Reviewer’s report

Title: Dietary flavonoid intake in older adults: How many days of dietary assessment are required and what is the impact of seasonality?

Version: 0 Date: 24 Sep 2017

Reviewer: Rebecca Williams

Reviewer’s report:

Overall this is a very well written paper which could contribute important evidence to this field. However, there are minor changes required including the addition of more detail within results on the number of days of dietary assessment required for determining flavonoid intake.

Abstract:

Page 2, line 32: Please amend abbreviation from WRF to be WFR

Introduction:

Page 3, line 65: Please briefly summarise the "well-known" limitations that you refer to at the end of this sentence e.g. including differences in food composition databases, choice of dietary assessment method etc.

Page 3, lines 71 & 74: Please amend abbreviations from FCBDs to FCDBs

Page 5, line 106-107: You mention that the number of days required to assess flavonoid intake is unclear, could you estimate from other nutrients such as energy? Including this would also help justify your selection of 12 days?

Methods:

Page 6, line 139: The original study randomly selected a sub-sample of 79 to conduct WFRs with, please explain how this number was chosen and what randomisation method was used?

Page 7, line 151-151: Please explain why the USDA FCDB was used for Australian dietary data.

Results:

Page 9, line 204: The heading states "Days required for assessing flavonoid intake" yet there are no results reported on this. How many days are required? Is it the same for total flavonoids and sub-classes? Summarise between and within differences for flavonoids and sub-classes?

Page 9, line 213-214: There is also no attempt at summarising mean intakes across all seasons for those that were and were not different.
Discussion:

Page 10, line 229: Most of the discussion is around the within-individual differences yet your results report that the between-individual differences were greater than within (line 207-208), therefore some discussion should focus on this. Although, you then go on to say in line 231 that the range for within is larger than between. Please make this clearer in results and discussion if you are referring to different results or if in fact within differences were larger.

Page 11, line 248: The discussion on use of FCDBs could include justification for your use of USDA rather than an Australian database and whether this was a limitation of your study.

Conclusion:

Please also include a statement in your conclusion that further research is still required to confirm the appropriate number of days to accurately determine flavonoid intake and that FCDBs need to be improved to include data from more appropriate dietary assessment methods and across all seasons.

Level of interest
Please indicate how interesting you found the manuscript:

An article of importance in its field

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

Acceptable

Declaration of competing interests
Please complete a declaration of competing interests, considering the following questions:

1. Have you in the past five years received reimbursements, fees, funding, or salary from an organisation that may in any way gain or lose financially from the publication of this manuscript, either now or in the future?

2. Do you hold any stocks or shares in an organisation that may in any way gain or lose financially from the publication of this manuscript, either now or in the future?

3. Do you hold or are you currently applying for any patents relating to the content of the manuscript?

4. Have you received reimbursements, fees, funding, or salary from an organization that holds or has applied for patents relating to the content of the manuscript?

5. Do you have any other financial competing interests?
6. Do you have any non-financial competing interests in relation to this paper?

If you can answer no to all of the above, write 'I declare that I have no competing interests' below. If your reply is yes to any, please give details below.

I declare that I have no competing interests.

I agree to the open peer review policy of the journal. I understand that my name will be included on my report to the authors and, if the manuscript is accepted for publication, my named report including any attachments I upload will be posted on the website along with the authors' responses. I agree for my report to be made available under an Open Access Creative Commons CC-BY license (http://creativecommons.org/licenses/by/4.0/). I understand that any comments which I do not wish to be included in my named report can be included as confidential comments to the editors, which will not be published.

I agree to the open peer review policy of the journal.