Reviewer's report

Title: Changes in Diet and Physical Activity Resulting from the Shape Up Somerville Community Intervention

Version: 2 Date: 12 May 2013

Reviewer: Noreen D Willows

Reviewer's report:

Discussion or Background.
• Discuss briefly - Has the intervention undergone implementation evaluation? That is, were the activities conducted and completed as planned? (Minor Essential Revision)

Methods
• The Methods section could better describe that it was up to the community of Somerville to carry out the multi-level interventions without researcher input in year 2. I was unaware of this aspect of the study until I read the discussion section of the paper. Although it is stated under Study Design that the intervention was transitioned to the community in year 2, the meaning of this is not clear. (Minor Essential Revision)
• Although Fig. 1 is a flowchart diagramming the flow of participants through the study, it is difficult to follow the paragraph under “participants” in relation to the Figure. For example, the last sentence states that the sample was 454 participants. Where is this number found on the figure? I also don’t understand the lines connecting the first boxes in the columns with the small inner boxes. The flowchart is confusing but necessary to explain what happened. Can the figure and paragraph description be redone to make them more understandable? (Minor Essential Revision)

Outcome measures
• How do you know the dietary questions were correlated with the Block Kids Food Screener? Were both tested on a subsample? The correlation was low – I would not say that they both gave the same information, even if the r values are significant. (Discretionary Revisions)
• What is the relevance of asking about hand washing? (Discretionary Revisions)

Statistical analysis
• What is the difference between the sample (n = 454), total consented sample, initial sample and the analytic sample? I found the use of these different terms confusing. Are they the same? How are they each different from the overall study population? These terms need to be better described if they are to be used. (E.g, see last paragraph of page 14.) (Minor Essential Revision)

I am not a statistician. I am assuming the authors' sought appropriate advice.
• What baseline values were included as covariates in all models? (Discretionary Revisions)

Results
• Why was only mother’s BMI reported? Isn’t father’s BMI relevant? Were all children living with their biological mothers? (Discretionary Revisions)
• Why is table 2 not mentioned in the results section? If it is important, shouldn’t it be part of the paper rather than a supplementary file? (Discretionary Revisions)

Discussion
• Were the behavioural changes reported sufficient to account for the lower BMI in the control communities? (E.g., 15 min less screen time, 2 oz/day less sugar sweetened beverages, increased participation in sports). (Minor Essential Revision)
• If the amount of fruits and vegetables served at school increased, then is it correct to state in the discussion that fruit and vegetable consumption did not increase? Should this be ‘home’ fruit and veg. consumption did not increase? (Discretionary Revisions)
• Does the second last sentence on page 14 refer to table 2? (Discretionary Revisions)

References
• Some incomplete (e.g., #12, 22). (Minor Essential Revision)

Table 1.
• How was weight category derived? (Minor Essential Revision)
• Why only Mom BMI reported? (Discretionary Revisions)
• Where is the information to explain the superscript for rules? (Discretionary Revisions)

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 that I have no competing interests.