Reviewer's report

Title: Effect of Multiple Micronutrient Supplements for Improving Anaemia of Young Children in a Rural Area, Lao People’s Democratic Republic: a Randomized Trial

Version: 1 Date: 27 April 2011

Reviewer: N Arlappa

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Major Compulsory Revisions

1. The children are randomly allocated to three different groups. Thus, it is clear that children of control group and other two intervention groups are residing in the same village. In addition, the authors mentioned that the mothers and field workers are not masked. Then, how the authors rule out contamination between children of three different groups that influence the feeding pattern of others groups. Similarly, how can they rule out the sharing of MMP sachets, especially as control group not received any supplementation?

2. As the authors mentioned that though the increment in haemoglobin concentration by week 24 was relatively higher in DS group, the difference between the groups was not statistically significant in moderate to severe anaemia group. Could we attribute it poor compliance DS group as only 44% children in DS group consumed all sachets and 27% of children consumed # 4 sachets per week? Then how the authors authentically interpret daily supplementation of MMP is effective as the compliance is poor compared to twice-weekly supplementation.

3. Authors need to mention the reasons for low compliance in DS group.

4. Authors need to mention the proportion children experienced side effects in two experimental groups.

5. Provide distribution of compliance of consumption of MMP by age group in DS group as only 44% children in DS group consumed all sachets.

6. The increase in height for age Z score and the decrease in weight for height Z score were significantly greater in the control and DS groups than in the TWS groups. The authors need to explain how it is possible that there is increase in height, since increment in height needs longer duration. Similarly, authors need to explain why the weight of the children decreased over time.

Minor Essential Revisions

7. As the authors mentioned (page-13), the Table 3 is not appeared in the text. They might have wrongly mentioned Table 3 as Table 4.

8. Did the authors collect the information on morbidity pattern during the study period?
Level of interest: An article whose findings are important to those with closely related research interests

Quality of written English: Acceptable

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'