Reviewer's report

Title: Lymphatic filariasis control in Tanzania: Effect of six rounds of mass drug administration with ivermectin and albendazole on infection and transmission

Version: 1 Date: 9 April 2013

Reviewer: Patricia Graves

Reviewer's report:

This paper contains a large amount of information that is extremely valuable. The multiple approaches (community / schools, different age groups, Mf/antigen/antibody, coverage surveys, vector studies) give a well rounded picture where all the approaches give the same overall picture of declining LF, but mean that some of it is hard to grasp amongst the detail. Some parts are not so well described (treatment coverage and net surveys) so it is hard to assess their validity. Overall the conclusions about decline in LF seem justified by the data presented.

Major Compulsory Revisions
1. The paper needs a map and a timeline diagram showing what was done when (including what tests in which surveys where). It is hard to visualize the sites and the complicated schedule of surveys and interventions by different methods in different types of sites (communities, schools) and villages/hamlets.
2. Please give sample sizes in Table 1 e.g. number of men >20 examined for hydrocele so we can judge the precision of these estimates. The difference between 4 and 3 hamlets can also be tested statistically rather than saying 'no major differences' Table 7 also does not give sample sizes for the surveyed coverage.
3. More detail is needed on the net surveys. It seems 27.6% of people had nets and 6.6% had ITN in 2010 and this did not change much in 2011. Might be better expressed as persons/net, since nets are usually shared. This still seems rather low. Is it perhaps the number of people who slept under nets? How many households, people surveyed and how was this survey done?
4. The discussion is much too long and seems to repeat a lot of results. Please condense to bring out the important findings and minimise quoting of quantitative results. The change in vector species composition is very interesting but buried. The major results do not come out - there was a decline in all indicators examined, but not down to the level needed.
5. Conclusions – what do you think the ‘community engagement’ should be exactly and how would it help? Do you just mean take the MDA, in which case say so. If vector control, what exactly could they do and how would it be evaluated? Much of the conclusion reads like discussion points and suggestions for the future rather than a conclusion from this paper. More concrete points from this thorough study are needed (After 6 rounds, how much decline in prevalence
by age, what decline in mosquito infection, etc, what was the treatment coverage, change in species of vectors).

Minor Essential Revisions

1. What was the test used for CFA (Methods, Tests for circulating… ). Presumably Og4C3, but please state.

2. Method – Design of community study – Change “it was strived to” to “it was intended to” and change “immigrated” to “emigrated” (but what about immigrants?)

Discretionary revisions

I would have been interested in how useful the current entomological indicators are. Since MTP is a composite indicator, it is hard to put a CI around it and test the significance of its decline. Do the authors have any suggestions on how entomological surveillance can be improved? Also, do they feel that the correction factor from light traps to bites per person is valid?

Level of interest: An article of importance in its field

Quality of written English: Acceptable

Statistical review: No, the manuscript does not need to be seen by a statistician.

Declaration of competing interests:

I declare that I have no competing interests