Reviewer’s report

Title: Socioeconomic factors associated to dietary patterns in the five brazilian macro-regions.

Version: 1 Date: 28 January 2011

Reviewer: Cathrine Lau

Reviewer’s report:

Resume:
This paper examines dietary availability pattern in macro-regions of Brazil and examines the association between socioeconomic and demographic factors and the patterns.
The methods are overall fine and it is a well written paper.

Concerns:
Minor Essential Revisions: Title is not good.

Abstract:
Minor Essential Revisions: Method section does not make sense without further details.

Minor Essential Revisions: Conclusion in abstract is not correct. It is incorrect to state that a dietary pattern is frequent when PCA have been used to identify the dietary patterns.

Introduction:
Minor Essential Revisions: Use dietary availability patterns through out the entire paper. Eating patterns, dietary practices etc should be changed to dietary availability patterns.

Minor Essential Revisions: Last paragraph before objective: reference is missing and it is relevant to know the method used to identify the dietary availability patterns.

Minor Essential Revisions: Objective: the second aim is to EXAMINE not to explain the socioeconomic factors associated with.........

Methods:
Minor Essential Revisions: What is POF?

Minor Essential Revisions: What is PSU = primary selection unit in terms of region, area or???
Major Compulsory Revisions: Categorising the availability of the food groups result in loss of data information. Re-do analyses on continuous food groups or argue for your choice of categorisation.

How big is the fraction of PSU’s with 0 acquisition of one or more of the 21 food groups? Discuss how this may have affected the results.

Results:

Minor Essential Revisions: KMO is not explained in the methods section. This is needed.

Minor Essential Revisions: Is minimum wage on page 5 and in table 1 per month? Please specify and make sure that the numbers are right.

Major Compulsory Revisions: There does not seem to be accordance between pattern numbers in table 2 and 4. Names are absolutely needed. Otherwise it is impossible to check the correctness of the results described.

Discussion:

Minor Essential Revisions: What does it mean for your results/interpretation that availability of rice and beans decreased from 1974 to 2003?

Minor Essential Revisions: Results of linear regression adjusted for income and schooling have not been described previously.

Minor Essential Revisions: Discuss how does the results fit we current dietary recommendations and what should be changed to get closer to the recommendations?

Minor Essential Revisions: Discuss the representativeness of the HBS.

Minor Essential Revisions: Discuss how to make guidelines based on results from Principal component analyses. Would it be more relevant to make cluster analyses when the goal is to guide politicians?

Minor Essential Revisions: Use of terms is not rigorous. In the last paragraph on page 7 low adherence and higher acquisition should be replaced with weaker association and stronger association, respectively.

Conclusion:

Minor Essential Revisions: Correlation should be changed to association or relationship to be strict on the use of terms.

Nutritional guidelines are based on studies of diet-health associations and intervention – and these are “true” independent of social class. It would therefore be more relevant that the politicians change the price on healthy food to make it possible for low income families to buy what is most healthy. This could be incorporated in the discussion/conclusion.
Tables:

Table 2:
Major Compulsory Revisions: Extreme large reduction in data and with no details on types of products in each group, making it impossible to use for comparison with other studies.

Discretionary Revisions: This table needs legend explaining which loadings that are shown in the table.

Minor Essential Revisions: Flour is not part of the traditional North pattern. Sugar is not part of what you called the traditional pattern in southeast, south and Midwest. This should be corrected.

Minor Essential Revisions: Names on the patterns in table 2 are needed.

**Level of interest:** An article whose findings are important to those with closely related research interests

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

**Statistical review:** No, the manuscript does not need to be seen by a statistician.

**Declaration of competing interests:**

'I declare that I have no competing interests'