Reviewer’s report

Title: Ten year changes in the prevalence of overweight, obese and centrally obese Chinese adults in urban Shanghai, 1998-2008

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Reviewer: Juliana Chan

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In this study, the authors compared the prevalence of overweight, general obesity and central obesity in participants from the Shanghai Diabetes Study during the period 1998-2001 (n=4894) and 2007-2008 (n=4395). Due to the close associations of obesity with risk of diabetes, cardiovascular diseases and premature mortality, it is important to analyze the obesity trends in a city undergoing rapid economic changes such as Shanghai to inform the policy makers, public and care professionals for awareness and prevention purpose. In this study, the authors reported increasing trend of obesity in Chinese men but not in women consistent with similar trends observed in other cities in Asia such as Hong Kong.

Major Compulsory Revisions

1. Suggest replace the adjective of “obese and centrally obese” with the nouns of ‘obesity and central obesity’ in the title of the paper.

2. Several definitions of obesity, central obesity and underweight were used in the text and diagram [WHO criteria for Chinese (2004), or WGOC criteria (2002), or WHO/IASO/IOTF criteria (2000)], please clarify each one of them and spell out the difference.

3. Did the authors perform a sample size estimation, 95% confidence intervals should be given for all prevalence.

4. Were there any overlaps between these 2 study populations? In table 1, did the author adjust p value for age when comparing the risk factors between the 2 cohorts in men and women?

5. It is worth noting that in both men and women, there was increasing trend of fasting and 2-h glucose levels but not in the lipid levels. Did the author adjust for age difference? If this remained significant, the authors should discuss this point. A similar trend has also been reported in a Hong Kong Chinese population (Simmons RK, Ko GT, Chan JC, Cockram CS, Nan JH, Griffin SJ. Glucose intolerance and cardiovascular risk factors in Hong Kong: Data from two occupation-based cross-sectional surveys. Diabetes Res Clin Pract. Jul 30. PubMed PMID: 20675005. Epub 2010/08/03)

6. The abstract does not present the rationale, details of participants and key
results clearly. The basic demographic data (e.g. gender distribution and mean age) of the 2 cohorts should be included. The Adjusted Odds Ratio is not well defined in the abstract (compared to the 1998 cohort). The key results in figure 2 should be mentioned in the abstract.

7. The motivation or objective of this study was not well described in the “Background”.

8. The contents of the “Methods” are verbose and not well-organized. Some subtitles may not be necessary (e.g. “Ethical Approval” or “Questionnaire”). This section can be shortened and organised better by describing the collection of demographic data collection using questionnaire, followed by physical examination and blood sample collection.

9. This study involved two cross-sectional surveys with multistage sampling schemes. The Table 1 should be analyzed using Wilcoxon signed rank test for medians or McNemar’s test for proportions rather than Mann-Whitney U test and Chi-square test. Also there should be comparison between the 2 cohorts with age adjustment rather than just comparing age and gender difference within the same cohort.

10. In Table 1, the total number of male participants in 2007-2008 should be 1599 and total number of female participants in 1998-2001 should be 2813. There were inconsistencies in the way how data are presented. In table 1, the data were expressed as median (interquartile range) and Table 2, the data were expressed as mean (SD).

11. The results in the text, diagram and tables should be complementary rather than overlapping. Suggest summarise key results in the text rather than repeating all the values which have already shown in the figures or tables.

12. In the Discussion, the author should summarise and highlight the key findings of this analysis and discuss potential study limitations, e.g. representative nature of the cohort compared to the national sample.

13. The paper will benefit from editing by a professional or native-speaking person.

Minor Essential Revisions


2. The “Plasma serum cholesterol and triglyceride levels” under the subtitle “Blood Sample Collection and Laboratory Assessment” should be corrected.