Reviewer's report

Title: The effect of mode and context on survey results: Analysis of data from the Health Survey for England 2006 and the Boost Survey for London

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Reviewer: Jennifer Powers

Reviewer's report:

This is an interesting paper that provides some insight into the effects of mode of data collection on survey results. While I am aware that a companion paper has been submitted, further details are required in this paper so that it can stand alone.

Major compulsory revisions

1. Mode of data collection is likely to have effects on overall survey response and item non-response as well as the way in which questions are answered. Details need to be provided about response rates and possible biases for each of the surveys.

2. How did missing data compare for different questions and by mode of data collection? The authors have mentioned missing data for the summary physical activity measure in the results but it is important to know the levels of missing data for other questions. These should be included in the tables and are important stepping stones to the conclusions about physical activity and fruit and vegetable consumption.

3. I understand that the mode of data collection was the same for GHQ12 in both surveys, but this is not reflected in Table 4, which currently leaves the reader thinking that the data collection methods differed. A similar problem occurs in the abstract.

4. Could the authors please clarify how perceived social support was asked? From the methods I understood this was asked by interview and questionnaire, however in the discussion this does not appear to be the case.

5. The results for GHQ12 were unexpected, particularly given the earlier statement that once samples were matched, any differences could be attributable to measurement error rather than sample composition. The authors provide several possibilities for this difference, including context. Other possibilities might include that it was a chance finding given the number of statistical tests conducted, or the process of matching may not account for all the differences in the samples. The latter possibility raises some doubt about the other findings.

6. In the abstract, the authors state that survey mode and context can both affect the responses given, even for identical self-completion questions. While this
The paper provides some evidence that survey mode has an effect on response, context was not examined and only commented on in the discussion. On the same basis, context should be removed from the title of the manuscript.

Discretionary revisions

1. The differences in responses by mode of data collection were to be expected, with socially undesirable factors being acknowledged more frequently amongst respondents to the questionnaire than to interview. However can the authors really claim that self-completion questionnaires are more likely to elicit “honest” responses about potentially sensitive behaviours?


3. Could the description of propensity score matching in the body of the paper be replaced with the first paragraph of the Appendix, which I thought was more comprehensive?

4. Could the authors please expand unexplained abbreviations used in the text and tables?

**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