Author’s response to reviews

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

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Technical Comments:

(1) Please include email address of all authors in the title page.

Response: We included the email address.

Reviewer 2 comments #1: The authors addressed my comments but not in full scale. Although the housing fee and heating cost were significant in bi-variate analyses, they were not significant in the multi-variate analyses. Therefore, the authors cannot claim them as significant factors. However, in the revisions, the authors did not take this suggestion and still claimed them as significant factors.

Response: Thank you for your thoughtful review of the manuscript. We revised the section of discussion and conclusion, focusing on the results of multi-variate analyses as you pointed out. (page 15)

Reviewer 2 comments #2: About the inconvenience bus route, the authors argued that using personal cars as the substitute to bus route to lower the risk of food insecurity. If that's the case, then using personal car should be the predictor instead of the bus route. More analyses are needed.

Response: We included the variable of transportation to get to the nearest food stores as an objective measure of community food accessibility (Table 3). Using cars was not significant factor of food insecurity. Perception indices of community food accessibility such as difficulty in food purchasing due to food stores being located far from home and difficulty in food purchasing due to inconvenient bus routes were significant factors.
We presume that the negative association between inconvenient bus routes and food insecurity might reflect characteristics of food secure persons who are younger and have higher income level. There is a possibility of the reverse-causal association since this is a cross-sectional study. We added more explanation on this issue. (page 13)