Reviewer’s report

**Title:** Incidence and associated risk factors for premature death in the Tehran Lipid and Glucose Study Cohort, Iran

**Version:** 1 **Date:** 25 Oct 2018

**Reviewer:** Michael Rosato

**Reviewer's report:**

This is an interesting and potentially useful piece of work. It is mostly well written, though I note some places where the text should be amended. This is not exhaustive and the authors should review the whole text again to satisfy themselves that it is easily readable. Generally, it should be published pending some relatively minor corrections.

The discussion could be trimmed somewhat - compared with the rest of the paper it is a bit overlong, and seems to unbalance the paper.

Finally, the authors could examine the 'obesity paradox' in more detail - the inclusion of a univariate (or minimally adjusted) analysis may have helped elucidate this.

Background..

page 3: line 8 'to the' .. 'to be the'; line 13 'in Tehran' .. 'in a Tehran';

line 18: 'population based' usually treated as a compound word - as elsewhere in the paper - 'population-based' same with 'follow up' .. follow-up' (line 27)

line 26, and elsewhere: given that they are looking at deaths before the age 70.. it is more correct to say '30-69 years'

Definition of terms:

The sentence beginning 'In the first phase.' is probably too long - at eight lines. The authors should consider breaking it up into two or three sentences. This will make it more immediately understandable.

Also, maybe the clinical definitions could be presented more succinctly as a small table, with a shortened text.
line 13: 'categorized' .. 'categorize'

page 5: line 11 'as event' .. 'as the event'; line 13 'who lost'.. 'who were lost'

line 16: 'age as time scale' - clarify

results line 26 page 6: the OR associated with obesity should be flagged as indicative only - it is not significant.

page 7 line 21: case control and cross sectional should both be hyphenated - cross-sectional and case-control

line 23: 'conducted a' should be 'conducted using a.. cohort study design’

page 8 line 7: comma after 'prevention' and comma after patients.

line 11: hyphenate - middle-aged

line 12: 'risk reached to null' .. confusing .. do the authors mean 'became non-significant'.. ?

line 20: 'a favourable trend for the rate of smoking' .. confusing.. could the authors clarify.

line 22: should be 'Muller et al' - and maybe the year of publication in brackets

line 26: 'PAF that' .. should be 'PAF than'..

page 9 line 6: as with Muller et al above

line 12: 'dose-response'

line 20: 'Iranian individuals'

**Are the methods appropriate and well described?**
If not, please specify what is required in your comments to the authors.

Yes

**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.

Yes

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:

Needs some language corrections before being published

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 organization 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