Reviewer’s report

Title: Assessing nutrition and other claims on food labels: A repeated cross-sectional analysis of the Canadian food supply

Version: 0 Date: 14 Apr 2017

Reviewer: Zhifeng Gao

Reviewer’s report:

Using the data collected from the University of Toronto Food Label Information program, this paper analyzes the nutrition claims on food labels. It also assesses the trend of nutrition claims by comparing the data collected from 2010 and 2013. The general conclusion is that about 42.9% products carried at least one approved nutrient content claim in 2013, lower than the 45.5% in 2010. Claims regarding fats, fiber, cholesterol, and lean claims significantly decreased but those of sugar and protein significantly increased from 2010 to 2013. Disease risk reduction claim only appeared on 1.5% of the products in 2013, similar to the 1.7% in 2010.

The data used in this paper is unique and the paper is well written. Using one-time data (e.g. 2010 or 2013 data) to describe the nutrition claims pattern on food labels provides some interesting information regarding the current situation of nutrition claims on labels of packaged foods. However, as the author mentioned in the paper, using the current 2010 and 2013 data to discuss the trend in nutrition claims has many limitations. The problem is that nutrition claims have a strong correlation with food category, and the food products in the two time period are different. For example, Meal Replacement and Fruit and Fruit Juices are more likely to carry Vitamins and minerals claims. Then if the proportion of Meal Replacement and Fruit and Fruit Juices in 2013 was higher than that of 2010, the conclusion that there were more Vitamin & minerals claims in 2013 than 2010 is misleading. This is because the increased Vitamin & minerals claims may not be the results of an increase in claims, but a result of more Meal Replacement and Fruit and Fruit Juices included in the data of 2013. The same reason is true for all the other claims discussed in the paper. As the key purpose of this paper is to discuss the trend, the incompatibility of the two data sets make the conclusions in the current paper unreliable.

Here may be two ways to deal the problem mentioned above. 1) The authors can prove that the products in the two data sets are representatives of the packaged foods in the market of 2010 and 2013, respectively. Therefore, even if there is a change in the product categories that result in the changes in the nutrition claims, this can be explained by the market response to new regulations or consumer preference changes by changing the product line. 2) The authors can weight the number of claims by the proportion of a product category carrying that claims to the total number of products in corresponding years. This may take care of the impact of product category changes.

Some minor comments are list below:
Line 185: please report the statistics of 2010 in table 1 for an easier comparison.

Line 185-188: Again, in this test, you can not tell whether the differences in the changes in the claim category is from the change in the claims or from the change in the product categories (e.g. changing in claims on the same product v.s. changing in the number of products carrying a claim).

Line 231: table 3. Please put notation under the table to define n and %.

Line 362: "analyses were not weighted for sales data..." but at least the analyses can weight using the current data collected (e.g. proportion of a food product in 2010 and 2013 respectively).

Please add the full title of figure 1.

All the figures in the PDF file are blur. Please make sure that the figures are of high quality.

**Are the methods appropriate and well described?**
If not, please specify what is required in your comments to the authors.

No

**Does the work include the necessary controls?**
If not, please specify which controls are required in your comments to the authors.

Unable to assess

**Are the conclusions drawn adequately supported by the data shown?**
If not, please explain in your comments to the authors.

Yes

**Are you able to assess any statistics in the manuscript or would you recommend an additional statistical review?**
If an additional statistical review is recommended, please specify what aspects require further assessment in your comments to the editors.

I am able to assess the statistics

**Quality of written English**
Please indicate the quality of language in the manuscript:

Acceptable

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