Reviewer's report

Title: Diabetes, hypertension and mobility among Brazilian older adults: findings from the Brazilian National Household Sample Survey (1998, 2003 and 2008)

Version: Date: 11 May 2015

Reviewer: Charumathi Sabanayagam

Reviewer's report:

In this article, authors examined the association between diabetes, hypertension and mobility among older adults in Brazil using data from three national surveys. It is interesting; however, I have several comments about the manuscript.

Abstract

1. Background: Authors mentioned that the aim was to examine the association between mobility, diabetes and hypertension over a ten year period, but the results and conclusion point to the trends in the association. The aim should be revised to include examining the trends in the association between mobility and the chronic conditions.

2. Methods: Need to mention how diabetes and hypertension were defined and what were the variables adjusted.

3. Results: As the aim was to examine the association, statistics supporting the decease or increase in strength of association in terms of OR (95% CI) and trend should be provided.

Manuscript, Methods:

4. Was there any oversampling of older adults? Was there any exclusion criteria? How was missing data handled? What was the response rate in each survey?

5. Covariates: Was information on household income, alcohol and smoking status available? If so, they should be considered for inclusion in the regression model.

6. Statistical analyses: How were variables for selection in the regression models chosen? How was sample weight calculated? A test for trend would be useful.

Results:

7. Table 1 and Table 2 should include a p-value to show the significance of the differences in the distribution of participant characteristics and level of mobility indicators across the years.

8. Table 3: Represents which year of survey?

9. As there is increase in the proportion of women, oldest, those living alone, and those with multiple consultations, suggest stratifying the associations of diabetes/hypertension and mobility by these conditions as well. This will give an idea about the subgroup that drives the increase in the magnitude of association.
between 2003 and 2008 for diabetes, for example.

10. Although the strength of the association of mobility with hypertension and diabetes decrease or increase over the years, there seems to be no change in the prevalence of the mobility indicators per se (Table 2). This deserves a comment.

Discussion:

11. Page 11, line 250: ‘assessed mobility using objective physical measurements also found an association with hypertension, which corroborate our findings’, please mention what were the objective measurements used in other studies and also provide references to support this claim. The same goes with line 269-70 where studies using objective physical tests have been referenced.

Level of interest: An article of importance in its field

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

Statistical review: Yes, and I have assessed the statistics in my report.

Declaration of competing interests:

I declare that I have no competing interests.