Reviewer’s report

**Title:** Blood pressure and hypertension prevalence among oldest-old in China for 16 year: based on CLHLS

**Version:** 0  **Date:** 21 May 2019

**Reviewer:** Chenkai Wu

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This study examined the trend of hypertension prevalence among the oldest-old Chinese using a large, prospective cohort study. Given the scarcity of epidemiologic data on hypertension among the oldest-old in China, research findings from this study are of importance. However, there are a few major methodological issues:

1. Information about anti-hypertensive medication was unfortunately not available in the CLHLS, which precludes us knowing whether the measured BP was natural or treated. This will inevitably bias the estimate of hypertension prevalence (and also prevalence of awareness and control of hypertension), potentially by a lot.

2. CLHLS has a longitudinal design, which means participants may have repeated measurements of BP in multiple waves. The authors need to use specialized statistical methods to deal with these correlated data.

3. A large amount of the CLHLS participants had limited remaining life since their first participation in the study, their BP may indicate the end of life instead of abnormal cardiovascular function. Some sensitivity analyses may be needed.

4. The authors used the 6th Chinese national census data, which were collected in 2010, to provide age- and sex-adjusted hypertension prevalence. This may create difficulties in interpreting the results as the first several waves of CLHLS data were collected over 10 years ago.

5. The authors did not specify the number of participants excluded from the present study due to missing BP or other key variables.

**Are the methods appropriate and well described?**
If not, please specify what is required in your comments to the authors.

Yes
Does the work include the necessary controls?
If not, please specify which controls are required in your comments to the authors.

Yes

Are the conclusions drawn adequately supported by the data shown?
If not, please explain in your comments to the authors.

Yes

Are you able to assess any statistics in the manuscript or would you recommend an additional statistical review?
If an additional statistical review is recommended, please specify what aspects require further assessment in your comments to the editors.

I am able to assess the statistics

Quality of written English
Please indicate the quality of language in the manuscript:

Needs some language corrections before being published

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