Reviewer's report

Title: Assessment of maternal anemia in rural Western China between 2001 and 2005: a two-level logistic regression approach

Version: 2 Date: 18 November 2012

Reviewer: Chaowei Fu

Reviewer's report:

The authors addressed most of my questions but some were not well answered. Also, I could not find the changes marked or traced in the revised one.

Major Compulsory Revisions

1. Jiangxi Province locates in southeast China (http://english.jiangxi.gov.cn/AboutJiangxi/200808/t20080824_83091.htm). China government had defined the western China including 12 provices as the following webpage:http://www.chinawest.gov.cn/web/index.asp. Anyway, Jiangxi Province should not be one of them. In the manuscript, I think the general define should be used because it can mislead the reader. Excluding the data of Jiangxi Province, the title is ok.

2. In the section of methods, "inclusion criteria that mothers were non-pregnant, higher than 15 years old, and have good compliance...... “ was added but how to assess the "good compliance"?

3. The informed consent should not be in the section of quality control.

4. The statistical methods were still unclear. All statistical methods used here should be described in this section.

5. As presented in the manuscript, different polulations were selected in 2001 and 2005. It should be a mistake that data from two surveys in different subjects were merged into one and analysed in the logistic model.

6. In the section of conclusion, "The study demonstrated that the burden of women anemia in rural western China had been increasing over time." could not be supported on two cross-sectional studies without the data in 2002, 2003 and 2004.

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

Quality of written English: Needs some language corrections before being published

Statistical review: No, the manuscript does not need to be seen by a
statistician.