Reviewer's report

Title: Effect of nutritional supplementation of breastfeeding HIV positive mothers on maternal and child health: findings from a randomized controlled clinical trial

Version: 2 Date: 26 October 2011

Reviewer: marzia lazzerini

Reviewer's report:

I just suggest discretionary revisions.

1.1 Sample size:
Page 6, last line: “The data are drawn from populations with standard deviations of 6.70 and 3.60 obtained from piloting the body composition methods in the same population.” It would be good to further clarify this sentence. To what values these standards deviations refer to? What are 6.70 and 3.60 ? what is the unity of measure of the values given ? Are these the SD of the weights, measured in kilos? If yes it would be better to make it explicit.Suggested revision: “The data are drawn from populations with standard deviations of mean weigh of 6.70 and 3.60 kilos”.

1.2 Sample size_Author answer: “The null hypothesis for the sample size calculations was that the difference between the two groups was <= 4 kg. We therefore calculated the sample size using the mean difference and the standard deviations obtained from the population under investigation. The sample size calculated gave us a power of 90.5%.” I may be wrong, but just consider myself as an average reader of your paper. This type of calculation is different from what I normally know, and that I normally read on articles. Usually the power is one of the parameter pre-defined (values normally chosen are either 80 or 90%), and here it is raised the doubt that this is a post-hoc calculation. Just make it clear whether the sample size (with a given alpha error and a given power) was pre-defined.

2. BMI cut-offs
Point 17. Methods, page 9 “As low BMI is considered to be an important prognostic marker for breastfeeding HIV positive women.” What is the BMI cut off which proved to have prognostic value? Is your cut-off (BMI< 25) an adequate cut-off, or should you go for a lower cut-off?Answer: The median BMI was around 26, therefore we used < 25 as a cutoff.

Further comment: you may consider to add this in the text too.

Level of interest: An article of importance in its field

Quality of written English: Acceptable
**Statistical review:** Yes, and I have assessed the statistics in my report.

**Declaration of competing interests:**

'I declare that I have no competing interests’