Reviewer’s report

Title: Association between empirically derived dietary patterns with blood lipids, fasting blood glucose and blood pressure in adults - The India Migration Study

Version: 0 Date: 10 Sep 2017

Reviewer: Rejane Figueiredo

Reviewer's report:

General:

* the clinical relevance of the study should be better pointed out in the Discussion, and even in the Introduction

* if the study used the CVD and Diabetes markers, better clarifications could be presented because the use of these markers

* A highlight was given to the regions at the beginning of the manuscript, but the results were not presented by region

Objectives (Abstract and Introduction):

The objective of the study suggests that the study will be done comparing rural and urban regions of India, as well as in four different regions of India, however the principal results are shown only for the total population of the study (In abstract and Introduction).

Abstract

"Cross-sectional data from the Indian Migration Study (2005-2007) have been used for this study. Study participants (n=7067, mean age 40.8yrs) included urban migrants and residents from Lucknow, Nagpur, Hyderabad and Bangalore with their rural and urban dwelling siblings respectively"

This sentence is too extended and does not make clear the design of the study.
Introduction

General comments: It's clear, but simple. A little more information should be included on the various dietary patterns (especially in India), markers used in the analysis and the importance of the study. The objective should be improved, reflecting the presented results.

Methods

* General comments: It's clear and detailed.

* Did variable education evaluate with two categories: illiterate and literate? If yes, it's should be clear in the study.

* Statistical analysis: In the study was used the principal components analysis? Would be more appropriate to adopt the factorial analysis, being the Principal Components the extraction method?

Results

* Line 187: correct the word "screen plot";

* Why were the results presented by different regions? Is this relevant for the study? If yes, the principal variables of interest in the study (cholesterol, LDL, Triglycerides, HDL and fasting glucose) should also be presented by region.

* Why were dietary patterns was not evaluated as a risk factor for diabetes, since there is this information available?

Discussion/conclusion

The strengths and limitations of the study should be better defined and presented.

Tables

1) Table 1

a. The explanation for * is not clear
b. Include information for all variables used in adjusted models, for instance: use of regular medication for diabetes, food supplements

2) Table 2 - just a suggestion: include "Ref" in the table, not "0.00 (Ref)"

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:

Acceptable

Declaration of competing interests
Please complete a declaration of competing interests, considering the following questions:

1. Have you in the past five years received reimbursements, fees, funding, or salary from an organisation that may in any way gain or lose financially from the publication of this manuscript, either now or in the future?

2. Do you hold any stocks or shares in an organisation that may in any way gain or lose financially from the publication of this manuscript, either now or in the future?

3. Do you hold or are you currently applying for any patents relating to the content of the manuscript?

4. Have you received reimbursements, fees, funding, or salary from an organization that holds or has applied for patents relating to the content of the manuscript?

5. Do you have any other financial competing interests?

6. Do you have any non-financial competing interests in relation to this paper?

If you can answer no to all of the above, write 'I declare that I have no competing interests' below. If your reply is yes to any, please give details below.

I declare that I have no competing interests.

I agree to the open peer review policy of the journal. I understand that my name will be included on my report to the authors and, if the manuscript is accepted for publication, my named report including any attachments I upload will be posted on the website along with the authors' responses. I agree for my report to be made available under an Open Access Creative Commons CC-BY license (http://creativecommons.org/licenses/by/4.0/). I understand that any comments
which I do not wish to be included in my named report can be included as confidential comments to the editors, which will not be published.

I agree to the open peer review policy of the journal