Reviewer’s report

Title: Assessment of Personal Exposure to Particulate Air Pollution: the First Result of City Health Outlook (CHO) Project

Version: 1 Date: 18 Feb 2019

Reviewer: Reviewer 2

Reviewer's report:

PEER REVIEWER ASSESSMENTS:

OBJECTIVE - Full research articles: is there a clear objective that addresses a testable research question(s) (brief or other article types: is there a clear objective)?

Yes - there is a clear objective

DESIGN - Is the current approach (including controls and analysis protocols) appropriate for the objective?

Yes - the approach is appropriate

EXECUTION - Are the experiments and analyses performed with technical rigor to allow confidence in the results?

Yes - experiments and analyses were performed appropriately

Statistics - Is the use of statistics in the manuscript appropriate?

Yes - appropriate statistical analyses have been used in the study

INTERPRETATION - Is the current interpretation/discussion of the results reasonable and not overstated?

Yes - the author's interpretation is reasonable
OVERALL MANUSCRIPT POTENTIAL - Is the current version of this work technically sound? If not, can revisions be made to make the work technically sound?

Probably - with minor revisions

PEER REVIEWER COMMENTS:

GENERAL COMMENTS: My overall impression of this work is that it is interesting although could benefit with more defined hypotheses. The authors could make it clearer how representative the participants (and therefore exposure profiles) are compared to the greater Beijing population.

The authors admit that this study is limited by sample size, and this publication is merely an introduction to the named project, so I look forward to seeing more publications to come!

ADDITIONAL REQUESTS/SUGGESTIONS:

Language is sometimes difficult to follow (e.g. "mucus" instead of "mucous membrane", "exposing" rather than "exposed") - revise throughout for English proficiency. Providing a translated version of the study website / questionnaire would be useful for the reader.

Some key literature, on in-transit exposures to particulate matter, is missing.

Authors should note representativeness of participant cohort compared to general Beijing population - very small proportion on population included, and recruitment via social media suggests participation bias.

Define all abbreviations at first use (e.g. OLS).

Consider particle number concentrations (PNC) for future studies, especially when considering second-hand smoke exposure.

Note: This reviewer report can be downloaded - see attached pdf file.

Are the methods appropriate and well described?
If not, please specify what is required in your comments to the authors.

Yes

Does the work include the necessary controls?
If not, please specify which controls are required in your comments to the authors.

Yes
Are the conclusions drawn adequately supported by the data shown?
If not, please explain in your comments to the authors.

Yes

Are you able to assess any statistics in the manuscript or would you recommend an additional statistical review?
If an additional statistical review is recommended, please specify what aspects require further assessment in your comments to the editors.

I am able to assess the statistics

Quality of written English
Please indicate the quality of language in the manuscript:

Needs some language corrections before being published

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