Reviewer’s report

Title: Individual and neighborhood-level socioeconomic characteristics in relation to smoking prevalence among black and white adults in the southeastern United States: a cross-sectional study

Version: 1 Date: 7 October 2011

Reviewer: Gavin Turrell

Reviewer’s report:

Major compulsory revisions

1. The paper was very US-centric and gave little consideration to previous work published outside the US. Ideally, we want studies that produce findings that allow us to infer from the specific to the general: it is more important to know if and how neighborhoods influence smoking behaviour in general (not just in the Southern US) and so a greater focus on neighborhood-based studies conducted elsewhere (e.g. Europe, Asia) would help broaden the relevance of the study. A quick search of Medline using the terms ‘neighborhood’ and ‘smoking’ identified 260 studies, many of which focused on SES and the contribution of the neighborhood context to smoking behaviours.

2. I would like to see the authors be more critically reflective about the sample used in the study. Clearly, this isn’t a population-based representative sample as it was recruited via CHCs which provide health services primarily to low SES persons. This approach introduces a number of limitations: for example, it is not possible to calculate a response rate for the study as there was no sampling frame; we have no idea how representative the sample is of the neighborhoods where the participants lived; and recruiting primarily low SES participants increases the socioeconomic homogeneity of the sample, so the SES differences that were reported are likely to be underestimated vis-a-vis the broader population.

3. For various reasons, 7,655 (10.5%) of participants were excluded prior to analysis: based on my experience with missing and excluded data it is very unlikely that these exclusions were random, and are likely to be related to SES; hence their removal would further reduce the socioeconomic variability of the sample.

4. The issues raised in points 2 and 3 might account for the small neighborhood SES effects observed in the study.

5. Page 9. The authors note that the SES associations “varied to some extent by race and gender”. Why not test this formally with some interactions? Given the large sample-size it would seem to have sufficient power to test for interactions.

6. Page 11: “A major strength of this investigation.....participants of generally
similar individual-level socioeconomic and geographic situation”. I disagree with this statement: socioeconomic homogeneity is a limitation, not a strength. Significant and sizeable SES differences can only be detected in a sample with inherent socioeconomic variation. Again, this might account for the limited neighborhood effects that were observed.

1. Page 12: “However, it could be the case that current neighborhood may exert influence on the continuation of smoking even if it did not influence the initiation”. A broader reading of the neighborhood and smoking literature (beyond the US) would better inform this speculation, as work has been done on this issue. See for example: Giskes K, van Lenthe FJ, Turrell G, Bruch H, Mackenbach J. A longitudinal follow-up of smokers shows those living in deprived areas are less likely to quit. Tobacco Control 2006; 15:485-488.

Minor essential revisions
I acknowledge that the study was approved by institutional review boards, but did the persons visiting the CHC for health care know and give consent for their information to be used as part of the study? It would be easy to clarify this with an extra sentence indicating consent from participants was obtained (in addition to the review board approvals).

Page 6: given the sample and the recruitment method, it is not surprising that the smoking prevalence was high as participants were mostly low SES.

Discretionary revisions
I didn’t think Figure 1 was necessary and could be deleted without any loss of impact

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

Quality of written English: Acceptable

Statistical review: Yes, but I do not feel adequately qualified to assess the statistics.

Declaration of competing interests:
'I declare that I have no competing interests'