Reviewer's report

Title: A cross-sectional examination of the association between school policies and the built environment surrounding a school on overweight and obesity among grade 1 to 4 students

Version: 1 Date: 30 November 2012

Reviewer: Pippa Griew

Reviewer's report:

Thank you for the opportunity to review this paper. The research explores variation in children’s overweight and obesity between schools and investigates potential explanatory variables from the built environment within the school setting and surrounding area. This paper is well written and provides an interesting and valuable contribution to current literature. As the author acknowledges, having no individual energy intake data or data relating to food options within the school setting is a limitation of this particular study, however some additional details regarding the role of physical activity in explaining the variation in overweight seen between children from different schools would be of value here. Further specific comments are provided below:

Discretionary revisions:

1-In this paper obesity is not found to vary between schools, however it is possible that the non-significant p-value may be due to the relatively small numbers in this group. As both overweight and obese children represent 25% of the total sample perhaps it would be better to combine these two groups in analysis? Does this have any impact upon the results?

Minor revisions:

1-Please include participant age ranges in years (not just school grades) either in the abstract or methods section

2-Throughout the document it is stated that height and weight were objectively measured however very little detail is provided regarding measurement protocol in the methods section. As this is the main outcome variable for the study greater detail would be useful e.g.: were shoes and outdoor clothing worn/removed consistently; the make & model of measurement tools; whether the same researcher collected data between schools etc.

3-The final sentence in the first paragraph on page 12 should read 'he/she was less likely to be overweight'

4-This paper recommends targeting schools with limited access to recreation facilities during the school day presumably with the aim of increasing school-time physical activity. However, there are now a number of publications that explore
associations between objectively measured school-time physical activity and playground equipment/facilities, not all of which report significant associations or intervention effects (e.g. Cardon 2009 Prev Med (48) 335-340). This research should be acknowledged in the discussion.

5-School level differences were found to account for 7.7% of the variability in the odds of a student being overweight, was this before or after adjustment for physical activity? It would be interesting to know how much of the variance in overweight between schools is accounted for by differences in children's physical activity.

6-Similarly it would be useful to know how much of the between school variance in overweight is explained by the two significant explanatory variables (access to recreation facilities and support for active transport).

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 I have no competing interests