Reviewer's report

Title: Diabetes mellitus type 2 in urban Ghana: characteristics and associated factors

Version: 2 Date: 26 October 2011

Reviewer: Isabela Bensenor

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Author's response to reviews
Title: Diabetes mellitus type 2 in urban Ghana: characteristics and associated Factors

I read the answers of the authors and the response to 3 of my comments:

Major points:
Comment 3. It is a cross-sectional study evaluating diabetes and hypertension and its associated factors and not really a case-control analysis. All the information was collected at the same moment. This needs to be changed in the methods section.
Response: We respectfully disagree. The study is a case-control study in that cases and controls were purposefully recruited. The fact that information was collected at the same moment does not affect this study design.

I cannot agree with the response of the authors about the design of the study. The inclusion of cases and controls do not imply that this is a real case-control study. A case control study can evaluate causal associations of risk factors and diseases. The present paper do not evaluate causal relationships but only bring information about diabetes and associated factors in a cross-sectional way. I am afraid I cannot accept the response of the authors.

Comment 6. I do not think it is necessary to include an analysis for diabetics with or without hypertension. I would like to see the values only adjusted by age and after the multivariate to evaluate the participation of the other associated factors beyond age.
Response: We respectfully disagree with omitting the important and interesting stratification by hypertension, not lastly because diabetes risk factors have different weight in the resulting subgroups (Tab.2 ). Associated factors adjusted only by age are presented in Supplementary Table 1, legend.

It is a manuscript about diabetes. So, I do not think that makes sense to divide
the analysis in diabetes with hypertension, without hypertension and only hypertensive people. Maybe, you can present data about diabetes according to the presence or not of hypertension, but I do not think that you can include a column only with hypertensive patients. Again, I disagree about this point.

Comment 8. Table 3 shows the same data of table 1 presented in a different way but essentially they are the same. The authors could think about to use ANCOVA in table 1 (rather than Mann-Whitney-U-test) and adjust all continuous variables according to age.

Response: Tab. 1 shows the actual results and univariate comparisons, Tab 2 (formerly Tab. 3) gives adjusted odds ratios from multivariate analysis. The new Supplementary Table 1 displays age-adjusted comparisons of data (stratified by gender). Results of age-adjusted comparisons irrespective of gender are given in the legend. All tests have been performed as non-parametric analyses adjusted for age (quantile regression for numeric and logistic regression for binary variables); ANCOVA assumes normally-distributed residuals.

I think that table 1 should present the age-adjusted data and not crude data. Crude data could be presented in a supplementary table. So, I think it is better to change the table 1 and the supplementary table 1 as they are in the present version of the paper.

Minor points
Comment 3. Part of the conclusion is also generic and not related to the objectives of the paper.
Response: We note the reviewers criticism but think that a conclusion may also include more generic statements considering the overall context.

I strongly disagree. Conclusions have to be focused on the objectives of the study and cannot be generic.

Level of interest: An article of outstanding merit and interest in its field

Quality of written English: Acceptable

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'