Reviewer's report

Title: Social inequality in mortality: gender and socioeconomic differences in a Brazilian city

Version: 1 Date: 12 October 2011

Reviewer: Rasmus Hoffmann

Reviewer's report:

Major Compulsory Revisions
No major compulsory revisions

Minor Essential Revisions
1. Results, 1st paragraph, 1st sentence: deeper than what?
2. Please briefly explain what the aging index is.
3. Results, 2nd paragraph (middle): more pronounced than what?
4. Results, last but one paragraph: RR is not a rate difference.
5. Discussion, 11th paragraph: Please use terminology more carefully: “higher socioeconomic differences in mortality rate ratios” is probably not what you meant.
6. Can you try to explain why the social mortality gradient is larger for women than for men?

Discretionary Revisions
7. My main recommendation is that you check whether it is possible to draw maps that reflect the SES and the mortality level for each of the 49 city areas. By grouping them into three SES groups you loose a lot of information and finally come up with a SES mortality gradient that everyone would expect. A map would offer additional visual information on the spatial pattern of SES and mortality that may lead to interesting interpretations.
8. Sometimes you speak about the relationship between social inequalities and health. It would be clearer to say “the relationship between social status and health”. Your expression may be misunderstood because there is also a separate discussion about whether or not the degree of social inequality influences health, which is not the topic of your study.
9. This use of terminology also negatively affects your title: if you spell it out, it says "socioeconomic differences in social inequality in mortality" while your study is simply about socioeconomic differences in mortality.
10. Discussion, 4th paragraph: “decreasing gradient” is misleading, I guess you mean decreasing death rates.
11. Discussion, last but two paragraph: “population as the unit of analysis”. It is more precise to say that the city area is the unit of analysis.
12. Discussion, last but one paragraph: The first and second sentence contains a repetition.

Minor issues not for publication:
Generally, some language correction is needed. Here I cite just some examples:
- Too much use of the article “the”.
- Mortality data would sound better than death data.
- First paragraph of the discussion: “the highest mortality excess are…”
- Discussion 10th paragraph: reference numbers not correct.
- Conclusion, 2nd paragraph: it is crucial to cooperate.
- All over the text, I think the capital letter for Low, Middle and High SES are not necessary.
- The style of referencing is not consistent superscript numbers versus numbers in brackets.
- Please rearrange the line spacing in Table 1 as it is hard to see where a new row starts.

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