Reviewer’s report

Title: The prevalence of metabolic syndrome and vascular risk factors in adults in southern China

Version: 1 Date: 9 September 2011

Reviewer: Chee Weng Fong

Reviewer’s report:

• Major Compulsory Revisions

1. In the DISCUSSION section, the limitations of the study should be included. For instance, did all household residents who participated in the study comply with the fasting duration of at least 8 hours overnight? Are there missing values on the components of the MetSyn? Are there differences in the response rates of the urban and rural participants that warrant a check to see if selection bias exist between the two groups of participants?

2. In the METHODS section, it was mentioned that “a third of the sampled households (2,424 households with 9,509 all age residents) were randomly selected for dietary intake examinations, as well as blood sample laboratory test including fasting glucose and lipids profiles. Therefore, a total of 6,468 participants aged 20 years or above were included in the present analysis”. Does this mean that all members aged 20 years or above of each of the 2,424 households make up the 6,468 participants? Are there any household residents aged 20 years or above from any of the 2,424 households who did not participate? If so, are there any differences in those who participate and those who did not that would impact on the MetSyn results generalised for all adults aged 20 years or above in Guangdong in the study?

3. In Table 1, the sample numbers for the different age groups (20-, 40-, 60- and total 20+) by gender and region (urban & rural) should be included.

• Discretionary Revisions

1. In the METHODS section, it was mentioned that blood pressure measurement was based on reference [13]. It would be good if the specific cut-offs for defining hypertension are indicated for clarity.

2. In the METHODS section, the authors could clarify on the specific attributes (e.g. age, gender and urban-rural distributions) of the Guangdong population (based on census and associated administrative data) that were used in the post-stratification weight of the sample.

3. In Table 1, data on education, tobacco consumption and alcohol consumption could be omitted as these have no bearing on the MetSyn analysis of the study unless the authors want to include additional analysis on MetSyn by educational
inequalities or lifestyle behaviours (smoking and drinking).

4. Table 2 and Table 3 can be combined into a more holistic table that provide readers information on the prevalence of the individual MetSyn components and MetSyn by age groups for the two genders by urban and rural regions.

5. Figure 1 would be more complete if an additional panel showing the number of MetSyn components by gender for both the urban & rural regions (combined) is included.

**Level of interest:** An article whose findings are important to those with closely related research interests

**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.