Reviewer's report

Title: Adolescents' health and health behaviour as predictors of injury death - A prospective cohort follow-up of 652,530 person-years

Version: 2 Date: 26 October 2007

Reviewer: William Pickett

Reviewer's report:

General

The authors have been professional in their responses to the reviewers, and in their presentation of cogent arguments for the decisions that they made.

In terms of my comments, I identified a couple of issues that they can choose to consider if they wish.

Well done; this is very nice work.

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Major Compulsory Revisions (that the author must respond to before a decision on publication can be reached)

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Minor Essential Revisions (such as missing labels on figures, or the wrong use of a term, which the author can be trusted to correct)

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Discretionary Revisions (which the author can choose to ignore)

I accept the argument that this study is strong, in that it is large, longitudinal and covers a long time period. The authors correctly suggest that this makes it kind of unique to our literature. I don't accept the argument that you need to have longitudinal data in order to infer causation. I guess that most of the existing literature that has emerged surrounding causes of injuries of this type is cross-sectional or case-control in nature. These types of studies are often classified as "second class" evidence compared to longitudinal data, but I don't agree with that if they are well done. With respect to causation, epidemiologists typically use the Bradford-Hill checklist (strength of association, significance, biological plausibility, dose-response, temporality, consistency) and not just the fact that results come from longitudinal data. Many other disciplines just focus on whether the findings come from longitudinal studies. I am an epidemiologist and I am biased towards our way of thinking. Cross-sectional studies have everything to address these criteria with the exception of temporality. So, this is a long way of suggesting that I was arguing that lots of good evidence exists about risk factors for injury; but agree that most of this does not come from longitudinal
analyses. I just place more value on the existing evidence than do the authors.

With respect to analysis of specific types of injury, what I was referring to was external causes of injury. It would be interesting to perform analyses of risk factors for motor vehicle injuries, then poisonings, then falls etc. Your numbers are in fact pretty tiny and I can see now that it probably makes sense to limit the analyses to the intentional/unintentional outcomes that you started with. However, it would be interesting to see if the results are consistent for the road traffic accident outcome that is common.

**What next?:** Accept after discretionary revisions

**Level of interest:** An article of importance in its field

**Quality of written English:** Acceptable

**Statistical review:** Yes, and I have assessed the statistics in my report.

**Declaration of competing interests:**

I declare that I have no competing interests.