Reviewer’s report

Title: Obesity-related health impacts of fuel excise taxation- an evidence review and cost effectiveness study

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Reviewer: Rose Omari

Reviewer's report:

This is an interesting paper that tries to examine the relationship between fuel price taxation and obesity. This is a relevant study in these days of increasing incidences of obesity worldwide. I have a few suggestions for improvement and clarity

Methods section

* In figure 2, it is not clear whether the authors were expecting an increase or decrease in BMI (just a change in BMI was stated)

* Line 180, it will be useful to mention the key terms that were used in the literature search.

* In section 2.3, in addition to several assumptions, a number of estimates or inputs were calculated, which were not introduced earlier. This makes reading difficult and confusing. This section may be better organized. A conceptual framework may help the reader know way ahead the kinds of data and estimates the authors would be focusing on and why. Later, in the Result section, Table 3 lists the inputs, but I think this should come much earlier.

* It may be appropriate to state the intended objectives of increasing the fuel excise tax- was this originally aimed at increasing physical activity or AT? This kind of information will be relevant and will help the reader to understand some of the assumptions.
Discussion

* The findings are currently largely based on assumptions and hypothetical scenarios. It will be interesting to see how close these findings are to reality or whether the authors intend to do this in future.

* As indicated in lines 545-546, in Netherlands where they have high prevalence of AT, fuel prices are also high. But in Australia the authors stated in the introduction section that fuel prices are relatively low even after increased taxation so can they explain better what accounts for the relatively modest increase in AT, which results in significant PA benefits as stated in lines 558-560

Conclusion

If the objective of increasing taxation is to increase PA or use of AT then I think governments will put structures in place to encourage the use of AT. However, if the tax is, for example, meant to raise money for a project that is not related to health then probably efforts will not be made to promote use of AT and hence health effects may be insignificant. Can this be a sound argument?

Are the methods appropriate and well described?
If not, please specify what is required in your comments to the authors.

Yes

Does the work include the necessary controls?
If not, please specify which controls are required in your comments to the authors.

Unable to assess

Are the conclusions drawn adequately supported by the data shown?
If not, please explain in your comments to the authors.

Yes
Are you able to assess any statistics in the manuscript or would you recommend an additional statistical review?
If an additional statistical review is recommended, please specify what aspects require further assessment in your comments to the editors.

Not relevant to this manuscript

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