Reviewer's report

Title: Gender differentials in the evolution of cigarette smoking habits in a general European adult population from 1993-2003

Version: 3 Date: 6 February 2006

Reviewer: Paul Hewson

Reviewer's report:

General

Major Compulsory Revisions (that the author must respond to before a decision on publication can be reached)

I don't see that many of the earlier points have been covered in the paper.

1. So the paper is an INFORMAL comparison of gender differences. It seems strange that the comparison referred to in the title (gender differences) is only compared informally when other comparisons are made formally. I don't feel that some of these other formal comparisons are sensible (e.g. point 7). Either the analysis or the title / aims etc. of the paper should be adjusted.

2. I don't see why these adjustments can't be made to the model - I appreciate it may not be sensible or interesting to make them the prime focus of the analysis. Is 11 years really too short to age adjust the sampled population? I think there should be some justification that age adjustment isn't necessary.

3. I'm still nervous about the simple linear trends applied to these data. The trends really do not appear to be simple lines.

4. I am not happy with the reply to this question. The data might be "just as reliable" as other similar studies, but this paper has been submitted to BMC Public Health, a fairly general journal. Some indication should be given as to the limitations of the data being used. I can't see how this concept isn't subject to recall bias, and this should be briefly acknowledged, with reference to other work where appropriate. Your study is also subject to differential recall bias in that you define ex-smokers differently to some other studies. Do you think your definition might be subject to more bias (because people are trying to think whether they stopped 11 or 13 months ago) than other definitions.

5. There is still no clear explanation of all the models you have fitted in your analysis; it was much easier to follow the models used in your supplemental paper.

6. I am still interested in CIs, partly because it is good practice, partly because it would be interesting to see whether your model CIs match the data or not.

7. If the linear trends are simple descriptives they should not be given model status with parameter significance stated. I still feel these should be density plots - why would we expect anything
resembling a simple linear trend with different ages? You have not given me any reason to believe that it was sensible to fit these models in the first place.

8. I still feel the description in the paper is inadequate.

9. Dealt with earlier.

10. Can you provide any justification for not needing age adjustment?

------------------------------------------------------------------------
Minor Essential Revisions (such as missing labels on figures, or the wrong use of a term, which the author can be trusted to correct)
------------------------------------------------------------------------
Discretionary Revisions (which the author can choose to ignore)

What next?: Unable to decide on acceptance or rejection until the authors have responded to the major compulsory revisions

Level of interest: An article of limited interest

Quality of written English: Acceptable

Statistical review: No

Declaration of competing interests:

I declare that I have no competing interests.