Reviewer’s report

**Title:** Objective and perceived food environment and household economic resources related to food insecurity in older adults living alone in rural areas

**Version:** 0  **Date:** 04 Sep 2018

**Reviewer:** Reviewer 2

**Reviewer’s report:**

**PEER REVIEWER COMMENTS:** To view the full report from the academic peer reviewer, please see the attached file.

**REVIEWER COMMENTS FROM REPORT:** This paper explores the relationship between food environment and food insecurity among elders in rural Korea. The results indicate that the food accessibility is likely to be more important than individual income to be related to food insecurity. More interventions may need to target the food availability and accessibility to improve food insecurity in elder Korean in rural areas.

**REQUESTED REVISIONS:**

The authors need to clarify the sampling frame. For example, what the base population is. It seems that not all seniors will receive the invitation since majority of the enrolled subjects receive public food assistance. Is there any income threshold for inclusion criteria? Understanding the size of base population will help assess the representativeness of the 170 subjects, which are small in an observational study. Moreover, the interpretation should be based on the full model, which included the economic burden and food environment. The expenditure of heating cost was not significant in the full model. That variable is also endogenous with regards to food insecurity. Therefore, only two food accessibility variables were significant. But one variable (inconvenient bus route) was negatively associated with food insecurity, which is contrary to the intuition. More discussions are needed.

**ADDITIONAL REQUESTS/SUGGESTIONS:**

see comments above

**Are the methods appropriate and well described?**

If not, please specify what is required in your comments to the authors.

**No**
Does the work include the necessary controls?
If not, please specify which controls are required in your comments to the authors.

No

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

No

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.

Not relevant to this manuscript

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

Needs some language corrections before being published

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