Reviewer's report

Title: The association between travel time to health facilities and childhood vaccine coverage in rural Ethiopia. A community based cross sectional study.

Version: 3 Date: 4 May 2012

Reviewer: Eric Chamot

Reviewer's report:

The authors appropriately addressed most of the issues raised in the reviews. However, several points still need to be better articulated or presented.

Major compulsory revisions

1. In the abstract, in the second paragraph of the Results section, and in Figure 2, the authors indicate that 97% (602/648) of children with complete vaccination records were vaccinated with Penta3. Results presented in Table 1 are completely different. Why? The table heading indicates that analyses pertain to children with complete vaccination records as well, but in the analysis by sex, for instance, 77.7% (584/752) of children were vaccinated with Penta3. Similar observations can be made for the other vaccinations.

2. The “Travel time” paragraph contains incorrect claims. It is not true that “Travel time appears to have a strong association with Penta3 vaccine coverage” and that “Travel time also had a marked association with BCG. I agree that both associations are highly significant, but they are not of strong magnitude (RR of 2-to-3 or higher or of 0.5-to-0.3 or lower are generally considered be indicate strong associations).

3. The fourth paragraph of the Discussion section contains another partially incorrect interpretation. It is unclear whether “the marked variation in vaccination coverage by kebele suggests that there may be differences in quality of services […] in the different kebele”, because the results presented are unadjusted for travel distance and other potential confounding factors.

Minor essential revisions

1. The second paragraph of the Methods section still suggests that children receive the oral polio vaccine at birth (second line) and at 6 weeks (fourth line).

2. The authors should carefully proofread their document for errors. There are multiple typos, unnecessary double blank spaces and other oversights on virtually every page. Furthermore, the headings of Tables 2 and 3 have not been edited; they still refer to “Logistic regression analyses”.

Discretionary revision
1. The last sentence of the “Geographical access data” paragraph is awkward. I would suggest: “(mean, 73 vs. 67 minutes; standard deviation, 46 vs. 40 minutes, respectively)”. 

**Level of interest:** An article of importance in its field

**Quality of written English:** Needs some language corrections before being published

**Statistical review:** Yes, and I have assessed the statistics in my report.

**Declaration of competing interests:**

I declare that I have no competing interests.