Reviewer's report

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

**Version:** 1  **Date:** 29 August 2011

**Reviewer:** Isabela Bensenor

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Comments on BMC-Ghana-5710725425869164_article.pdf

Major Compulsory Revisions:

1. The study is interesting because show some results of diabetes and hypertension in Ghana permitting comparisons with other studies and evaluating the consequences of urbanisation in African countries. However, it is a study using a convenience sample and the main consequences are an imbalance among the groups with diabetes and hypertension patients being older than controls, and a higher frequency of women in the sample. This is an important point that should be better discussed in the limitations of the manuscript.

2. In the methods section, it is necessary to explain with more details the statistical analysis including more information about the variables included in the multivariate model. Is it the same model used for diabetes, hypertension, diabetes with and without hypertension?

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.

4. Table 1 is too long and have to be shortened. Some variables could be dichotomized as occupation that can be divided in employed/unemployed, and formal education and literacy that could be combined together. Data about weight is not necessary, nutritional behavior can be described only in the text. These are some examples to guide the authors. In the place of family history of diabetes and hypertension it should be better to add the final variable diabetes and hypertension (including history and levels of fasting glucose and blood pressure). I think the authors could include data about body fat using BIA and only comment in the text about body fat using skinfolds that is less reproducible, but it is not necessary to include both data on table 1.

5. Other important point is to compare the results according to gender in table 1. You should include only diabetics, only hypertensives and both for all tables.

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.

7. Table 2 have to be shortened with the collapse of the groups with small number of participants.

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.

Minor Essential Revisions:

1. The first sentence in page 12 is confuse.

2. The last paragraph in page 13 is not based on data of the study being excessively generic.

3. Part of the conclusion is also generic and not related to the objectives of the paper.

**Level of interest:** An article of importance 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'