Reviewer's report

Title: The effect of smoking status on healthcare utilisation and costs: results from the population-based KORA F4 study

Version: 2 Date: 13 December 2012

Reviewer: Marta Trapero-Bertran

Reviewer's report:

Dear authors,

The question posed is important, well defined and original in your context. The data sounds well controlled, though not much details have been given in your paper about how you have dealt with non-responses (blank responses). The interpretation for the bottom up approach is well balanced with the data, though in terms of comparing your results with other published papers using the top-down approach, I think you should have look and discuss these extensively in the discussion section. Specially, if you incorporate in your abstract and conclusions that you are reaching different results in your analysis with those papers already published and using other type of methods (top-down). Methods are acceptable well explained, though more details could have been given in order to deal with the survey data. This is important in your case in terms of replicating your analysis in other countries with similar databases. Strengths and weaknesses of the methods are well stated in the discussion, though further explanations could have been given regarding the different definitions there are inter countries for smokers, former smokers and non-smokers. Writing and organization is really well set in the paper, so I think that this has been well done by the authors! The paper is easy to follow by the reader! Tables and figures are ok!

Major Compulsory Revisions

This is a good and relevant paper to be published, though I think it is important to address first one issue. The only relevant problem I see with this paper is that the title and conclusions focuses in terms of smoking, however, methods and results do not do so! The paper explains methods and results in general in terms of this particular analysis on this database, but, I think, that you should focus the whole paper in the smoking data analysis, if you really want to introduce the smoking topic in the title. If you just want to analyze the database, not focusing on smoking that is fine, but probably will be other different papers with another aim and objectives! So, I think that methods and results should be partly rewritten trying to focus in the smoking context. This should be sorted before publishing this paper, because it is difficult for the reader in terms to focus the attention in the results and establish connections among the different sections of the paper.

Minor Essential Revisions

I will strongly recommend incorporating the definition for smokers, former
smokers and non-smokers that you are considering in your paper. This is really important in terms of comparing your results across countries (especially, to know if you can do sensible comparisons or not!).

Extensive comparisons between results of this paper and results on papers using top-down approaches should be accrued in the discussion section.

**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' below