Trish Groves

Editor in chief, BMJ Open

Dear Trish Groves,

We are pleased to submit a revised version of the paper entitled “**Inequalities and deterioration in average lifespan among adults in Mexico, 1990-2015: A cross-sectional demographic cause-of-death analysis**” for consideration as Research Article in BMJ Open.

We thank the editorial board for the opportunity to revise our manuscript. We have carefully considered reviewers’ comments and provided a point by point answer to every each of them.

The manuscript has been improved in the following:

Regarding R1 comments:

1. A clear articulation of the objective of the paper has been added to the introduction.
2. Possible sources of bias have been extensively discussed (e.g. uncertainty measures and re-distribution of ill-defined causes of death) in the paper and several robustness checks have been performed to validate our results.
3. We have described fully the methods used in the paper, adding technicalities into the supplementary file, and enhanced figure 3 as he R3 suggested.

Regarding R2 comments:

1. We added suicides to the cause-of-death classification that we work with, and discussed this cause of death in more detail in the discussion section.

As a result of these changes, in combination with the fact that we study 192 populations (32 states divided in 2 sexes and 3 age groups over a period of 25 years), our manuscript is over the word count (5,770).

The three authors have contributed to the writing of the manuscript and have no conflict of interest, financial or others.

Sincerely,

José Manuel Aburto

Tim Riffe

Vladimir Canudas-Romo