Reviewer's report

Title: A retrospective, cross-sectional study of real-world values of cardiovascular risk factors using a healthcare database in Japan

Version: 1 Date: 19 May 2014

Reviewer: Weihong Tang

Reviewer's report:

The authors of this study compared the distributions of major cardiovascular disease risk factors in the Japanese population based on a large, recently available, health insurance-based database, named MinaCare database, with those from two existing national databases (MHLW-SH and MHLW-H&N). The results were generally consistent among the three data sources, all showing that BP, LDL-c, and HbA1c levels are not well-controlled in a substantial proportion of subjects based on the Japanese guidelines. The authors concluded that the MinaCare database is highly valuable in studying the health status of the Japanese population covered by employment-based health insurance given its low selection bias, large sample size, wide age distribution, and high flexibility in allowing analysis of subject-level data. The study was adequately designed and manuscript well-written. The data appear to be sound and results interesting and informative.

Specific comments:

1) This study focused on a health insurance-based database to investigate the informativeness of the data in studying epidemiology of CVD risk factors in Japan. Please discuss the contribution of this study to the global effort to prevention and treatment of CVD worldwide.

2) Page 7, 2nd line from the bottom. Please clarify what “primary sector” refers to.

3) Page 9, lines 2-3. In the sentence “demographics (age, sex, height, weight, waist circumference, BMI, obesity score, and smoking status)”, only age and sex are demographic variables. Please rewrite this sentence.

4) Page 9, line 6. The sentence “Age was not included in the dataset” is inconsistent with the previous sentences which stated that age was included as demographics.

5) Page 12, line 9. Please clarify how “current smokers” was defined.

6) Page 15, line 1 under “BMI and waist circumference”. Shouldn’t “BMI #25%” be “BMI #25kg/m2”?

7) Page 16, line 3. Shouldn’t the word “SBP” be “DBP” here?

8) Tables 1 and 2. Please define abbreviations in footnote.

9) Figure 6 is not informative and thus can be removed.
10) Figure 8. It would be more informative to present the data in Figure 8 as a table.

**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.