Reviewer's report

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

Version: 3 Date: 10 December 2012

Reviewer: Charlie Goldsmith

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This cluster randomized trial is in general well done; however, there are some suggestions to improve this manuscript listed below.

2. P 2, l 70. Insert date of registration as well as the date the first community was randomized if that has already happened.
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.
4. P 5, l 102. What is the time unit for incidence? Also P 26, l 575 and 576.
5. P 6, l 123 and 124. Provide a R(eference) for these data.
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.
7. P 6, l 129. Provide a R.
12. P 7, l 156, 160, 161. Insert a space between all inequalities and numbers. Also P 9, l 194 twice. Also P 10, l 225 and 234. Also P 12, l 265, 266, 271 x 2. 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?
16. P 12, l 268 and 269. Provide a R.
17. P 12, l 271. Since [or] logically includes [and], suggest dropping [and/]. Also P 18, l 414. Also P 20, l 450.
18. P 13, l 295. Why a 10% sample?
19. P 13, l 306. Which city in [IL]?
20. P 14, l 313. Replace [-] by [to].
21. P 14, l 331. Where is this located?
22. P 16, l 366. Explain the randomization more carefully. See Meinert CL book on clinical trials, P 86 for the criteria.
23. P 18, l 409 and 412. What city?
24. P 19, l 431, 436, 440, 441. Is there a justification for these sample sizes? Also P 20, l 449.
25. P 19, l 444. Replace [Florida] by [FL, USA]. Also P 20, l 452.
27. P 21, l 491. Rewrite as [… and 5% significance level ].
28. P 21, l 494. What software is planned for the analyses?
30. P 22, l 512 and 513. Do you have a R for these methods?
31. P 28, l 625. Provide a R.
32. P 28, l 629 to 631. Since the simulation is not described, a detailed R needs to be provided.
33. P 30. This list is not complete. These are missing: Bti, DNA, ID, ICON, PSC, R0, DSMB, KEMRI/CDC.
34. P 31, l 685. Delete sentence since it already on l 678.

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].
46. For Figure 2 consider adding the right hand axes as well as making the y axis label horizontal rather than vertical.