Reviewer's report

Title: Associations of food group and nutrient intake, diet quality, and meal sizes between adults and children in the same household: a cross-sectional analysis of U.S. households

Version: 1 Date: 15 July 2011

Reviewer: Sharon Kirkpatrick

Reviewer's report:

The authors address an interesting research question, which I agree has not received adequate attention. However, a major limitation is the lack of accounting for/discussion of day-to-day variation in intakes. Also do not know the exact requirements for an individual. Methods and interpretation of results need to account for these issues in order for this paper to spark interest in this area, as the authors intend.

Major Compulsory Revisions
- Estimating usual intakes of individuals with one or two days of intake data remains a challenge, but more appropriate methods have been proposed – e.g., see DRI assessment report.
- The literature review should include the numerous studies that have examined associations between the home food environment (including parental attitudes, behaviors, etc.) and children’s intakes.
- The literature review could also be improved by specifying more carefully what the limitations of the existing studies are – this is alluded to in the discussion but in the background it is not clear whether studies were cross-sectional, what the sample sizes were, where they were conducted (US or elsewhere), etc.
- More justification is needed for the use of data that are 15 years old. While I understand that more current data do not enable examination of intrahousehold associations, it seems quite likely that eating patterns (e.g., children eating out of the home, increasing number of snacking occasions, etc.) have changed over this time and possibly that parents have less influence over what their kids eat compared to the mid-90s.
- More information is needed on the CSFII data – were all members of the household sampled, etc. Methods section is somewhat difficult to follow.
- Some parts of the discussion are repetitive of the methods and results sections while the relevance of other sections is unclear – e.g., physiologic responses to food ingestion, etc.
- What is the rationale for the age groupings for children?
- Values deemed to be implausible are not necessarily so for a given day. Excluding individuals from the sample can create a bias by distorting the weighting. This is potentially true for other exclusions as well.
- Does estimation of standard errors account for survey design?
- Need rationale for covariates included in models.
- Writing could be improved - sometimes the points are not clear. This is especially true of the discussion section.

Minor Essential Revisions
- Unclear what the authors are referring to when they note possible genetic effects on diet (background section).
- Unclear what version of MyPyramid is referred to. More complete referencing needed.

Discretionary Revisions
- Would be helpful to put this study in the context of the obesity epidemic in terms of rationale and implications.

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

Quality of written English: Acceptable

Statistical review: Yes, and I have assessed the statistics in my report.

Declaration of competing interests:
I declare that I have no competing interests