Author's response to reviews

Title: Incidence and course of child malnutrition according to clinical or anthropometrical assessment

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Author's response to reviews: see over
Cover letter

Incidence and course of child malnutrition according to clinical or anthropometrical assessment, a longitudinal study from rural DR Congo

Re: Point-by-point- response to reviewers’ concerns:

Date: 30/12/2013

From: Hallgeir Kismul, Hallgeir.Kismul@cih.uib.no

Reviewer Kevin R. Short’s concerns

Page 10: 11: “The majority of the children normalised after one month, except stunting…” Explain or revise. In the methods the interval frequency for follow-up was stated to be 3 months, so it is unclear how the authors could make the selected comment. Was there more frequent follow-up for children diagnosed with a condition?

Our response: One month has been corrected to three months.

Page 11: “According to our knowledge we are one of the rare authors who have provided incidence rates…” Awkward. Consider revising to “To our knowledge, the current study is among the first to report incidence rates…” Our response: Amended according to reviewer’s suggestion.

Page 13: the final paragraph is only 3 sentences. Is it meant to be merged with the paragraph that begins on page 14?

Our response: The paragraphs merged according to reviewer’s suggestion.

Figure 1: The line style in the legend should be adjusted so that there is a clearer difference between Severe wasting, Moderate stunting, and McM. In the figure these are distinct but in the legend McM and Moderate stunting look very similar.

Our response: We have changed the line for moderate stunting in order to make the figure easier to read.

Figure 2: The label for the x-axis (Age) is not properly aligned under the panel and the units of measure (months) should be included. The y-axis should have a label for units of measurement.

Our response: The label “age” for x-axis has been better aligned and the label “incidence rates” have been added to the y-axis.

Tables: the titles should be shortened. Some of the text currently listed in the title
area should either be shifted to a legend placed under the table, or could be removed (especially the definitions of the nutritional states), with reference to the text for full details.

Our response: The tables’ titles have been revised and definitions of different types of malnutrition have been moved to footnotes.

Reviewer Michel Garenne’s concerns

1. Visits every 3 months capture only some of the very short episodes (on average half of those lasting less than 3 months). This point could be mentioned.

Our response: We have incorporated the comment that visits every three months may not capture short episodes (page 16).

2. Durations of episodes are measured only from incident cases followed from 3 to 12 months. This procedure shortens the real average duration of episodes, since episodes which started earlier and those which had not recovered by the end of the follow-up are not counted. This deserves to be said. This procedure does not provide an unbiased estimation of the duration of all episodes. This is particularly important for the comparison with other data (such as Ref # 4 in Public Health Nutrition 12:1974). A mean value of 3 months is abnormally small for untreated episodes.

Our response: We do not provide information about average duration of malnutrition as a continuous variable and we do not discuss average duration of malnutrition with reference to the Bwamanda data. Instead we discuss duration in terms of how long it took for malnutrition to resolve. The point has been further emphasised in relation to our discussion about the studies of Isanaka et al. and Garenne et al. 2009 (page 15).

3. Clinical malnutrition (associated with a pathology) does not measure the same parameters as anthropometric assessment (which includes normally short or light children). This could be said from the beginning.

Our response: In accordance with the comments we have noted that clinical and anthropometric assessment take into account different parameters of malnutrition. (page 7-8, 16).

4. (Optional) Authors might be interested in running a multivariate analysis of incidence and assessing the effect of age group, gender (sex), and season. This might give a better idea of the patterns of moderate and severe malnutrition, and proper P values for significant variables. If this is the case, they could simplify Table 1 and 2, and provide more details on age specific incidence in the tables (rather than only in Figure 2).
Our response: We have chosen not to run a multivariate analysis as suggested by the reviewers (optional)

5. The title could include a geographical reference, either “Bwamanda” or “Congo”

Our response: We have changed the title to include a geographical reference (rural DR Congo), this in accordance with reviewer’s comment.

6. Titles for tables are abnormally complicated, and sometimes incomplete. I suggest to remove the case definitions, already well explained in text. Authors could add “age standardized” for incidence.

Our response: Headings for table 1 re-organised in accordance comments from reviewer.

7. Headings for tables could be simplified and re-organized. For example, in Table 1, the first row could say: “Age standardized incidence rate per 1000 child-month, (95% CI), the second row being the season, and the third the gender (boys/girls).

Our response: We have reorganised headings for tables in accordance with reviewer’s suggestion.

8. Table 2: (optional) authors could repeat “clinical malnutrition” and “anthropometrical malnutrition” as in Table 1. They could also explain (in footnote, or in text) where are the remaining children for adding up to 100% (probably dead or out-migrated); or add an extra column.

Our response: We have decided not to explain in a footnote in tables where the remaining children are (optional).

9. Figure 1 and 2: series labels are hard to read, in particular the solid lines and the dotted lines. I suggest to add a symbol (square, diamond, cross, etc.)

Our response: In figure 1 and 2 we have changed the lines to make them easier to distinguish.


Our response: In accordance with reviewer’s suggestion we now refer to Journal of Biosocial Science, 35:601 in our discussion about gender inequality in terms of distribution of malnutrition (page 14).

11. The discussion of the meaning of the various measures (clinical, wasting, stunting) could be expanded. These do not measure the same things, and it is normal to find very different values for incidence and duration.
Our response: In our description of methods we have emphasized that clinical and anthropometric malnutrition describe different signs of malnutrition (page 8, page 16).

12 There is no real gold standard for defining ‘malnutrition’. I doubt that one can define absolute “sensitivity and specificity” of any test. Only an independent criterion (such as mortality or severe morbidity) allows to compute sensitivity and specificity of typical screening methods.

Our response: We have as a response to the reviewer’s comment revised our discussion on sensitivity and specificity (page 16).

13 Authors do not provide any details on treatments. I guess that severe cases (e.g. marasmus, kwashiorkor) were treated, which is likely to shorten the duration of the episode, or natural course of the disease.

Our response: In accordance with reviewer’s comment we had stated that caretakers with malnourished and sick children were offered assistance and that this could have influenced the duration of episodes (page 6, 15).

14 Results section could start with a description of overall prevalence (average Z-score for instance), and incidence by diagnosis, and possibly an assessment how important was the malnutrition problem compared with other sites in Africa (in a few words). Then, continue with incidence age patterns, gender differences and variations by season.

Our response: Given that the article concerns incidence of child malnutrition and that data on prevalence of child malnutrition using the Bwamanda data has been published elsewhere we are of the opinion that this article should emphasize incidence of malnutrition and not repeat information on prevalence.

15 Seasonal effect: my reading of Table 1 and Figure 1 is different from what is said in text page 9 (first paragraph of Results section): more clinical malnutrition in January to June, more wasting in July to September (rainy season), more stunting in January to March (dry season). These effects could be better explored, and linked to diseases (diarrhea, malaria), food shortage, or other causes of malnutrition.

Our response: We have revised the findings on seasonal variations in accordance with the reviewer’s observations and related the findings to factors such as cropping season and child diseases (page 10 and 13).