Author's response to reviews

Title: Assessing dietary intake among infants and toddlers 0-24 months of age in Baltimore, Maryland, USA

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Author's response to reviews: see over
March 12, 2013

Dear Dr. Nehma Gabriel,

Thank you for the invaluable comments by the reviewers that have enabled us to improve this manuscript. We are grateful for the opportunity to resubmit. Below is a detailed response to the reviewers; the reviewers comments are in bold and our responses follow. In addition, we highlighted all changes in the text of the manuscript in blue.

Thank you for considering our paper.

Yours sincerely,
Dr. Sangita Sharma (on behalf of all authors)

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Reviewer: Dan Ramdath

This manuscript outlines the process used to characterize food and nutrient intake among toddlers aged 2-24 months and further uses this information to develop a population specific tool for assessment of dietary intakes in this age group. This work is highly relevant to infant nutrition as there are few studies that have focused on accurately assessing the dietary intakes of young children.

There are several concerns that arise from the manuscript in its current form and these should be addressed before acceptance for publication.

Major Compulsory Revisions:

#1 pg 4 - the authors justify the use of 24 hr recalls for the development of population specific FFQ by making reference to several self-sighted publications that studied adult populations. More appropriate references should be cited and evidence advanced for the use of 24 hr recalls to develop FFQ in infants.

There are many studies on dietary assessment using 24-hour recalls to develop FFQs for adults, and this can be considered as the most reliable methods. However, to the best of our knowledge, there is no study on the method of developing FFQs for infants.

Furthermore, as we mentioned in page 7 lines 115-7, the draft FFQ was pilot tested among a convenience sample of 16 participants recruited from three of the four centers and representing all age groups and both sexes to identify foods that were not reported in the recalls.

#2 pg 4 - The sampling strategy appears to be on of convenience sampling. As such, to what extent is the sample used representative of Baltimore infants and toddlers?

The study was carried out on African-American participants who were recruited from two health care centers in the Johns Hopkins Community Physicians (JHCP) network. One center was in an urban area, and the other was in a suburban area. The vast majority of caregivers/informants had a higher unemployment rate, lower household income, lower completed education level, and less home ownership than the general population in Baltimore. Therefore, we believe the sample is representative of African-American infants and toddlers from lower socioeconomic group living in Baltimore city.

#3 pg 7 - The response rate of about 53% (73/138) seems quite low. The authors should explain how this might have affected the representativeness of the population for which the FFQ was intended.

Thank you for drawing our attention to this point. We acknowledge that a 61% response rate is not high; however, given the low socioeconomic status of the participants, a higher response rate
is not realistic. This point has been added to the discussion as a limitation.

#4 pg 8-10 - The authors make statements about the extent to which the children met DRI s. Although this is listed among the limitations of the study it seems unreasonable to comment on the adequacy of dietary intakes based on a single 24hr recall. At very best the adequacy of macronutrient may be estimated, but to make statements about micronutrients (eg Table I) seem farfetched and ill advised. These should be corrected.

Thanks for the thoughtful comment the nutrient section and adherence to the dietary recommendation (table 2) has been deleted. We have corrected the text accordingly and now present only the mean intake of nutrients.

Minor Essential Revisions

#5 Abstract: the conclusion outlines how the results of this study were used rather than what the results mean as is expected in a concluding statement.

We have revised the abstract. The conclusion now reads:

Infants were formula fed with a higher frequency than they were breastfed. The consumption of high-sugar and high-fat foods (e.g. sweetened drinks, French fries) increased with each age group, which can increase the risk of childhood obesity.

Reviewer: Naser Kalantari

1. The methods are appropriate and well described and are sufficient details provided to replicate the work. But the authors should give an adequate explanation about the validity and reliability of the measurement methods.

Thanks for the comments. We added the text to the discussion as follows in lines 239-44:

The accurate assessment of food intakes in children is challenging [1]. While parents tend to reliably report their children’s food intake in the home setting [2], interviews with caregivers in childcare settings could potentially be subject to bias due to low levels of interest and motivation [3]. As using multiple 24-hour recalls is the most reliable method of dietary assessment for preschool children [4], the information from a single day may not accurately reflect the usual diet of an individual [5].

2. It is not clear that selected and studied sample, stand for which statistical population.

The majority of respondents were African-American (63%), which is consistent with the proportion of the general population identified/self-identified in the US Census as Black (63.6%) in Baltimore city.
3. For most nutrient needs, the AIs have defined not DRIs, and as we know the RDAs are used for few nutrients such as Vitamin D, Vitamin B6, Iron, Zinc and Iodine, so comparing data of infants’ intake with DRIs may not be so appropriate.

Thanks for pointing this out. We used the term of the Dietary Reference Intakes (DRI) as a general term that covers both Adequate Intakes (AIs) and Recommended Dietary Allowances (RDAs). For clarification we removed the word “DRI” and made it more specific where we used AI or RDA in table 1.

Discretionary Revisions

1. Data are provided too lengthy in fully-described tables. It is recommended to compact it and narrow it down to the valuable data. For instance if a table is provided about food which providing energy, it is not necessary to provide information about the food which supply under 1-2 % of energy.

Thank you for this suggestion. The change has been made.

Major Compulsory Revisions

1. The response rate is very low and calls the randomness of samples into question. The response rate is reported 61% in which 11 persons has been eliminate thereinafter.

Please see response for comment #3 of the first reviewer.

2. Is Ethnic distribution (63% American African) in conformity with general population?

Please see response for comment #2.

3. The discussion and conclusions are well balanced and adequately supported by the data. But assuming the equal intake of breastfeeding for 0-6 months infants, leads to get the same results for breast feeding Reviewer's report among infants. Regarding the author's quotation to obesity, it can make problems in interpreting the data.

The text has been amended in line 40.
Reference List


