Reviewer’s report

Title: Infant feeding practices among HIV exposed infants using summary index in Sidama Zone, Southern Ethiopia: A cross sectional study

Version: 1  Date: 9 December 2013

Reviewer: Rose Zulliger

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This manuscript by Haile and colleagues described the infant feeding practices for HIV-exposed infants within Southern Ethiopia and assessed its association with infant nutritional status. The authors assert that this is the first time that a nutritional summary index has been utilized with HIV-exposed children in the African context. Overall, this manuscript is technically sound and provides interesting evidence on the utility of the index, but it fails to adequately describe the association of the index with important HIV-related variables. Authors should provide additional details about the association between HIV-status, ART-status, and nutritional status in order to make a more meaningful contribution to the evidence base. Additionally, the manuscript would benefit from additional English review.

Major Compulsory Revisions

1. The manuscript is readable, but it would benefit from additional English review to enhance clarity. For example, the sentence “The intersecting effect of inappropriate feeding practice among HIV exposed infants followed by malnutrition has been resulted a significant increase in child mortality after 6 months of age (9).” contains various grammatical errors, as do many other sentences. This could be revised as, “The intersecting effect of inappropriate feeding practice among HIV exposed infants followed by malnutrition has been resulted in a significant increase in child mortality after 6 months of age (9)."

2. Please provide additional information on data collection. How were infant-mother pairs selected from within the clinics? What was the refusal rate? Were there any eligibility criteria? Were the health professionals that collected the data recruited from the sampled clinics? If so, please discuss any biases this may have introduced within the discussion section (Methodology paragraph 2).

3. An important component of the WHO feeding recommendations is the use of antiretroviral therapy, but the manuscript does not currently provide information on the national PMTCT strategy or implementation. This is important contextual information. Please describe the current PMTCT strategy and any relevant information about its application within South Ethiopia. What percentage of the included mothers were on ART and what percentage of the included infants were currently on ART and were ever exposed to PMTCT? What percentage of the children were HIV-infected? What was the association of the index with these important HIV-related factors? Given that this is the first use of the CS-ICFI in
HIV-exposed infants, this is critical information for determining its utility within the study population and for informing its future use.

Minor Essential Revisions

4. Please ensure consistency in rounding throughout the manuscript. For example, some percentages in the abstract are rounded to the nearest percent whereas others are rounded to the nearest tenth of a percent.

5. Please also check for consistent use of punctuation. Some sentences have a space in between the end of the sentence and the reference while others do not. “During the period of transition from exclusive breast feeding to complementary feeding, malnutrition rate increases which might be partly due to inappropriate feeding practices(5). As evidenced by several studies weight and height gain during the period of infancy are influenced by infant feeding practices (6-8).”

6. World Health Organization should be capitalized (Introduction paragraph 1 & Methodology paragraph 4).

7. Please define the following terms the first time that they are used in the body of the manuscript: ICFI (Introduction paragraph 4); ART and PMTCT (Methodology paragraph 2); CS-ICFI (Methodology paragraph 3); SD (Methodology paragraph 4).

8. Please either explain what Enset and kocho are or remove reference to them since most readers will not be familiar with these terms (Methodology paragraph 1).

9. How were the categories determined for the CS-ICFI? Was this by expert opinion or exploratory analysis of the distribution of scores (Methodology paragraph 3)?

10. You have done a nice job with your tables and with your description of the internal consistency of the scale. The 95% confidence intervals are highly informative for readers so please include them in Table 5.

11. The labels for your figures do not seem to match up and the numbers to not seem to match the descriptions in the manuscript. Figure 2 is confusing and does not seem to depict the “Distribution of CS-ICFI tertiles by place of residence”.

12. The discussion section provides a nice description of the internal consistency of the index and of how the study results relate to other application of the index. The long list of discrepant findings between the various studies does, however, make it difficult for the reader to make sense of the findings. Currently, the key messages and implications of the study are not clearly described.

13. The authors highlight the finding that there is a statistically significant difference in CS-ICFI for the different age groups, but the significance of this finding is unclear since the scoring of the scale was different for each group. We are unable to determine whether this difference represents a true difference in nutritional status at different ages or whether it is an effect of the scoring system. This should be noted within the limitations.

Level of interest: An article whose findings are important to those with closely
related research interests

**Quality of written English:** Needs some language corrections before being published

**Statistical review:** Yes, and I have assessed the statistics in my report.

**Declaration of competing interests:**

I declare that I have no competing interests