Reviewer's report

Title: Equity in adherence to and effect of prenatal food and micronutrient supplementation on child mortality. Results from the MINIMat randomized trial, Bangladesh

Version: 2 Date: 6 August 2013

Reviewer: Malavika Subramanyam

My congratulations to the authors for making extensive revisions to the manuscript. It reads much better now. There are a few more compulsory changes that I recommend which will further strengthen the paper.

1. Need to include a sentence on the specific methods used to address the research question in the abstract.

Background:

2. “Other efforts may show variation in equity effects in different settings due to design as well as the historical and political trajectories of the local health system [5].”

This sentence is still not very clear to me. The response in the letter to reviewers was: “Many propose to target the group most in need. This is the straightforward way. However, other efforts for example if we depend on that the existing health system and its personnel will take care that distributions are equal and that both poor and relatively rich will use that equally then there can actually be variations. This is because the design of the intervention and the history of development of the health system in that particular country and also the way the political trajectory has evolved may not allow equal distribution let alone equal effect. This has been addressed now in the manuscript.”

I now understand based on the explanation given in the letter in response to reviewers’ comments. However, I don’t think this has been addressed in the manuscript. There needs to be a little more detailed explanation here.

3. “Other efforts may show variation in equity effects in different settings due to design as well as the historical and political trajectories of the local health system [5]. These attributes of the local health system may not always allow delivery of services equally to the rich and the poor. Economic growth does not automatically lead to improvement in health, e.g. in prevalence of child malnutrition [6].”

There needs to be a better flow from one sentence to another. Currently the sentences start too abruptly. I can guess what the authors are trying to say based on the explanation given in the letter to the reviewers. However, we cannot
expect readers to guess. Please make the links between one sentence to the next more explicit.

4. “In this paper we analyzed the adherence to and the effect of prenatal food and micronutrient supplementations in rural Bangladesh from an equity perspective.”

Please clarify the outcome on which the “effect of prenatal food and micronutrient supplementations” was examined.

5. “We used level of maternal education as the main stratifying variable and tested the robustness of the analysis by using household asset scores as a stratifying variable, and interpreted the results considering that these variables reflect different aspects of resources.”

This language is more suited to the methods section. Please re-word such that you avoid terms such as “stratifying variable” and “variables.” In the background section it would be better to present hypotheses or research questions using terminology that is conceptual or theoretical. For instance, “In order to investigate whether interventions differed in their impact on reducing social inequities, we examined the differences in adherence and etc etc….between children of mothers with lower versus higher level of education.” Also, please include a theory based reason for additional stratification by household assets.

Methods:

6. “The robustness of the analysis was tested by use of the other main socio-economic variable, asset scores dichotomized value, which is a measure of family wealth.”

Please give details about what is meant by “robustness of the analysis was tested.” Do you mean a test of whether the results were robust if a different socioeconomic variable was chosen?

7. “Presence of daily wager in the family, and reported income expenditure status were also used as descriptive statistics, as well as maternal age, parity, body mass index (BMI, kg/m2) at entry into the intervention, and haemoglobin in early pregnancy.”

This is a list of variables and not a list of descriptive statistics. Please clarify.

8. “The variables are now listed under a new section called variables.”

This is a quote for the letters written by the authors in response to the reviewers. However, I was unable to find the section called variables. The list of variables (see point number 7 above) needs more detail as well. In my previous review of this manuscript I had requested for greater detail regarding these variables. I am unable to find it in the revised manuscript.

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