Reviewer's report

Title: Western and Modern Mexican dietary patterns are directly associated with incident hypertension in Mexican women: a prospective follow-up study

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Reviewer: Linda Oude Griep

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Monge et al used data-driven principal component analyses to define dietary patterns and relations with risk of self-reported treated hypertension in a population of 62,913 Mexican women. This study shows interesting data particularly on dietary patterns in Mexico. Their associations with hypertension are also interesting; however, there are few considerations to take into account:

* Title: The title mentions that this is a cross-sectional analysis, while in the Discussion, line 271, this is a prospective study. Considering that the outcome is incidence of hypertension, I am curious about the reason to mention cross-sectional study in the title.

* Methods, line 110: Why were ~12,000 participants excluded due to unavailable information if it is a cross-sectional study?

* Methods, line 127: I understand that follow-up time is not available due to unavailable date of diagnosis. However, could you please add the average time between completing the FFQ and hypertension questionnaires? It would be good if you could please explain clearer the timing of the questionnaires. Do I understand it correct that the FFQ was completed in 2008 with the hypertension follow-up questionnaire at December 2011? But the hypertension questionnaire asked about diagnosis of hypertension in the past 2 years. May this have led to the possibility of missed cases? Moreover, although it is a large study with a considerable number of HTH cases in 2 years time, this period is relatively short and may explain the borderline associations particularly for the FV dietary pattern with incidence of hypertension. If you have done a power calculation before starting this analysis, it would be good to add details on this.

* Methods, Line 130: Why are people with hypertension, not on treatment not included? Also, it may be good to validate cases in future with data from their GP, if possible.
* Methods, Line 123: Please address the moderate to weak correlation of protein measured by ffq vs 4-day 24-hr recalls. Underestimation of intake of protein sources may have influenced the results and composition of the dietary patterns.

* Results Line 255 to 261: It would be informative if you could please add the variance explained for the components based on individual food items? How does the variance explained by individual items compare to variance explained by food groups? The number of individual food items per food group may explain the different dietary patterns by component; could you please add more information on this?

* Results: Please add the correlations between the 3 dietary patterns?

* Discussion Lin 281-285: Please add references of 'other studies' and the variance explained by those studies for comparison.

* Discussion Line 293: More explanation of 'commonly used index scores' and 'hypothesis-oriented dietary patterns' are needed to make a proper comparison of how these dietary patterns may be comparable to which dietary patterns investigated in this analyses.

* Discussion Line 296-300: Please rephrase this complicated, long sentence.

* Discussion: Considering the results based on the outcome of self-reported treated hypertension, it seems that, although treated, blood pressure levels are not well controlled. I understand that this study has no available data on actual blood pressure measures, but is any data available on levels of control and adherence to treatment of the treated hypertensive population in Mexico?

* Conclusions, Line 354-355: Considering that only treated individuals are included, associations may be underestimated and conservative. Also, the number of cases in 2 years time may not have been at sufficient power, which also may explain the borderline results of the FV diet. Considering the available literature and inverse borderline trend of associations, it would be good to weaken the statement of lines 354 and 355.

* Table 1: It would be informative if you could please add a percentage of contribution to the food group for each food item.
Level of interest
Please indicate how interesting you found the manuscript:

An article whose findings are important to those with closely related research interests

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

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