Reviewer's report

Title: Impact of Vitamin A and zinc supplmentation on malaria morbidity in Ghana

Version: 1 Date: 8 July 2013

Reviewer: Frederick FJ Johannes

Reviewer's report:

Major Compulsory Revisions
1) the paper requires major technical revision
2) the author mentions the use of t-tests for making comparisons between control and intervention groups (between-group differences). How did they measure within group differences (from baseline to end)?
3) the authors do not state the substance used as placebo (or for that matter, which salt of zinc was used)
4) the zinc was in powder form and mixed with the food. Zinc is a 2+ ion. Zinc should not be taken with foods that deter absorption like bran, protein, coffee, phytates, phosphorus or calcium. How did the author control for this?
5) My main concern is the fact that the plasma zinc levels in both experimental and intervention groups dropped from baseline to end of supplementation. The author should address this with a possible explanation.

Minor Essential Revisions
1) the author jumps between the use of incidence and prevalence. When they describe that the 'prevalence' of malaria dropped, it should be noted that the prevalence of a disease can drop, also when its associated mortality rises (more deaths, less alive with the disease);
2) 'Where there were at least two eligible children in a household, we avoided contamination by randomizing the children into the same supplementation group.' This is not random anymore.......
3) The author uses the term 'spectromoter,' then later 'spectrophotometer,' which is not the same.

Discretionary revisions
The document requires overall technical revision

Quality of written English: Not suitable for publication unless extensively edited

Statistical review: Yes, and I have assessed the statistics in my report.
Declaration of competing interests:
'I declare that I have no competing interests'