Reviewer’s report

Title: Gender and Social Mobility Modify the Effect of Birth Weight on Total and Central Obesity

Version: 0 Date: 08 Apr 2017

Reviewer: Renata Freitas

Reviewer's report:

TITLE: Gender and Social Mobility modify the effect of Birth Weight on Total and Central Obesity

The aim of this study was to evaluate total and central obesity according to gender, low birth weight (LBW) and social mobility, within the context of middle-income countries epidemiological transition. We hypothesize that there are more pronounced metabolic consequences of social mobility in women born with LBW. The authors use data from a birth cohort study in Ribeirão Preto, São Paulo, Brazil. Anthropometric measurements, schooling and smoking status were collected at 23-25 years. In total, 2063 subjects were included. This is interesting study and the results presented may contribute to prevention policies.

Title: The title is appropriate to the study developed.

Introduction: The introduction is written in didactic form.

Objectives: The objectives are in accordance with the title, introduction, results and conclusion.

Methods: The study design was well performed.

Results: In general, as the text is well constructed.

Please, explain the letters (a, b, c, and d) in table 1 and table 2.

Discussion:

WC in High-High group with LBW (values: 89.6 cm vs. 76.8 cm) were higher in males than females. Please, explain more about it.

(P 13. L38) I suggest that the penultimate paragraph ("Regarding study limitation...") be moved to the last paragraph.
Conclusions:

(P 14. L36) The metabolic profile was not evaluated in this study. So, I do not agree with this statement "Essentially, we found that the social mobility does not affect metabolic components of health and disease in the same direction" Thus, I think this line should be rewritten.

**Level of interest**

Please indicate how interesting you found the manuscript:

An article of importance in its field

**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' below.

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.