Author's response to reviews

**Title:** Incidence of Self-Reported Brain Injury and the Relationship with Substance Abuse: Findings from a Longitudinal Community Survey

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**Author's response to reviews:** see over
Dear Editor

Please find attached a revised manuscript for consideration by BMC Public Health. We thank the reviewers for their comments and have attached a description of how each of the issues raised by them has been addressed.

Yours sincerely

Robert Tait
Reviewer David P Graham

No further revisions requested

We thank the reviewer for taking the time to review the changes made in response to the issues that he raised.

Reviewer Keith Yeates

Major compulsory revisions

a) Exclude all those who report any head injury at wave 1

b) Exclude all those who were unable to report on the duration of LOC at wave 1

c) Use hospitalisation as the key classification criterion for severity

a & b) At wave 1 the question asked was: “Have you ever had a serious brain injury where you became unconscious for more than 15 minutes?” The paper already reports only on those who answered ‘No’ to this question. We have clarified this in the “measures” section: “…the wave one survey: outcomes for the 428 persons who replied “yes” and the 295 who were “uncertain” have previously been reported and are excluded from this analysis of incident cases. (Twenty eight cases with missing data on this variable were also excluded.)”

c) We have re-analysed all data requiring assessment of severity and have used admission to hospital to define moderate head injuries. In summary the following changes have been made:

The abstract has revised mild and moderate rates of BI.

In the “measures” section the criterion for severity classification now reads: “Severity was defined as “moderate” for those who said that they had been admitted to hospital for head injury, with the remainder labelled as “mild”.”

Results paragraph two re-written i.e. 56 mild and 44 moderate cases (one case severity data missing) and the new incident rates are reported. Similarly paragraph three has the new values inserted.

Discussion, limitations subsection – reference to the six cases with unknown duration of LOC now deleted as duration of LOC is no longer relevant to the classification of severity.

Table 2 has been completely re-written with new values for moderate and mild cases.

Note: tables 3 and 4 and their associated analyses did not include severity and are unchanged.

Minor essential revisions

1) Add confidence intervals to the cells

Confidence intervals have been added to table 2 with respect to the classification of BI. We believe that it would be unwieldy to add 95% CIs to all values in the table – but this could easily be done if
required. The limitations subsection still acknowledges the issue of low cell counts for some cells. The text (see paragraph 2 of the results) includes 95% CIs for the key incident rates e.g. overall, moderate and mild cases. Again 95% CI for all rates could be added to table 2.

2) *Those with unknown length of LOC should not be rated for severity of BI.*
Now that we have used hospitalisation as the criterion for severity, this concern is no longer applicable.

3) *The title could be changed to reflect the “self-report” nature of the data.*
“Self-report” has been added to the title. It has also been emphasised in the text – i.e. Abstract sentence 3, Introduction final paragraph, Discussion, first sentence.

4) *In the Abstract you should state how clinical samples differ from community samples.*
Given the limited space in the abstract we have just provided the reader with an example of how clinical samples differ from community samples: “Factors associated with BI in community samples differ from those reported in clinical samples (e.g. typically traumatic brain injury with traffic accidents the predominate cause).” The issue was already described in detail in the main text.

We believe that these changes address all the issues that were raised.