Reviewer’s report

Title: The national burden of road traffic injuries in Thailand

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Reviewer: Kavi Bhalla

Reviewer’s report:

This paper reports estimates of the burden of road traffic injuries in Thailand in 2004. The study is novel because the study uses 1) new/corrected/updated mortality data and 2) long-term disability estimates from a recent Thai study. The notable findings include that 1) 90% of the burden is from mortality; and the long-term disability burden is much higher than previously estimated (i.e. using old GBD durations and disability weights).

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MAJOR COMPULSORY REVISIONS

Unfortunately, in it's current form, the paper does not provide enough information about the two key inputs (updated mortality data and updated long-term disability estimates) to be able to judge the validity of the results. Both are currently listed as "in-press" in the references. The authors need to include the relevant information here from these studies. It is my understanding that Population Health Metrics does not restrict length of articles - so space should not be an issue.

The authors point out that 40% of deaths in the Thai death registration system are unspecified. The question that is pertinent to this study is how these were handled in the analysis. In particular, as the reader of such an article, I’d be interested to know if injuries (and road injuries, in particular) were over/under-represented in these deaths.

Similarly, with the long-term disability study. I assume that the finding that long term disability was previously under-estimated is a direct result of the updated numbers in Table 2. Is that right? If so, as the reader, I'd want to know more details about where these numbers come from.

Hospital data: It is usual for hospital data to have a substantial number of admissions coded to partially or unspecified external causes. Was this the case with the hospital data? If so, please clarify how was this handled.

Survey data: Does the HWS contain all-cause hospitalizations? all-injury hospitalizations? or road injury hospitalizations? - i.e. is the envelope for all-cause hospitalization, injuries or only road injuries? This was a little difficult to follow in the paper. Please clarify.

The authors point out that mortality contributes 90% of burden and that this is
substantially more than other countries. The authors present this as a key result of the paper but they do not adequately flesh-out the reasons for this fraction being so high in Thailand. The authors suggest that this is because Thailand has a large motorcycle fleet but so does Iran, which the authors list as a counter-example. I worry that the authors may have under-estimated the incidence of non-fatal road injuries.

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Over all, the paper has the potential to make an important contribution to the meagre literature on the burden of road traffic injuries, especially from S. East Asia. But the authors need to supply more details about the inputs into their analysis.

Thanks
Kavi

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

**Quality of written English:** Needs some language corrections before being published

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