Reviewer's report

Title: Widening social inequality in life expectancy in Denmark. A register-based study on social composition and mortality trends for the Danish population

Version: 2 Date: 7 November 2012

Reviewer: Emmanuelle Cambois

Reviewer's report:

The authors adequately addressed the issues raised in my previous report. I thank them for their discussion of the comments. I think the paper is suitable for publication.

I only have a suggestion ("discretionary revision") regarding the results on the gains in LE in female lowest income group (page 7 and discussion section).

Rather than concluding that the female lowest income group gained more than the intermediate groups, I wonder whether the authors could comment on the (too) small gains in the 3 female highest income quartiles compared to men's gains and to female lowest quartiles' gains. Dane women could have gained less than expected over the period due to small increase in LE in these income groups (but not the lowest) which could be partly due to smoking, affecting these groups (but not the lowest in the elder age groups). Smoking and changes in life and work conditions probably affect the male mid-adult lowest income group whose LE decreased.

Finally, regarding the discussion, my previous report was suggesting to be more synthetic, concentrating on patterns found elsewhere (as done for Belgian results), rather than providing all the figures, and discuss more the overall social changes that might have contributed to change the differentials. But this is fine like this.

Level of interest: An article of importance in its field

Quality of written English: Acceptable

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