Reviewer’s report

Title: Associations of childhood, maternal and household dietary patterns with childhood stunting in Ethiopia: Proposing an alternative and plausible dietary analysis method to dietary diversity scores

Version: 0 Date: 20 Aug 2017

Reviewer: EA Symington

Reviewer’s report:

General comments:

The topic has relevance since dietary methodology is time consuming, costly and requires well trained fieldworkers for good quality data. Research on how to use this effectively contributes constructively to the field. The strengths of the study is the high number of children being assessed and the analyses of factors (household and maternal) other than the child's dietary diversity and patterns.

In the "sample size calculation and sampling technique" section, it is explained that "A total of 75 EAs (26 from Tigray and 49 from SNNP), from 56 districts (19 from Tigray and 37 from SNNP) were selected using probability proportional to size (PPS) sampling in relation to the population of the EAs", thus it may be useful to indicate in the "study area" section that SNNP is a larger geographical area or a more populated area and therefore more EAs (as indicated by the PPS sampling).

Further comments are mainly based on editorial/language changes as indicated below:

Editorial and language comments:

Page 4, row 7: Change "children" to "child".

Page 5, row 42: Correct "process" to "progress".

Page 5, row 45: Indicate that EAs is the abbreviation from enumeration areas.

Page 6, row 12 and 14: Delete the unnecessary repeat of "using two stage cluster sampling" which has been explained in the first stage.

Page 7, row 4: Add after "Gregorian" the word "calendar" for clarity.

Page 7, row 30: 'minimum' should read 'maximum'.
Page 8, row 1: Clarify who's level of education was obtained - maternal / head of household.

Page 8, row 13: Add after "an indicator of nutritional status" the wording "and specifically stunting".

Page 8, row 14: Delete "and thinness was defined as body mass index <18.5 kg/m2". The thinness is not reported or discussed elsewhere and therefore renders this statement unnecessary.

Page 10, row 25: The words "Almost a third" should read "Almost two thirds".

Page 10, row 29: The sentence "The highest missing value was found related to household income" requires reconstruction for clarity.

Page 10, row 29: "Table 1" should read "Table 2".

Page 11, row 44: The word "significant" should read "significance".

Page 14, row 20: The sentence: "Therefore, DDSs measure one dimension of dietary quality" is a repeat of the sentence in row 18. It can therefore be deleted.

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