Reviewer's report

**Title:** A comparison of gender-linked population cancer risks between alcohol and tobacco: how many cigarettes are there in a bottle of wine?

**Version:** 1  **Date:** 26 Oct 2018

**Reviewer:** Freddy Sitas

**Reviewer's report:**

I'd like to thank the authors for attending to the referees comments. The point is now made, about alcohol being a common exposure and smoking being rarer, but because of the respectively low and high relative risks, the numbers of cancer cases affected in the population turn out to be about the same. Which is an important public health message that needs to be communicated.

There is therefore one outstanding comment that requires careful thinking and rewording.

The point of the paper is that the number of cancers (not all deaths) caused in the population by a bottle of alcohol per week is about the same as smoking 5-10 cigarettes per week. This is not the same as saying a bottle of wine a week is as dangerous to an individual as smoking. So the statement / paragraph below (P16 Line 7) is misleading.

"The benefits of increasing public awareness of the risks of moderate drinking could therefore be immense. The majority of these women are currently unaware of the cancer risk, and we suspect may be surprised and perhaps horrified to learn that a drinking a bottle of Prosecco has the same risk as smoking ten cigarettes per week."

This is much more clearly articulated in the rest of the paper eg. : "Drinking one bottle of wine per week results in an increase in absolute lifetime risk of cancer equivalent to smoking ten cigarettes a week for women, and five for men."

The message ought to be better pointed to a Chief Health Officer about the opportunities for prevention at the population level rather than trying to describe risks at an individual level.

I suggest the title is changed to 'population cancer risk' rather than cancer risk, to avoid any misunderstandings by other readers and especially the media.
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.

Yes

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

No

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.

I am able to assess the statistics

Quality of written English
Please indicate the quality of language in the manuscript:

Acceptable

Declaration of competing interests
Please complete a declaration of competing interests, considering the following questions:

1. Have you in the past five years received reimbursements, fees, funding, or salary from an organisation that may in any way gain or lose financially from the publication of this manuscript, either now or in the future?

2. Do you hold any stocks or shares in an organisation that may in any way gain or lose financially from the publication of this manuscript, either now or in the future?

3. Do you hold or are you currently applying for any patents relating to the content of the manuscript?

4. Have you received reimbursements, fees, funding, or salary from an organization that holds or has applied for patents relating to the content of the manuscript?

5. Do you have any other financial competing interests?

6. Do you have any non-financial competing interests in relation to this paper?
If you can answer no to all of the above, write 'I declare that I have no competing interests' below. If your reply is yes to any, please give details below.

I declare that I have no competing interests

I agree to the open peer review policy of the journal. I understand that my name will be included on my report to the authors and, if the manuscript is accepted for publication, my named report including any attachments I upload will be posted on the website along with the authors' responses. I agree for my report to be made available under an Open Access Creative Commons CC-BY license (http://creativecommons.org/licenses/by/4.0/). I understand that any comments which I do not wish to be included in my named report can be included as confidential comments to the editors, which will not be published.

I agree to the open peer review policy of the journal