Reviewer's report

Title: Prevalence of the metabolic syndrome in a rural population in Ghana

Version: 2 Date: 6 August 2012

Reviewer: jin-an zhang

Reviewer's report:

Although there are no major revisions needed for this paper, there are many minor revisions needed which make the paper low for the publication, priority has been raised for strictly revisions for publication.

1. This paper looks at the prevalence of metabolic syndrome in a rural population in Ghana. Where 228 subjects were randomly recruited between age of 34 and 65 years old. The sample is small.

2. Considering the average life expectancy in Ghana being 64 years, the study population chosen is relatively older population, it is true that many studies shows the prevalence of metabolic syndrome increases with age, but using only two categories of age 35-44, and 45-64 is relatively small sample size, why younger population were not involved?

3. Risk factors of chronic diseases such as smoking, alcohol intake, were not well defined, i.e. how many packs of cigarettes used per day? Or amount of alcohol intake as these might affect the results, Onat et al presents a prospective study found a ‘protective’ effect against developing MS of smoking 11 or more cigarettes a day among Turkish women after a mean 5.9-year follow-up#Atherosclerosis.2007#192#2##380-388#. So smoking might induce weight loss and contribute to protection against abdominal obesity. so it is better to categorize smokers by amount of cigarette used per day.

4. The family history of hypertension and diabetes was not put into account in this study, and this might have influenced the results, as family history of diabetes and hypertension has significantly higher prevalence of MS and its confounding factors as compared to their counterparts.

5. In result section, page 9, the last paragraph where the author explains the results of table 5, the author explains the young were 70.2%, but then he added while males where 94.0%, aren't males also divided in younger and older group? 70.2% includes both young females and males. In the same paragraph the last sentence should be reviewed so that could make the explanation more understandable.

6. In statistical analysis, there is no explanation for P value for two-sides or one-side.

7. There is too much statistics and not enough interpretation of what the results
mean.

8. Presentation needs to be improved with multiple spelling errors, and syntax and grammatical problems. For example, in discussion section, the word differential should read difference instead, this word was used in this paragraph more than one time, but the correct word should be difference.

9. The format of references is not consistent.

Level of interest: An article of importance in its field

Quality of written English: Acceptable

Statistical review: Yes, and I have assessed the statistics in my report.

Declaration of competing interests:

I declare that I have no competing interests.