Reviewer's report

Title: Trend and causes of adult mortality in Kersa Health and Demographic Surveillance System (Kersa HDSS), eastern Ethiopia: verbal autopsy method

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Reviewer: Rohina Joshi

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The manuscript Trends and causes of adult mortality using Verbal Autopsy in Kersa HDSS, Eastern Ethiopia describes the levels and causes of mortality in the age group 15 and above over a period of 6 years. It is a useful article which highlights the persisting issue of infectious diseases in Ethiopia and the rise of non-communicable diseases. My comments are below:

1. Adult mortality is described as above 15 years of age which is not the usual definition of adult death. Why was this cut off chosen? Why not include adolescents in the analysis or restrict it to adults 18 and above?

2. Page 3, line 30 requires a reference

3. Page 3, line 41 mentions 'studies in developing countires .....', however, the next sentence has only one reference. Either provide more references or mention, 'A study...' in line 41

4. It would be useful for the readers to review the questionnaire - could this be made available online?

5. In the methods, it is not clear as to what level of training the interviewers were given and who the VA interviewers were - were they members of the community? part of a research group? what was their educational qualification?
6. Similarly, what training were the physicians given? did they use an algorithm to arrive at a cause of death?

7. The methods mention 5% re-interviews, what was done with the collected data? Was it cross-checked with the initial data set? there is no mention of the utility of the re-interview in the manuscript.

8. the data analysis section mentions that undetermined and unspecified causes were not included in the numerator for the calculation of CSM. were they removed from the denominator as well? If not, that would give misleading CSMF, given 30% of deaths did not have a specific CoD.

9. Were there any refusals? Any deaths for which a VA could not take place?

10. What was the classification of CoD based on? Was it ICD-10? If so, it would be useful to include that in the table. If not, please specify the classification used.

11. The study has a high proportion of unclassified deaths (18.1% + 9.2%) - please comment.

12. The inconsistent pattern of mortality over time is not well explained - is there any migration? Was a census conducted in the intermediary years? Further clarity is needed.

13. In the abstract, 9.2% of all deaths are attributed to gastrointestinal disorders, however, table 3 mentions 8.8%. what is the correct figure?
14. The article needs a thorough spell and format check.

15. The figures need to be formatted well.

16. Figure 3 have spelling errors. All abbreviations need to be spelt out clearly.

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