Reviewer’s report

Title: Habitual food consumption of the Belgian population in 2014-2015 and adherence to food-based dietary guidelines

Version: 0 Date: 04 Jan 2019

Reviewer: M Ocké

Reviewer's report:

This paper describes food consumption in the Belgian population in 2014-2015 and compares it with the Flemish food based dietary guidelines and with consumption levels of 10 years earlier.

Main comment. In the method section I miss specific information on the food based dietary guidelines, and on the definition of food groups.

Can you explain in the method section or Table 1 how the recommendations should be interpreted. Are these all optimal amounts or are some minimum/maximum amounts to be consumed. What if ranges are given, is this related to the age differences within an age group, or should the consumption level be higher than the lower bound and lower than the higher bound? (Later in the manuscript it becomes clear that maximum recommended amounts are indicated for meat and substitutes, cheese, spreadable and cooking fat; this should be explained earlier).

Can you include the definitions of the various food groups for which consumption is described? E.g. What was the definition of sugar-free drinks. Did this also include tea and coffee when no sugar was added? What is the definition of wholemeal bread (now stated in the result section)

Minor comments

Throughout the manuscript. The numbering of the tables is not consistent with the references to the tables in the text. Most logical to me is to list the guidelines in table 1 (as part of the method section), followed by the age/sex specific consumption in table 2, and the comparison with the previous survey in table 3, etc.

L56-57. The first sentence: '…. the global burden of diseases in Belgium' is confusing. Is it global or in Belgium?

L73. Can you explain better, why guidelines that are expressed as weights or volumes are preferred as reference over guidelines expressed as portions? Was this the only difference between both types of guidelines? Or do they also include other/different food groups.

Clarify in the method section if data collection and the sampling was exactly the same in both surveys; and if different how?
Interviews. How were these conducted in the older children? i.e. those aged 10-15 y. Was this the combination of parents and children or only the children?

Do you mean 'consumed amounts' by Food portion sizes? And were all amounts expressed as 'amounts as consumed' or as 'raw weight'?

What do you mean with 'food portions' provided by manufacturer information. Are these the weights of apples, chocolate bars etc?

How were the nutrient-poor foods treated? Was % of kcal intake calculated for the person/day-specific kcal intake, or was it calculated as % of the group-level recommended kcal intake?

Here reference is made to Table 2 that should list the dietary recommendations; however these recommendations are provided in Table 1.

Is this approach really conservative? Especially since many comparisons were made?

Results. I miss information on the study population and a comparison with how the general Belgium population. This will give insight in the representativeness of the study population. For example regarding education level, occupation, or % smokers?

Table 2. Include information on the number of persons the data refer to.

I cannot find the mentioned number 1168 ml for the whole population in any table.

Rephrase the sentence. The majority of the population was below….; consumption level should be included in the sentence.

Table 3 gives different number of persons for the different bread types. How does this work? Are non-consumers excluded? Explain in the header that 95% confidence intervals of the mean are included. Similar remarks apply to table 4.

Rephrase 'the less often' in the sentence 'Adolescents complied the less often with this recommendation (9-10%), while adults the most (16%).'

Concerning spreadable and cooking fat, compliance with the national guidelines was observed for a large part of the population. This is strongly related to the computation of the recommendation which results in quite high amounts (i.e., 5 g of spreadable fat per bread slice multiplied with the number bread slices recommended). I do not understand the link between how the recommendation was derived, and that a large part of the population meets the recommendation. Wasn't the person-specific amount of spreadable fat consumed considered?
Please add to the following sentence what happened with fruit consumption after the age of adolescence. Did it remain stable or did it increase again? 'The consumption of fruit decreased by age and reached its minimum in adolescence.'

L385. Why is the word 'However' used at the beginning of this sentence; what is the contrast here?

L400-407. Recently the results of the full Dutch survey were published; see www.wateetnederland.nl; so this information can be updated

L393-426. Comparison with other studies. Why were the data compared with these few studies? Also Germany and France (other neighbouring countries of Belgium) used GloboDiet data collection for their national surveys.

L430-431. You can clarify the strength of applying the usual intake modelling, by explaining that this is important to assess the % below a cut-off such as recommendations.

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:

Needs some language corrections before being published

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

Do you want to get recognition for reviewing this manuscript?

Add a record of this review to Publons to track and showcase your reviewing expertise across the world’s journals. Signing up is quick, easy and free!

Yes