Reviewer's report

**Title:** Active transport between home and school assessed with GPS: a cross-sectional study among Dutch elementary school children

**Version:** 1  **Date:** 20 November 2013

**Reviewer:** John Reilly

**Reviewer's report:**

**General Comments**

This is a generally well-written, though slightly lengthy, manuscript which describes an interesting study. The main strength of the study is the novelty arising from the use of GPS in active commuting to school research.

1.a I think the design and methods are essentially sound, and my main concern is over the extent to which the findings are supported by the results or are slightly overstated. Some statements are difficult to justify from my perspective (see specific comments below), and

1.b I think there is a need for different (more cautious) terminology in places (e.g. ‘correlates’ better than ‘determinants’) - to me these are ‘Major Compulsory Revisions’.

1.c I think that some additional caveats re. generalizability are indicated in the manuscript, particularly as the study is relatively small and cross-sectional, from one European nation with a relatively high prevalence of active commuting (particularly cycling), and conducted in one season only (Major Compulsory Revisions), and accuracy of various decisions and cutpoints for measurement of key variables in the analysis. The authors do acknowledge the main study limitations in the Discussion though.

Another general problem is the perception that the study simply states or confirms the obvious (that proximity to elementary school influences the probability of active commuting to primary school).

**Specific Comments-Major and Minor Compulsory Revisions**

1. Abstract
   a. ‘physical activity’ better than ‘Energy Expenditure’ in background.
   b. Is first sentence of Results section of abstract really justified? – is ‘at least once per week’ an adequate criterion for defining dominant travel mode? (and this is repeated in the Conclusions section which is not necessary and possibly not justified).

2. Introduction
   a. Last line of first para. - active commuting ‘has declined’ - where? needs brief expansion/clarification.
b. P2 is the literature on ‘determinants’ not better described as literature on ‘correlates’ or predictors. Determinants seems too strong a term and not consistent with the terminology proposed by Bauman et al in the Lancet series in 2012.

3. Methods
a. I was a little unclear as to how the statistical analyses were conducted and think this needs expansion/clarification.

b. There is no consideration of sample size- some justification of sample size and related issues (e.g. clustering), or justification of the decision not to mention them, would be advisable.

c. state in text the cutpoints for weight status based on BMI (e.g. Cole-IOTF if that is what was used), and clarify that ‘overweight ‘ includes the obese.

d. P9 has a stray word ‘Results’ in the middle of the paragr.- I think this is a typo.

e. how representative is the sample of the parent sample or of the Netherlands ? (e.g. in terms of proximity to school) .The proximity to school seems very striking and this might well have influenced the results and is also relevant to the generalizability of the results.

4. Results
a. I am not convinced that figures 1,3, and 4 are essential and would like to see a justification of their inclusion.

5. Discussion
a. Is quite lengthy but very well written, and does acknowledge the main study limitations- my major concern is that the acknowledgement of these limitations does not seem to translate into sufficient caution around the main findings as noted above.

b. Conclusions section ‘ active commuting as the dominant mode of travel’ needs more of a justification for this reviewer, and I would also like to be convinced that this was not just a function of the sample and setting. The authors may wish to add the appropriate caveat to this sort of statement.

Level of interest:An article whose findings are important to those with closely related research interests

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.