**Reviewer's report**

**Title:** Antioxidant intake among Brazilian adults - The Brazilian Osteoporosis Study (BRAZOS): a cross-sectional study

**Version:** 2  **Date:** 3 March 2011

**Reviewer:** Nagila Damasceno

**Reviewer's report:**

Major Compulsory Revisions (which the author must respond to before a decision on publication can be reached)

It was very important include comments about these points:

a) Despite in vitro and experimental studies show significant linking between antioxidants and many diseases (for ex. cancer, atherosclerosis, osteoporosis) intervention clinical and prospective trials did not show significant effect of supplements antioxidant in primary and secondary endpoint related to chronic diseases.

No more comments.

b) Information about micronutrients (antioxidants, vitamins and minerals) are reduced or absent in much software. Results (from only one 24h recall) showed in this study is able to estimate intake of Brazilian adults?

The authors did not insert anyone comments about this question. I think that this information is essential for validating of information showed in this manuscript. Therefore, I think this mistake a serious methodological problem.

- Minor Essential Revisions (such as missing labels on figures, or the wrong use of a term, which the author can be trusted to correct).

Tables: information about statistic test and significance level is not showed. Information added in legend is insufficient. After to applied ANOVA, what pos-hoc was used to analyze the differences between groups? Now, the author statement that “Since these conditions may modify the needs of antioxidants, several statistical adjustments were performed to correct the possible confounders”. In all legend, model of adjustment needs to be insert and their specific statistic test. Values in bold is not the common style to highlight the significant differences between groups. In general symbols such as “*” or “#” is better.

In Pg 8, authors statement that daily intake vitamin A and C was higher in women, but in Table 2 vitamin C showed similar values (p=0.44). What mean this difference?
The answer presented “With the exception of vitamin C there were no significant differences in intakes of all nutrients between genders” reinforces the previous mistakes showed. Therefore, the question was not answered.

- Discretionary Revisions (which are recommendations for improvement but which the author can choose to ignore)

Introduction: Definition of oxidative stress was revised recently (see Seis H, et al 2007).

No more question.

Considering that any questions were not correctly answered, I would like more comments and new information of the authors about these points. In this structure is not possible to accept.

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

**Quality of written English:** Acceptable

**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