Author's response to reviews

Title: A cluster-randomized trial to determine the impact of hotspot-targeted interventions on malaria transmission

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Author's response to reviews: see over
Dear editor,
Thank you for considering our manuscript ‘A cluster-randomized trial to determine the impact of hotspot-targeted interventions on malaria transmission’ (MS: 1057283298785189) for publication in the journal Trials. We found the comments raised by the editor and reviewer useful for improving our manuscript. We have uploaded a tracked document and a clean document. Below, you will find a point-by-point reply to all comments.
Yours sincerely,
Teun Bousema
Reviewer requests:
This cluster randomized trial is in general well done; however, there are some suggestions to improve this manuscript listed below.

Done

2. P 2, l 70. Insert date of registration as well as the date the first community was randomized if that has already happened.
Done

3. P 4, l 91. Does this mean the increase is bigger than 4 or that the new rate is at least 4 times the old rate, as fold is not a well defined concept.
This has been improved. It was four times higher.

4. P 5, l 102. What is the time unit for incidence? Also P 26, l 575 and 576.
This has been updated. It is commonly annual but for the reference in lines 1575 and 1576 this was not recorded. This highlights the validity of the comment but it makes it impossible to update these statements. We have added ‘annual’ to incidence on page 5.

5. P 6, l 123 and 124. Provide a R(ference) for these data.
Done

6. P 6, l 124. This is NOT an IQR, it looks like the first and third quartiles. The IQR (Inter-quartile range) is the difference between these numbers and is 2. What is intended to be shown here? Is it [Q1 – Q3]? Also P 7, l 155 and 156.
The reviewer may be correct but the 25th and 75th centiles are often used as interquartile range and more informative than solely the difference between these number. We rephrased the sentence, explicitly stating the 25th and 75th percentile.

7. P 6, l 129. Provide a R.
Done

Done

Done

Done

Done

Done

Also P 9, l 194 twice. Also P 10, l 225 and 234. Also P 12, l 265, 266, 271 x 2.
Done

Also P 14, l 314 and 321. Also P 18, l 399 and 403. Also P 21, l 475.

13. P 8, l 168. What was the stratification factor?
This is explained in the next sentence. We can see that this is confusing and we have therefore omitted the term ‘stratified’ from this sentence. This improves the clarity of the text.
Done

Goa, this has been updated

16. P 12, l 268 and 269. Provide a R.
There is no reference for this. This is what we proposed to do and it is slightly different from what was
done in references. We can include a reference and state how our approach differed but do not think
this improves the manuscript.

17. P 12, l 271. Since [or] logically includes [and], suggest dropping [and/]. Also P
Done

Done.

18. P 13, l 295. Why a 10% sample?
Purely based on logistical feasibility. No side effects were expected. This was proposed by the MoH.
This has been explained in more detail in the revised manuscript.

19. P 13, l 306. Which city in [IL]?
Libertyville. This has been updated

20. P 14, l 313. Replace [-] by [to].
Done

21. P 14, l 331. Where is this located?
Updated.

22. P 16, l 366. Explain the randomization more carefully. See Meinert CL book on clinical
trials, P 86 for the criteria.
We have expanded the randomization explanation.

23. P 18, l 409 and 412. What city?
Updated.

24. P 19, l 431, 436, 440, 441. Is there a justification for these sample sizes?
Also P 20, l 449.
We have provided these details in the revised manuscript in the sample size section.

25. P 19, l 444. Replace [Florida] by [FL, USA]. Also P 20, l 452.
Done

Done

27. P 21, l 491. Rewrite as […] and 5% significance level (].
Done

28. P 21, l 494. What software is planned for the analyses?
This information has been provided.
   No, there isn’t. We considered this a conservative approach.

30. P 22, l 512 and 513. Do you have a R for these methods?
   No, but these are conventional statistical methods.

31. P 28, l 625. Provide a R.
   There is no reference for this, we have changed this sentence to indicate that this is what we expect.

32. P 28, l 629 to 631. Since the simulation is not described, a detailed R needs to be provided.
   This has been added

33. P 30. This list is not complete. These are missing: Bti, DNA, ID, ICON, PSC, R0, DSMB, KEMRI/CDC.
   This has been updated

34. P 31, l 685. Delete sentence since it already on l 678.
   Done

   A random sample of 10 Rs was checked for citation accuracy. Also, Trials likes to publish at least the first 30 authors before implementing [et al], so it appears that all uses of [et al] should be corrected. This reviewer also likes to see the issue number as it makes finding the article a lot simpler in most databases.

35. Why is [pii] used in some of the Rs?
36. P 33, R 8, l 720. Insert [[1]] after [197].
37. P 33, R 10, l 726. Insert [[7]] after [7]. Does the Erratum matter?
38. P 34, R 17, l 748. Insert [[1]] after [204].
39. P 34, R 18, l 751. Insert [[5]] after [96].
40. P 34, R 20, l 757. Insert [[6]] after [6].
41. P 35, R 33, l 798. Insert [[4]] after [59].
42. P 35, R 39 could not be verified.
43. P 35, R 41, l 825. Insert [[10]] after [200].
44. P 35, R 43, l 831. Insert [[13]] after [32].
45. P 36, R 53, l 865. Insert [[3]] after [4].
   Done, all references have been updated.

46. For Figure 2 consider adding the right hand axes as well as making the y axis label horizontal rather than vertical.
   We have considered this but decided to stick to the original layout

Editorial requests:
1) Please include a heading for the 'methods/design' section.
   This has been done

2) Please include a section explaining your trial status. This should follow the ?Discussion? section. The status of the trial at the time of manuscript submission. The journal considers study protocol articles for proposed or ongoing trials provided they have not completed patient recruitment at the time of submission.
   This has been done. The recruitment phase had commenced (but not finished) at the moment the manuscript was submitted.