Reviewer’s report

Title: Exploring Diabetes Burden in Mongolia Through a National Knowledge, Attitudes and Practices Survey

Version: 2 Date: 6 December 2012

Reviewer: Jodie Katon

Reviewer’s report:

Overall this paper presents interesting and compelling data describing knowledge, attitudes, and practices surrounding diabetes in Mongolia. As the authors indicate the burden of diabetes is increasing globally and this growth appears to be most rapid in low- and middle-income countries. Information such as that presented in the article is crucial for developing and implementing appropriate and effective responses to diabetes and other non-communicable diseases. However, there some specific concerns regarding the clarity of the manuscript and presentation of the data, which need to be addressed in order to improve the clarity and readability of this article. Detailed suggestions are included below by section.

Title: The first part of the title “exploring diabetes burden” creates the expectation that the article will present data on the burden of diabetes (incidence, prevalence, diabetes related morbidity and mortality). This reviewer suggests rewording the title to exclude this phrase. One suggestion: Exploring Knowledge, Attitudes, and Practices Related to Diabetes in Mongolia: A National Population Based Survey

Abstract:

Minor essential revisions
1. In the last sentence of the methods section the authors use “general” and “generally.” Using both words in the same sentence is awkward, and the sentence actually might read better without either. This same phrasing is used elsewhere in the paper and should also be corrected.

Major compulsory revisions
2. The first sentence of the Results section mentions the correlation between burden of disease and low knowledge levels. However, the data presented does not examine burden of disease (incidence, prevalence, etc). The Results section needs to focus exclusively on the results from this analysis of this particular dataset.

3. Conclusions: The final sentence requires clarification. What are these groups? Removing this sentence all together and concluding with the recommendation in the second sentence for increased health education would make a stronger conclusion.

Introduction:
The Introduction is generally well written. The authors make a strong case for the importance of this study and clearly state the objectives. There are some minor changes that I am recommending to improve clarity.

Minor essential revisions
1. The first paragraph includes the phrase Low and Middle Income Countries and specifies the acronym LMIC, since this is not used anywhere else in the paper I would not include the acronym.
2. In the second paragraph I would reword the first sentence “Diabetes is no longer only a disease of the rich, old, and sedentary”
3. I would also specify the second half of the second sentence as “the majority of these deaths occur…”
4. In the third paragraph the “respectively” construction of the second sentence is awkward and I recommend either breaking this sentence into two sentences or re-working it.
5. The use of the word “information” twice in the last sentence of the 4th paragraph is redundant. I suggestion removing the second occurrence of the word.

Methods: Like the Introduction this section is generally well written, and I am suggesting only minor edits.

Minor essential revisions
1. The last sentence of the 4th paragraph needs to be revised including the use of general and generally in the same sentence. I suggest rewording the last half to “practices around NCDs and their risk factors, and then a more vertical approach explored individual disease knowledge, attitudes, and practices.”
2. Be sure to consistently use past tense when describing what was done, but present tense when describing what is presented in the paper e.g. “the most common five are reported in the paper.”
3. The use of the words “explore”, and “exploring” in this section and the results section is awkward. I suggest limiting the use of this term and the related sentence constructions throughout the paper.
4. For the data analysis I believe that p>0.05 is a typo and should be p<0.05, also please state whether one or two sided tests were used.
5. Covariables should be covariates.

Major compulsory revisions
6. Nowhere in the Methods section is the case made for separating Table 1 or Figure 1 by sex. Please explain why this was done.

Results: This section could be much more concise and the reviewer also has some questions regarding how the data is presented.

Minor essential revisions
1. Starting each section of this section with “Exploring...” or “in order to explore”
is unnecessary. I would remove these introductory sentences and merge these paragraphs.

Major compulsory revisions

2. Please provide in the Methods section an explanation for why the sample was separated by sex in Table 1 and Figure 1. Sex certainly appears to be associated with the outcomes, but so do the other demographic characteristics.

3. I would only have one paragraph per Table. There are four paragraphs describing the data in Table 1 and nearly as many for Table 2.

4. This reviewer does not understand why in Table 1 the percentages for the male and female columns are percentages of the total as opposed to column percentages (e.g. percent of females 15-24 years old). Please explain this choice.

5. When describing the age distribution the authors state that the majority of participants were 15-24 years old. In fact it appears that an approximately similar percentage were 25-34 and 35-44. A truer statement might be that the majority of participants were <45 years old (around 80% were <45 years old by my calculations).

6. Also, the use of confidence intervals for percentages needs to be consistent between the tables and the text. If these are not included in the tables do not include them in the text. When discussing barriers to prevention methods on page 14, the last sentence stating that “this association was independently significant” is not supported by any of the data that is presented. If an analysis was run that would support this statement please include it in the results section.

7. Information regarding how questions were asked (e.g. Barriers to prevention methods were then explored, with participants being asked open-ended questions) belongs in the Methods section.

Discussion:

Major compulsory revisions

1. The first paragraph only presents data on diabetes burden among males in Mongolia. Please contrast this with data on females. It seems based on the second paragraph that the point is to link low levels of knowledge among males and urban dwellers with the high risk of diabetes in these groups. This concept needs to be more clearly stated.

2. Including the comparison to India in the fourth paragraph is confusing.

3. The fifth paragraph seems to imply that screening and education are similar constructs. While these are related I would be more explicit regarding the potential connections.

4. Removing the last two paragraphs of the conclusion would strengthen this section. The final two sentences of the first paragraph should be re-worded into a single sentence.

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