Reviewer's report

Title: Correlates of exposure to tobacco smoke pollution (TSP) among non-smoking adults in Bangladesh: Findings from the ITC Bangladesh Survey

Version: 1 Date: 16 April 2014

Reviewer: Ralph Caraballo

Reviewer's report:

This is a study of secondhand smoke exposure in the home in six administrative divisions in Bangladesh. Unfortunately I have major comments/revisions needed in case the Editors decide to publish it.

Minor Essential Revisions:

1. The common language to refer to cigarette (or other burning tobacco products) exposure to non users is secondhand smoke exposure. I am not sure why the authors are using a different terminology, tobacco smoke pollution. I recommend using secondhand smoke exposure (SHS) instead.

Major Compulsory Revisions:

1. Abstract: The Methods section of the abstract should tell how SHS was defined.

Results in the Abstract: Not clear if exposure at home means all who live in the home are exposed or only the participants (respondents) in the survey.

Conclusions in the abstract: Given that the authors are referring to interventions in the home, they should not call it "policy initiatives." Probably a better term is educational initiatives.

2. Background: First sentence: Given that the authors are referring to global rates of SHS, probably the citation used (U.S. specific) is not the best one. Should use reference 4 better for this statement.

3. Methods, data source: It says that in wave 1 there were 1,3111 smokers and in Wave 2 there were 2,521 smokers, which is only about 19% of wave 1 smokers. Is there a typo here or is this correct?

4. Exposed to TSP (SHS) was defined as having complete (the manuscript do not specifies what is meant by "complete") smoking rules in the home AND in the case in the home there were more than 1 participant in the survey, both (or more if more than 2 participants in the home) have to agreed in answering a complete ban in the home to be considered "non-exposed." This is a major issue given that the measure of exposure is self-reported as opposed to validated real SHS exposure (it is known, at least in the U.S., that people greatly underestimate their SHS exposure). In addition to this, if more than 1 participant in the home, they need to be in agreement the home have complete no smoking rules (in the...
home) to be considered non-exposed. This is bias toward higher SHS exposure in the home.

5. Statistical Analysis: Stepwise regression analysis is no longer recommended as a statistical tool (Annals Guidelines on Stepwise; http://wileyeditionservices.com/en/). This was used to select variables in the study.

Given the issues above, I am not confident the results in this study are reliable, including the major issue if the authors truly measured SHS exposure in the home. Probably what they really measured was home rules.

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

**Quality of written English:** Acceptable

**Statistical review:** Yes, and I have assessed the statistics in my report.

**Declaration of competing interests:**

No competing interests to report.