and which was inappropriate to include in such a correction.

In retracting this paper, the journal is not trying to stifle scientific debate; however, in the absence of a response from the authors that addresses reviewers' concerns - in effect, that is free of data errors and that has no basic methodological flaws - the journal has no choice but to retract the paper and apologise for any inconvenience this has caused.

The authors have been offered the opportunity to submit a new paper on this topic for consideration for publication by the journal.

Prof. Raphael Grzebieta  
Peer-Reviewed Papers Editor