Reviewer's report

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

Version: 1 Date: 23 September 2011

Reviewer: Xiaoshu Hu

Reviewer's report:

In this cross-sectional survey, the authors evaluated the metabolic syndrome prevalence and cardiovascular risk factors in adults in the south part of China. Although this topic is not something new, it is quite interesting to know the situation in such an economically developed area, giving a large disparity in China. The study design is reasonable and the survey has been appropriately conducted. Data analysis is appropriate and the tables are quite clear. The conclusions are supported by the data.

Minor Essential Revisions:

1. Description of waist circumference measurement may be inaccurate. Please check the protocol of the 2002 China National Nutrition and Health Survey. “The WC measurement was made at minimal inspiration to the nearest 0.1 cm, midway between the lowest rib and the superior border of the iliac crest”.

2. There are several definitions available for metabolic syndrome. Please justify why you used IDF definition to present your study prevalence. Moreover, the expression of IDF definition in the article was not accurate. For example, In IDF definition “Reduced HDL-cholesterol was defined as: <1.03 mmol/L in men, <1.29 mmol/L in women, or specific treatment for this lipid abnormality” – “The metabolic syndrome--a new worldwide definition. Lancet. 2005 Sep 24-30;366(9491):1059-62”.

3. You mentioned “The 2000 census and associated administrative data” were used for derivation of weight. Is that the national data or provincial data? Please clarify it.

4. In result part, you should point out clearly “the overall prevalence of MetSyn was…” in the result description of Table 2.

5. Please add the corresponding footnotes under Table 3 as well.

Discretionary Revisions:

1. Please use the term consistently. To my knowledge, vascular disease is just a form of cardiovascular disease.

2. In the methodology part, please explain why your study results from six urban city districts and seven rural villages in such an urban/rural proportion could be
representative for the province.

3. I think OGTT results were not used for analysis in this study. So it can be removed since it was not relevant here.

4. In the discussion, how do you calculate the estimated the number of MetSyn-affected population aged # 20y? You should say something about the number of adults having an age # 20y in 2000 Guangdong province Census.

**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.