Reviewer’s report

Title: Association of socioeconomic and behavioral factors with adult mortality: Analysis of data from verbal autopsy in Addis Ababa, Ethiopia.

Version: 3 Date: 26 July 2012

Reviewer: Georgie MacArthur

Reviewer’s report:

This paper focuses on an important topic and the authors have revised the manuscript in response to some of the previous comments. However, I suggest that several points are addressed.

Major compulsory revisions

1. In the abstract, it would be helpful to add that verbal autopsy was used to identify cause of death and frequency of risk behaviours.

Introduction

2. Overall, the introduction would benefit from addition of detail to make clearer the prevalence and aetiology of communicable and non-communicable diseases and the association between the risk behaviours examined and diseases assessed. The introduction could also provide greater background to support the focus on specific diseases considered in the paper.

3. The authors could state the health consequences of Khat – this would then provide a more effective context to the findings reported.

4. The first sentence of paragraph 4 needs support from literature.

Methods

5. In the risk behaviours section, the measure of frequency of use is reported only for tobacco use. The measures of frequency of alcohol consumption and khat chewing measured should be provided - was this at least once per day as for tobacco, or other?

6. The authors should highlight that analyses focused on particular diseases and why.

7. Greater detail is required regarding statistical analyses – e.g. describing univariable and multivariable regression analyses.

Results

8. Please add percentages of deaths alongside numbers in paragraph 2.

9. Additional points could be noted e.g. highest frequency of use of alcohol evident among those that died from poisoning and chronic liver disease. Frequency of khat is also greater among those that died of digestive diseases – similarly tobacco and chronic liver disease.
10. p values should be reported for overall association e.g. between age and the disease rather than for individual subgroups (Tables 6 and 7)

11. In the section ‘association between socioeconomic and health risk factors with causes of mortality’ there needs to be greater consistency in data presented – data in Tables 6 and 7 are only described in relation to HIV, malignancy and CVD - whereas intentional injuries/ TB are discussed earlier in the paper. Data regarding age, sex and education are not provided for all of the chosen diseases (Tables 6 and 7) and tobacco use is included only for TB (Table 8).

Discussion

12. Overall, the discussion would be strengthened by explaining the meaning and implications of these results to a greater extent with support from the literature.

13. The authors also need to include discussion of the strengths and limitations of their study in sufficient detail and the latter need to be acknowledged e.g. accuracy of lay recall; knowledge of duration/temporality of substance use; lack of data re co-morbidity etc. The interaction between the risk behaviour and SES variables analysed could also be considered.

14. There is repetition of results e.g. in paragraph 4 and in the conclusion section. The authors suggest causation in paragraph 4 which cannot be inferred from this study. Also please check reference [18] as the authors of this paper do not report a causal association as stated.

15. The final paragraph before the conclusions section makes statements which require support from the literature and this should be addressed.

Minor essential revisions

1. The abstract would benefit from adding percentages of types of deaths; and inclusion of data regarding overall frequency of substance use.

2. 95% CI should be given with AOR (in abstract and throughout paper).

3. The first sentence of the abstract conclusion should relate more closely to the study findings.

4. The first sentence of the 2nd paragraph in the introduction needs restructuring as it does not make sense at present; also do you mean ‘studies’ rather than trends here?

Results

5. It would be helpful to highlight a summary point re Table 2 i.e. alcohol was the substance most frequently used; followed by tobacco then khat; and all more frequent among males.

6. 5. It seems that in Table 1 there is missing data re occupation – do you need to note or add a category for unknown?

7. Tables 3-5 please add n(%) labels to column headings; please amend non alcohol use to no alcohol use.
Level of interest: An article of importance in its field

Quality of written English: Acceptable

Statistical review: Yes, but I do not feel adequately qualified to assess the statistics.

Declaration of competing interests:
I declare that I have no competing interests