Reviewer's report

Title: Food patterns and dietary quality associated with organic food consumption during pregnancy; data from a large cohort of pregnant women in Norway

Version: 2 Date: 20 February 2012

Reviewer: Estefania Toledo

Reviewer's report:

In their manuscript, the authors present the association between organically produced food consumption and the overall food patterns among pregnant women in Norway. Dietary information was collected during pregnancy.

Major compulsory revisions:
- Subjects and methods: 1st paragraph: Did women give written informed consent?
- Food groups and supplemental table 1: Why do you have two lists of food groups? What do the results look like if you use the 58 groups? Please explain the rationale.
- Outcome variable: please present sensitivity analyses repeating your results after excluding those participants with no reported consumption of meat, eggs, milk/dairy or vegetables
- Statistical analyses: did you try a varimax rotation procedure? This may help to identify especially the second vector.
- Statistical analyses: did you use a screeplot to determine the number of factors to be extracted? Please explain and add some information in the results section
- Statistical analyses: whenever you consider single foods or nutrients, please consider adjusting them for total energy intake
- Results: please, present a table with the general baseline characteristics of your participants according to consumption of organically produced foods.
- Results: 5th paragraph: the rational for using PCA is to find an overall summary for the components included in the PCA. Therefore, I do not understand why, after having identified two vectors, the authors present the results for the individual food groups. Beside this, I understand that the main objective of the study is to see if the identified vectors are associated with the overall consumption of organically produced foods. Thus, when you look at the associations between the identified vectors and the different organically produced foods, you may consider taking into account the issue of multiple comparisons.
- Results: please, show the association between the consumption of organically produced foods and the food pattern adjusting for potential confounders with, for example, a multivariable linear regression model.
- Discussion 2nd paragraph: a lower score in a ‘prudent’ patterns shows a poorer diet than a higher score in the ‘prudent’ pattern. This is not unique to your study. Another issue is that if you use the appropriate PCA techniques, your vectors are uncorrelated. But this is another issue.

- Discussion 4th paragraph: consider the possibility of other variables that may influence this association. For example, overall healthy lifestyles that may make women decide for a healthy diet and for choosing organically produced foods.

- Discussion 6th paragraph: does the FFQ gather information on the fact if foods were eaten raw or cooked?

- Table 1: since the design is cross-sectional, avoid using “influence of organic food consumption on food patterns” and use rather “association between…”

- Figures: instead of using figures, present tables with the factor loadings for those groups with absolute values of factor loadings >0.25 for each of the two vectors

Minor essential revisions:
- Outcome variable: please, move the last two sentences to the results section

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

**Quality of written English:** Acceptable

**Statistical review:** Yes, but I do not feel adequately qualified to assess the statistics.

**Declaration of competing interests:**

I declare that I have no competing interests