Reviewer's report

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

Version: 1 Date: 28 December 2010

Reviewer: Patrick Mullie

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Nascimento et al. Socioeconomic factors associated to dietary patterns in the five Brazilian macro-regions

The objective of the study was to describe dietary patterns in Brazilian macro-regions using data from household budget surveys. The authors identified a traditional pattern composed of rice and beans, and a mixed pattern in areas of high economic level.

Major Compulsory Revisions

Data are on the ecological level, so individual conclusions are not possible. The socioeconomical aspect, mentioned is the title, is very minor in the publication, because there are no data about individual food consumption and the socioeconomical levels of individuals are unknown.

There is a possible ecological fallacy present: it is not because some geographical macro-regions include more adolescents or illiterate of low income that you may conclude that this influence dietary patterns.

Not all consumed foods were captured (see discussion about snacks and beverages among adolescents; items purchased and eaten out-of-home are not included in HBS); this is a main problem for the validity of the study.

There are much better publications relating dietary patterns to socioeconomical level.

Minor remarks

Abstract

Line 9: 15% to 28% of the variation …. Variation of what?
Line 9: delete sentence in the South, Southeast …

What is a mixed pattern?

Introduction

Line 8: obtaining data on food intake … I do not agree with this sentence, obtaining data using food-frequency questionnaire is rather inexpensive

Line 11: … updated using international standardized methodology (ref; which methodology?

Line 14: these surveys replace by HBS

Line 17: Household Budget Surveys replace by HBS

Line 17: describe the patterns observed by Naska et al.
Line 21: the socioeconomic factors replace socioeconomic determinants

Methods
Line 12: what is POF?
Line 21 to 29: due to the time frame …. Unclear, please reformulate

Results
Line 1: high KMO values, what is KMO?

Discussion
Discuss the problems associated with ecological data
Where food data adjusted for energy before using principal component analysis, discuss the consequence of energy-adjustments
Line 22: Why mentioning studies conducted in Europe?

Level of interest: Reject as not of sufficient priority to merit publishing in this journal

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'