Reviewer’s report

Title: Secular trends in age at menarche among Chinese women born from 1955 to 1985

Version: 2 Date: 9 October 2014

Reviewer: Chen Fangfang

Reviewer’s report:

In the article “Secular trends in age at menarche among Chinese women born from 1955 to 1985”, the authors have clearly described the secular trend of menarcheal age among southeastern Chinese women, and comparisons have been made between different birth cohorts. The data of this article have provided important information in pubertal development study domains among Chinese populations. In this article, I don’t think duplication or plagiarism has occurred.

According to the guidelines for reviewers, I commented as below.
1. Is the question posed by the authors well defined?
   Yes.
2. Are the methods appropriate and well described?
   Methods are described clearly, but some detailed information were indicated in other previously published papers. How the samples was chose should be clarified in the paper.
3. Are the data sound?
   According to the methods, the whole subjects of this study were from two southeast provinces of China. The PHCSS study include 1 northern and 2 southeastern provinces. Why don’t include the data of that that northern province? Of all the subjects, what’s the proportion of urban and rural women?
4. Do the figures appear to be genuine, i.e. without evidence of manipulation?
   Figures appear to be genuine.
5. Does the manuscript adhere to the relevant standards for reporting and data deposition?
   Yes.
6. Are the discussion and conclusions well balanced and adequately supported by the data?
   In the discussion, the authors has compared the secular trend of age at menarche of different regions in the world, and comprehensively discussed about the possible reason of different change rate in each birth cohort.
7. Are limitations of the work clearly stated?
   Yes.
8. Do the authors clearly acknowledge any work upon which they are building, both published and unpublished?
   Yes.

9. Do the title and abstract accurately convey what has been found?
   Subjects were all from southeast, they can’t represent all the Chinese women. So, in the title, “southeast of China” should be clearly indicated.

10. Is the writing acceptable?
   Yes.

Except all the questions above, I also want to ask the authors according to the article.

In table I, Cochrane-Armitage Trend test showed that there might be some obvious difference of the proportion of urban girls between different birth cohorts. But, we can’t see some trend from the data. Could you explain what does the result of trend test mean?

**Level of interest:** An article of outstanding merit and interest 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