Reviewer's report

Title: Trends in smoking behaviour among Estonian physicians in 1982-2014

Version: 0 Date: 11 May 2017

Reviewer: Grace Joshy

Reviewer's report:

Thank you for the opportunity to review this manuscript on smoking behaviour among Estonian physicians from 1982-2014. The manuscript summarises results from three cross-sections surveys on smoking. My comments to the manuscript below.

Methods -

Does the source databases used for the surveys include retirees? If so is it the same case for all the three databases?

The methods needs to include some information on who participants were invited - was invitations send to all physicians in the database, or some sort of sample was used?

The authors have used open age brackets (-34 and 65+). For clarity, please specify the age range of the population the results section.

Line 105 says that smoking was classified as "current smoking and non-smoking". Specify which categories (daily/occasional/past/never) were combined to get these two categories.

The authors refer to smoking prevalence as "prevalence rates" throughout. "Rate" refer to ratios that incorporate a dimension of time in the denominator. In this case the estimates are simply proportions and are best described as something like "prevalence estimates".

Results

The age range needs to be specified. Also, it would be good to characterise the study population be tabulating the n and % of people in different age bracked by year and sex - a supplementary table would do.
Line 212-124. This information is better presented in a table. Were they any missing cases in age of smoking initiation?

Line 127 - Sort of defines what current smoking is. This should be done in the methods.

The authors have calculated crude and age-standardised prevalence. It needs to be clarified whether comparisons were made use the crude or age-standardised estimates, for example lines 136-139 (Overall, the current smoking rate decreased by 2.8-fold among male and 2.4-fold among female physicians between 1982 and 2014….). Using crude estimates is problematic as they do not incorporate adjustment for age. I recommend estimating prevalence ratios adjusting for age. Several references are available - one example is International Journal of Epidemiology, 2015, 1660-1672doi: 10.1093/ije/dyv13 . Other instances of comparisons using crude estimates are lines 159-160, 202-203, 218-225.

Line 171 ("Past smoking .."). The sentence needs clarification; "gap" is not the right word here.

Line 171 - "increased with increasing age" - better phrased as "higher among older age groups"

Discussions -

The first sentence states that the authors investigated how the "smoking behaviour had changed over time". This is not quite correct since the study is not following up physicians and looking at changes in smoking behaviour over time. It rather looking at trends over in smoking behaviour.

Strengths are unusually placed at the very beginning after the opening sentence. This is better placed after summarising the main results and synthesising in the context of other studies.

Lines 197-199 - briefly mentions what the changes were.
Are the methods appropriate and well described?
If not, please specify what is required in your comments to the authors.

No

Does the work include the necessary controls?
If not, please specify which controls are required in your comments to the authors.

Yes

Are the conclusions drawn adequately supported by the data shown?
If not, please explain in your comments to the authors.

No

Are you able to assess any statistics in the manuscript or would you recommend an additional statistical review?
If an additional statistical review is recommended, please specify what aspects require further assessment in your comments to the editors.

I am able to assess the statistics

Quality of written English
Please indicate the quality of language in the manuscript:

Acceptable

Declaration of competing interests
Please complete a declaration of competing interests, considering the following questions:

1. Have you in the past five years received reimbursements, fees, funding, or salary from an organisation that may in any way gain or lose financially from the publication of this manuscript, either now or in the future?

2. Do you hold any stocks or shares in an organisation that may in any way gain or lose financially from the publication of this manuscript, either now or in the future?

3. Do you hold or are you currently applying for any patents relating to the content of the manuscript?

4. Have you received reimbursements, fees, funding, or salary from an organisation that holds or has applied for patents relating to the content of the manuscript?

5. Do you have any other financial competing interests?

6. Do you have any non-financial competing interests in relation to this paper?
If you can answer no to all of the above, write 'I declare that I have no competing interests' below. If your reply is yes to any, please give details below.

I declare that I have no competing interests

I agree to the open peer review policy of the journal. I understand that my name will be included on my report to the authors and, if the manuscript is accepted for publication, my named report including any attachments I upload will be posted on the website along with the authors' responses. I agree for my report to be made available under an Open Access Creative Commons CC-BY license (http://creativecommons.org/licenses/by/4.0/). I understand that any comments which I do not wish to be included in my named report can be included as confidential comments to the editors, which will not be published.

I agree to the open peer review policy of the journal