Reviewer's report

Title: Socioeconomic differences in mortality amenable to health care among Finnish adults 1992-2003: 12 year follow up using individual level linked population register data

Version: 2 Date: 5 September 2012

Reviewer: Martin Tobias

Reviewer's report:

No major or minor revisions

Discretionary revisions as follows:

This is an excellent study, which makes full use of the high quality, linkable data available for the Finnish population as well as relatively sophisticated statistical methods.

I have no major compulsory or minor essential revisions. The following discretionary revisions are suggested to improve clarity:

Methods and Results:

1. Under 'Statistical Methods' the authors state that "average annual changes were obtained from estimates of linear time trends". More detail about the linear regression would be helpful, and how linearity was assessed. Under "Results" brief mention could be given as to how well the data in fact fitted a linear model.

2. I am slightly unclear regarding the inequality metric. As I understand it, the authors derived their measure of relative inequality from Poisson regression models. Does this not imply that the measures are in fact RII (relative index of inequality) rather than RRs (rate ratios) as stated?

3. Also, the Results are often described in the text as "differences", yet absolute measures of inequality are not provided.

4. Trends in relative inequality are summarised in the "Period interactions" column of Table 2. Yet this doesn't provide much information about the magnitude of trend (if any), and it is left to the reader to interpret the comparison of period 1 to period 2 versus period 2 to period 3.

Discussion:

1. The lack of consensus as to which CODs should be considered 'amenable', never mind the much more difficult categorical assignment of amenable CODs to subcategories within the amenable rubric, is glossed over. More discussion of how this assignment was made might be helpful to the reader.

2. Also, while good reasons are given for separating IHD out into a subcategory of its own, it is hardly referred to again in terms of results or interpretation.
3. Confounding by (differential) disease incidence is briefly mentioned but some discussion as to why this may not be important in relation to the research question would be worthwhile.

**Level of interest:** An article of importance in its field

**Quality of written English:** Acceptable

**Statistical review:** Yes, but I do not feel adequately qualified to assess the statistics.

**Declaration of competing interests:**

No conflicts of interest