Reviewer’s report

Title: The influence of societal individualism on a century of tobacco use: modelling the prevalence of smoking

Version: 3 Date: 7 October 2015

Reviewer: Azizur Rahman

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Minor Essential Revisions.
(Please see attached document for detailed comments)


The study is on an interesting topic and it is fairly conceived with basic novelty to be published on BMC Public Health. However, I have several concerns about the manuscript which are outlined below.

The theoretical framework could be more thoroughly developed and the methodology, especially the social utilities scheme should be explained in a clear way, and for a non-specialist audience. While the method is not completely new and a list of other publications are cited to follow up for getting clear understanding about the model, nevertheless needs to have enough exposition of the method so that the interested general reader can get some better understanding. The current version of this paper somewhat fails in this regard. Just for an example, after immediately the Eq (1), the representation of a and t should be mentioned with its values.

The assumption of an individual's decision to smoke is based on the desire to maximize total utility (that includes individual utility and social utility) seems okay, but the concept of measuring the social utility is not very openly illustrated. Typically, the social utility perhaps link with complex social interactions of smokers.

There needs to be a much better explanation of the results which are very abridge in the current version. Perhaps needs some more highlights on the

Although the model fitting section is depicted well, all simulation code and necessary data sets could be available (as an archive) to readers for use. Moreover, in page 7, line 41, the equation should be corrected to \( E_{i,2} = ||X_{#i} - X_{#2}||^2 \) and then in line 43, \( E_2 = #_{i}^2 E_{i,2} \). similar should be applied to line 45. How the “length of X #i” has been estimated is not clear at all!

There needs to be a much better explanation of the results which are very abridge in the current version. Perhaps needs some more highlights on the
significant findings. Also, in page 9, line 40, it would be “… from 1966 to 1973 (see Fig. ...)”.

Discussion section is nicely written. All limitations seem realistic and some of them are easily justifiable. However, the alternative explanations in page 10 make things somewhat ambiguous.

Finally, the authors may test their model with data from some non OECD or developing countries. Perhaps this could be a future research agenda.

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

**Quality of written English:** Needs some language corrections before being published

**Statistical review:** No, the manuscript does not need to be seen by a statistician.

**Declaration of competing interests:**

I declare that I have no competing interests.