Reviewer’s report

Title: Quantifying harms to others due to alcohol consumption in Germany: a register-based study

Version: 0 Date: 12 Nov 2018

Reviewer: Ingeborg Rossow

Reviewer's report:

This study provides estimates of the magnitude of harms to others due to alcohol consumption in three areas; FAS/FASD, road traffic accident fatalities, and interpersonal violence fatalities. The topic is highly important and the study findings add to a rather limited literature on severe harms due to others' drinking.

While the estimates are given for one country and year, the magnitude of the estimates and the methods used to obtain the estimates, are clearly of interest to a broader audience. My comments and suggestions for revision are as follows:

1. Title: I suggest 'review' is skipped in the title. As it is, the inclusion of 'review' in the title implies a more comprehensive and/or systematic review of the literature than what is presented in the introduction as background and study motivation.

2. P 4, lines 8-10: the statement ("few attempts") should have been backed up by a systematic mapping of the literature, I suggest some re-formulation of this sentence.

3. P. 5, lines 8-14. Please, state here why these three areas were chosen.

4. P. 7, lines 2 -10. Please provide the estimated quotient for Germany.

5. P. 8, lines 16-18: is the statement "[..] gender- and disease-specific AAFs were estimated." correct? However, gender (and age) specific AAFs are identical in Table 2, suggesting one overall AAF. This is also the case in Table 3. Please explain or revise.

6. P. 8, lines 23-49. AAF was estimated for non-drivers only, and non-intoxicated drivers killed by intoxicated drivers were not included. Why?

7. P. 9 lines 41-44 states: Only ICD-10 codes which specifically addressed victims or third parties were selected.

a) I assume this means victims of injuries that, with some likelihood, can be attributed to an intoxicated person. However, Table 1 includes numerous ICD-10 codes for drivers of motor vehicles injured in collisions where it seems unlikely that intoxication of the other party could
have led to the accident, as for instance: - collision with pedestrians or animals (e.g. V30.5), - collision with railway train (e.g. V45.5), or - collision with fixed or stationary object (e.g. V27.4). Please explain or revise.

b) ICD-10 codes for assaults include also neglect and maltreatment. I suggest these are skipped. The number of deaths caused by neglect or maltreatment are probably negligible and the role of alcohol in neglect/maltreatment may well differ from that in interpersonal violence.

c) According to Table 3 there were a total of 368 deaths from interpersonal violence in Germany in 2014. However, according to other sources (e.g. World Data Atlas) the homicide rate in Germany in 2014 was almost twice as high, i.e. 0.9/100,000 population or about 720 homicides. Please explain or revise.

8. P. 11, lines 5-8. Please also state the estimated number of FAS and FASD (not just the rates) to present comparable figures across the three morbidity/mortality domains.

9. P. 12, lines 1-47. The authors note that their estimates of FAS/FASD are substantially higher than earlier estimates. Some further discussion is warranted regarding how this discrepancy may be explained.

10. Discussion: While the morbidity (FAS/FASD) figures and the mortality (road traffic fatalities and violence fatalities) figures are not directly comparable, I miss, nevertheless, a discussion of the relative importance of alcohol's harm to others across these three domains. At least, given that the relative (if not absolute) magnitude of the estimates are fairly valid. Considering the short life expectancy among people with FAS, the figures provided in this study, seem to suggest that alcohol use in pregnancy and in road traffic account for much more harm to others than alcohol-related violence.

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

No

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

Not applicable

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

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