Reviewer’s report

Title: The economic costs of alcohol consumption in Thailand, 2006

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Reviewer: Carolina Barbosa

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This is another important contribution to the widely conducted studies of the social costs of alcohol consumption. In terms of methodology, two main points make this study an important contribution and these are the inclusion of HIV/AIDS in health care and premature mortality costs and the inclusion of the costs of presenteeism. The latter is a very important contribution and it would be interesting to see exactly how these costs were calculated.

- - Minor Essential Revisions

1) Abstract, Background, pg. 3: The authors say that “there has never been a well designed study which estimates the economic cost of alcohol consumption in developing countries”. However, there is, for example, a study of the social costs of alcohol in South Korea, which is another middle income country: Chung W, Chun H, Lee S. Socioeconomic costs of alcohol drinking in Korea. J Prev Med Public Health 2006; 39: 21–29

2) Page 5, missing space between reference and new sentence “industrialized nations. [5-9]Although the discrepancies in the estimation method and cost”. This happens in many other instances, please correct.

3) Page 7, AAF: The explanation of the two approaches for the calculation of AAF suggested by the WHO International Guidelines is not clear in the manuscript. Also, it is not clearly explained the approach used for the different categories of costs. It is mentioned: “the first and most straightforward method is to directly…”, but an explanation of the second- the indirect approach, should be made before introducing the AAF calculation based on RR and prevalence. Example: The second method for estimating an AAF is the ‘indirect’ method whereby estimates of the Relative Risk of particular disorders for different levels of alcohol use are combined with prevalence data on the number of persons consuming at different levels of use. This method is generally applied to conditions partly caused by the effects of long-term consumption, mostly diseases.


5) Page 10: Explain what you mean by a top-down or macro costing technique. Something like: For gross costing the intervention is broken down into larger intermediate products for which resource use is determined. This top down costing allocates a total budget to specific services.

6) Page 11: It would be good to provide a reference to the Human Capital Approach. For example: Rice D, Cooper B (1967) The economic value of human life. American Journal of Public Health 57: 1954-66. Also, the paragraph could follow as: The Human Capital Approach was used to estimate the costs of productivity loss due to premature death. In this approach wages are assumed to be equivalent to the value of an individual’s productive worth and used as a monetary conversion. This method usually does not take into account those who are not in the workforce, such as homemakers, retired, students and children. Despite this, a value can be placed on some activities by estimating the cost of hiring a market replacement for each individual function. The cost of productivity loss due to mortality was calculated as the product of the total number of deaths attributable to alcohol, by age and gender, with the present value of age and gender adjusted future earnings. A discount rate of 3% was applied. The number of deaths attributable to alcohol was calculated by combining the total number of deaths, by gender and age, with the gender and cause-specific AAFs (see Table 1).

7) Page 17, last paragraph: The authors have: “..may not be inappropriate…”, please correct to “…may not be appropriate…”

8) Discussion: A limitation that could be pointed out is the fact that cost-of-illness and social costs studies can demonstrate the scale of health problems, but they are limited in determining how resources are to be allocated because they do not measure the individual benefits or compare interventions in terms of their costs and outcomes. An extension of this work in Thailand could be the use of the estimates from this study to inform on the allocation of scarce resources for alcohol interventions, such as prevention, treatment and enforcement. Therefore, the results here presented can help with the calculations of the costs used in full economic evaluations of alcohol interventions.

9) It is not clear if any of the AAFs were calculated by age, as the AAFs presented in table 1 do not depend on age.

10) In table 1 an extra column could be added so as to provide the reference for where the AAFs are taken from or the reference used for the AAF calculation (relative risks/ meta-analysis source), for each specific condition.

11) It would be good to have a table with information on resource use and unit costs for each category. For example, for police costs it would be good to see the number of crimes and offences related to alcohol as well as the unit costs used for these. The same should be conducted for the other categories.

- Discretionary Revisions

1) Some of the writing was a bit difficult to follow. It would be important to review the manuscript regarding this issue. I give one example, but this needs to be
corrected throughout all the body of the text (with special attention to the first two paragraphs of the discussion).

Example: Abstract, background, pg 3: The authors have: “The existing evidences indicate that adverse consequences of alcohol impose substantial economic burden on the society worldwide”; it would read better something like “There is evidence that the adverse consequences of alcohol…”

2) Methods, Page 6: It would be nice to have a more objective definition of the costs used in the study, something like: In economic terms, social consequences are the sum of private and external consequences that can represent a cost or a benefit. Private alcohol consequences are the consequences accruing to the individuals engaged in the drinking activity while external consequences are consequences of an action by drinker(s) that fall on others. This study is concerned with the external costs of alcohol consumption, henceforth referred as “social costs”.

3) Methods, Page 6: The second paragraph is a bit confusing. Please take into account the comment given above and that this paragraph should be rewritten. For example write the above together with: This study focus on the costs associated with the negative consequences of alcohol consumption and, therefore, any benefits related to a moderate consumption, such as CHD, are excluded from the analysis. This exclusion is consistent with a gross cost methodology. However, the impact on the results of the use of net costs, where the benefits of alcohol consumption are included, is assessed in the sensitivity analysis.

4) Page 6: The authors say “This is surprising as it has been found that about 31% of the Thai adult population has been classified as drinkers”. However, not all alcohol consumption is associated with alcohol problems and this statement needs to be put into context. Also, 31% is very low and what is surprising and more important is the level at which those 31% are drinking. For example, write something like: It has been found that 31% of the Thai population drinks alcohol. Even though this is not a big estimate, when compared to other countries, the level of heavy drinking is a cause of concern. From the 31% that do not abstain, 16.6% of males and 2.1% of females drink heavily (> 40g/day…).

5) Page 8: Under the heading “Direct Cost”, provide a breakdown of the direct costs assessed, in the same way as it was done for indirect costs. Example: Direct costs are divided in…

6) Page 7: The authors said: “…did not include intangible costs”. I would like to mention that it is true that past and also some current studies call pain and disutility costs “intangible costs”. Intangible costs are costs that when reduced do not release production or consumption resources for other uses making it extremely difficult to place a value upon. In contrast, tangible costs are the costs, which when reduced, yield resources which are then available to the community for consumption or investment purposes. However, there is now literature that argues that pain and disutility are not “costs” (that is, resources denied to others) and are not strictly intangible as they are measured and valued, through the utility or willingness-to-pay approach. The use of “intangible costs” is left at the
discretion of the authors. However, it would be good to have an example of the costs the authors refer to. For example: …intangible costs, such as pain and disutility…Also, I am not sure which type of ethical limitations the authors refer to.

7) Page 10, last paragraph: shouldn’t “dividing” be “multiplying”?

8) Page 14, 2nd paragraph: The authors wrote: “It was found that the choice of discount rate was the most significant because it influenced the estimated cost of productivity loss, and hence, the total cost.” I would suggest something more like: The parameter with the highest impact on the results was the discount rate. This is because the discount rate directly affects the costs due to productivity losses, which is the category with the largest alcohol-related costs.

9) Conclusion, last sentence: I would suggest taking out of the last sentence the following “…that is they need to make a better balance between cost and revenue generated from alcohol”. For example, I would suggest: This study provided evidence for the economic burden of alcohol consumption in Thailand. It is hoped that the findings provided will stimulate discussion and improvement of alcohol policy in Thailand.

10) Methods, pg. 6 & discussion: The authors say that the counterfactual scenario is the inexistence of alcohol. However, while this is the assumption used in all cost-of-illness studies and social cost studies, it could be pointed out that this is a strong assumption and not realistic. This could be presented in the discussion.

Level of interest: An article of importance in its field

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.

Declaration of competing interests:

I declare that I have no competing interests