Reviewer’s report

Title: HIV Prevalence in Severely Malnourished Children Admitted to Nutrition Rehabilitation Units in Malawi: Geographical & Seasonal Variations A cross-sectional study

Version: 1 Date: 11 October 2007

Reviewer: John Aberle-Grasse

Reviewer’s report:

General

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Major Compulsory Revisions (that the author must respond to before a decision on publication can be reached)

1. Problem with sampling. If the results are to be regionally representative, the sample size was calculated for region as described in methods. It looks to be a nested sampling frame with 4 sites per region; site selection within region should be randomized accounting for representation classes: main regional referral center, urban, rural. Otherwise the sample is not going to be representative of the region. If this was done it should be described. Also the rationale for the nest classes should be defended.

2. Methods section state sample needed was 200 children per region per season: 200children x3 regions x 2seasons=1,200 total. Page 8 Results show total of 570 children across all regions and seasons. As such the study does not follow the methods for sampling. Either methods should be modified or results should explain this difference. Hence, the difference between prevalence in north and south region is not significant because sample is too small. So that on page 12, Limitations, statement saying statistical differences in comparison groups were maintained is not accurate.

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Minor Essential Revisions (such as missing labels on figures, or the wrong use of a term, which the author can be trusted to correct)

3. Page 7 Testing algorithm should be associated with standard country guidance. With discordant rapid tests, is Malawi MOH SOP to use PCR or Western Blot or 3rd rapid test tie breaker.

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Discretionary Revisions (which the author can choose to ignore)

3. Page 6 What region was urban site with Child prev 34% since authors indicate in table that there is great range between regions.
**What next?**: Unable to decide on acceptance or rejection until the authors have responded to the major compulsory revisions

**Level of interest**: An article of importance in its field

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

**Statistical review**: Yes, but I do not feel adequately qualified to assess the statistics.

**Declaration of competing interests**: I declare that I have no competing interests