Author's response to reviews

Title: Determining the efficacy of guppies and pyriproxyfen (Sumilarv® 2MR) combined with community engagement on dengue vectors in Cambodia: study protocol for a randomized controlled trial

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Author’s response to reviews:

Dear Editors,

Please see the revised manuscript based on your comments attached here. I have tried to respond to all these comments. Please let me know if you have any additional edits or comments. Look forward to hearing from you soon.
Best,

John

Reviewer reports:

Reviewer #1: The authors declined to include "Basic information on the scale of the trial ..... in the abstract (i.e. number of clusters, sampling effort)" in response to the original comment, on the grounds of length. However the current abstract could easily be made more concise, by omitting the first sentence, the statement 'all eligible......'. Without information on the size of the trial the reader does not know whether to take the paper seriously or not.

Authors: The suggested deletions have been made, and the number of clusters and sampling effort have been included in the Methods/Design section of the abstract on page 2 line 7 as follows:

“In this cluster randomized, controlled superiority trial, 30 clusters comprising of one or more villages each (with approximately 170 households) will be allocated, in a 1:1:1 ratio, to receive either a) three interventions (guppies, Sumilav® 2MR, and COMBI activities), b) two interventions (guppies and COMBI activities), or c) control (standard vector control). Households will be invited to participate, and entomology surveys among 40 randomly selected households per cluster will be carried out quarterly.”

Reviewer #1: The fact that all possible combinations of interventions are not tested should be reflected in the title (e.g. changing 'and community engagement' to 'combined with community engagement'). The authors should make it clear that the trial will not give separate estimates of the effects of guppies and COMBI.

Authors: Thanks for this important recommendation. We have changed the title as you suggested on page 1 line 3 which now reads:

“Determining the efficacy of guppies and pyriproxyfen (Sumilav® 2MR) combined with community engagement on dengue vectors in Cambodia: study protocol for a randomized controlled trial,

Additionally, to make it clear that the trial will not give separate estimates of the effects of guppies and COMBI, we have added this statement in the interventions section on page 11 line 8. It now reads:

“Therefore, the trial will not give separate estimates of the effects of guppies and COMBI.”
Reviewer #1: The statement of what is the primary outcome should mention how the mosquitoes are trapped (both in the summary and on p12 under 'Primary Outcome Measure'. From the rest of the paper I understand this to be adult resting collections, as described on p15.

Authors: This has been added to the primary outcome measures section on page 14 line 15 which now reads, “The primary outcome measure is the population density (i.e. number of mosquitoes per unit of time spent aspirating) of adult female Aedes trapped using adult resting collections.”. It was also added to the summary (abstract) in the methods/design section on page 2 line 13, which now states,

“The primary outcome will be the population density of adult female Aedes mosquitoes (i.e. number per house) trapped using adult resting collections.”