Reviewer's report

Title: Is the "Glasgow effect" of cigarette smoking explained by socio-economic status?: a multilevel analysis

Version: 1 Date: 15 December 2008

Reviewer: Carlos Ascaso

Reviewer's report:

This study analyzes whether high smoking rates in Greater Glasgow area are related to the socioeconomic profile. The study is interesting and well performed, however several points should be addressed.

Minor Essential Revisions

Methods

1. The populations studied in the three surveys decrease despite the wider age range which may create a bias. I suggest the authors reanalyze the data including subjects from 16 to 64 years of age. This may also reduce the number of missings which the authors point out, particularly in the third survey year. If this number does not decline with the variation in age range I suggest the distribution of the missings be analyzed according to the survey years and the individual subject characteristics (age, smoker or non smoker, socio-economic level).

2. Although in the Discussion the authors comment on the limitation of the definition of smokers, the actual definition in Methods is somewhat unclear and should be better defined.

Results

1. With regard to the comparison of the age of the Greater Glasgow population with that of the remainder of Scotland it cannot vary and not be statistically significant. If it is not significant it is not different. I suggest that the authors comment in Methods or Results that the variables with a p less than 0.1 are included in the multivariate analysis.

2. The design of table 1 would probably improve if the percentages were stated in columns rather than rows to facilitate the understanding of the results in the text.

3. In table 2 in the column on Women non/ex smokers in the Greater Glasgow I believe there is an error: 8026 (60) should be 1320.

Discussion

1. The Discussion should include an extension of the effect of the missings imputed.

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.