Reviewer's report

Title: Road traffic injury surveillance in a low income country: translating numbers into action

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Reviewer: Shanthi Ameratunga

Reviewer's report:

The authors of this manuscript are commended for describing a process and initiative that has the potential to address what is a major public health problem in low- and middle-income countries. Overall, the article is written clearly and presents the rationale and background for the initiative well. I think there are many useful points made in this paper. If the authors are able to address some of the key challenges that relate to the current presentation, the article would be a valuable contribution to the research literature.

Major Compulsory Revisions:

The main difficulty the paper has - in its current form – relates to its inability to assure a successful process without including the evidence for this. As the authors note, the paper ‘aims to present the impact of setting up the surveillance system’ with formal data to be presented elsewhere. However, it is difficult to have one without the other when the authors make assertions regarding the success, validity and reliability of the RTIRP without presenting evidence to back this up. For many points made in the Results and Discussion sections (e.g., regarding validity, reliability, ability to direct road safety initiatives), it is important to have evidence. Without this, readers are expected to take these conclusions at face value.

Addressing the following specific points would also be necessary to improve the quality of the presentation.

- It is noted that “27% of trauma victims are dealt [sic] by one particular government hospital…”. It is not clear if the five hospitals / institutions provide data that can be considered population-based. That is, is it only these hospitals (and none other) provide trauma services for all RTI cases in a defined region (presumably Karachi)? If not, the assertion made is inappropriate.

- Even if these hospitals were the only hospitals admitting major trauma for a defined region, the surveillance system was established in an ED setting, with the data collection form indicating that minor injuries were included. As minor injuries can present to other settings, it is not clear how these 5 sites can provide a regional perspective with information that is generalisable to the spectrum of RTI. This requires clarification.

- The case definition for injury, criteria for deciding when a surveillance form would be completed, and how levels of injury severity are determined /
established, is not clear. This information and related coding information for variables such as ‘Clinical information, data on ‘Head and neck…’, etc, would need to be uploaded (potentially a data coder’s guide) at least as electronic files on to a journal website if readers are to interpret the approach implied.

• The authors note that ‘important outcomes’ included a ‘risk factor analysis of crash’. It is not clear how this was achieved with the data collection form and process described in the current manuscript.

• The discussion notes that data required ‘personal validation’. As noted earlier, the process of validating data and assuring its reliability requires elaboration with quantitative evidence of how these aspects were quality assured. This would help justify conclusions such as RTIRP providing data that was ‘most reliable’ (Discussion / first paragraph).

Minor Essential Revisions

• The limitations section of the Discussion requires greater care. It is currently presented as a justification for the current approach rather than an elaboration of the limitations themselves.

• The authors refer to 'private industry sponsorship' and a 'hosting institution' in the article. These should be specified.

• It is noted that the initial planning 'helped in defining goals' of the RTIRP. These goals should be specified in the article (currently not explicitly noted).

I hope that the authors can find a way of addressing these issues carefully so that their process as well as the impact they wish to present, is disseminated in a manner which can influence and assist others in similar positions.

Level of interest: An article whose findings are important to those with closely related research interests

Quality of written English: Acceptable

Statistical review: No, the manuscript does not need to be seen by a statistician.

Declaration of competing interests:

I am a Board Member of the Road Traffic Injury Research Network (RTIRN), a non-governmental international organisation. This is an unpaid role (doesn't involve financial profit). The goals of this organisation are aligned to the implicit goals of the initiative of this article. The secretariat of the RTIRN was formerly based in Pakistan (now in Mexico).