Author’s response to reviews

Title: Adolescent Nutritional Awareness and Use of Food Labels: Results from the National Nutrition Health and Examination Survey 2005-6

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Version: 2 Date: 6 December 2011

Author's response to reviews: see over
Dear Editors of BMC Pediatrics,

Thanks for considering our publication entitled, “Adolescent Nutritional Awareness and Use of Food Labels: Results from the National Nutrition Health and Examination Survey 2005-6” in your journal and thanks to the referees for the healthy comments. We have now responded to the referee’s comments as noted below in a point by point summation. We look forward to hearing from you regarding our paper.

Referee 1

1. Methods section
The description of the analyses is unclear. The authors state that chi square tests and t-tests were used to assess differences in means, but what were groups that were compared?

Thanks for pointing out this short-coming in explanation. We have now clarified which groups are compared on page 5 (middle of the page).

2. The analyses relating the use of nutrition facts labels with BMI are very basic. Why were only univariate regression analyses performed? Are there no potential confounding factors that need to be adjusted for and would it not be more likely that the relation between nutrition panel reading behaviour and BMI is mediated through dietary intake? The analyses would become stronger and more meaningful if more sophisticated analyses were conducted.

Thanks for this suggestion. We have now incorporated multivariate analyses in addition to univariate analyses in Table 4 and adjusted for a number of factors including patient age, race/ethnicity, foreign born versus US born and poverty status. We have included information on the methods used on page 5 (bottom of page) and results on page 8 (bottom of page).

3. How was awareness of the nutrition program assessed and how was use of the nutrition facts panel assessed? How valid and reliable were the instruments that were used to assess these variables? How valid and reliable are the measures that were used if adolescents never check the nutrition information on packages how valid and reliable are the answers to the questions that they had to complete about these topics?

Thanks for asking these important questions. We now provide more detailed information in our methods section about how this information is collected as well the limitations of the NHANES methodology (page 4-5).

4. How was BMI measured?
We have now put in a section in the methods, which explains how weight and
height were measured as part of the NHANES survey (page 5 – top of the page) as well as how BMI was calculated and which categories were used.

5. Was dietary behaviour measured? And how was the relation of awareness of the nutrition programs and reading of the nutrition facts panels associated with dietary intake? Behaviour could be a mediator in the relation between program awareness and nutrition facts information and BMI. A rationale for assessing a direct association between nutrition program awareness and use of nutrition panel information is required.

Thanks for raising these important questions. While there is detailed information that is collected on dietary intake for NHANES 2005-6 (48 hour dietary recall), the relationship between use of nutrition facts panel information and correlation with actual intake was not the focus of this paper but could be included in a subsequent paper. As the correlation between intake and frequency of use of labels would have to be analyzed individually for each macro and micronutrient measured as well as, this would result in a manuscript that would have at minimum two more tables making it too long for publication as a single manuscript. We do however discuss the need to pursue this analysis in subsequent studies on pages 11-12.

6. Results section
In the results section the authors report on some significant associations between nutrition label reading behaviour and risk for BMI. However, a lot of tests were performed to examine the association between program awareness and reading of specific information on the nutrition panels and BMI. Thus, some of the associations that are reported could be due to chance. The authors should correct for multiple testing to interpret the findings.

Thanks for raising this point. We agree that there may have been some associations seen due to chance given the large number of hypotheses that were tested in this study. We considered using a Bonferroni post-hoc adjustment, however, we think that this approach is likely too conservative and as our results are preliminary in nature and the consequences of making a false-positive error is low, we think it is more important to discuss our results and the fact that a number of hypotheses were tested in the limitations section of the paper. We discuss the possibility that our findings may be due to chance on pages 11-12.

6. Minor essential revisions
There are quite some spelling errors and incomplete words in the tekst.

Thanks. We have now made some revisions to ensure that there are no spelling errors or incomplete words in the text.

Referee 2
RESULTS:
1. There are several numerical errors in the results section, for example I doubt that the SD of subjects' age is only 0.06y. Similarly, the CI for knowledge of the food pyramid can not be 9.8-94.4%.

Thanks for pointing out these errors. The SD actually should have been standard error and has been corrected. The other errors have also now been corrected.

RESULTS:
2. Much of the first paragraph of the results duplicates information in table 2 and can be omitted.

Thanks for this suggestion. We have now tried to consolidate the first paragraph in the results section on page 7.

TABLE 3
3. P-values for the overall ethnicity effects are needed as well as the post-hoc p-values. Also results of the overall p-value (all ethnicities combined) comparing knowledge of the different programs could be given in the text

We have added p-values to table 3 and comment on these differences on page 7 (beginning of page). Table 2 presents the results of all the different programs and use of nutrition information with the ethnicities combined. Please see the above response regarding the post-hoc p values to referee #1 (response 6 – above).

DISCRETIONARY REVISIONS
ABSTRACT:
4. If use of the nutrition label did not reduce the risk of obesity why are interventions needed to increase the use of nutrition labels?

Thanks for pointing out this contradiction. We have now revised our abstract accordingly.

DISCUSSION
5. Some of the discussion is really speculative and editorializing e.g. recommending the inclusion of the “let’s move” program.

We have changed the wording in some parts of this section so that it is less speculative including removing the discussion of the “Let’s move Program”.

TABLE 2:
6. Using the same heading for the two sections of the table doesn’t work well
Thanks. We have changed the title of the table to make it hopefully correspond better to the two sections.

7. Can the authors give the % for all four answers to the label reading behavior. Maybe this information would be more easily given as a stacked bar-graph.

Thanks. We have tried to bar graph format but given the number of variables we are looking at plus the confidence intervals, the bar graph ended up being too busy.

Editorial requests:

1) Please document ethical approval or confirm that permission was given to use the data in the study.

Thanks we have now included this information on page 6 as part of the methods.

2) Please include an Authors' contributions section before the Acknowledgements and Reference list.

Thanks. We have now included these sections as requested.

3) Please include a 'Competing interests' section between the Conclusions and Authors' contributions. If there are none to declare, please write 'The authors declare that they have no competing interests'.

We have now included this type of section as requested.

We look forward to hearing from you concerning our revised manuscript.

Sincerely,

Janet M Wojcicki, PhD MPH