Reviewer’s report

Title: The burden of diabetes mortality in Finland 1988-2007 - A brief report

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Reviewer: Richard Miech

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This is a strong article that reports trends in diabetes-related mortality in Finland from 1988-2007. The authors make use of an exceptional data collection system in Finland to examine the extent to which diabetes-related mortality has increased or decreased in recent years. The authors use appropriate statistical techniques to address their research question. They find that, overall, diabetes-related mortality has decreased, which suggests improvements in diabetes care given that the incidence of diabetes increased over the time period of the study. The authors also find that the burden of diabetes related mortality falls disproportionately on people in the lower socioeconomic strata.

A number of modifications to this manuscript are required to make this paper suitable for publication in BMC Public Health, as outlined below.

Major Compulsory Revisions

1) Figures 1 and 2 should more clearly indicate the change in “causes of death” coding that took place in 1995-96. The text clearly notes this change (on page 5) and notification of this important change should be carried forward to the Figures. An abrupt change in trends that takes place after 1996 is apparent in both Figures, a change that is clearly a result of the modified ICD coding procedures and not substantive. At a minimum the Figures should include a note about the changes in the ICD coding, and ideally the Figures would be modified so that a break is apparent in the Figures in the year 1996.

2) The update of the ICD nosology in the middle of the analysis period should be included as a limitation of the study. Its not a fatal flaw for the purposes of this project, but its implications for the study findings study should be explicitly considered.

3) Coding of occupational status should be made consistent. In some cases an individual’s occupational code is based on his/her own current job, while in other cases it is based on the job of the spouse (i.e. for women working at home). This coding process confounds individual-level and family-level socioeconomic status (SES), and makes interpretation of the results difficult. All respondent SES should be coded to either the individual or family level.

4) The authors should more explicitly describe the benefits of using “contributory cause” of death information for their analysis. The way the paper is currently
framed, the inclusion of “contributory cause” is listed as a major contribution of this paper (it is described as a benefit in both introduction and the very last sentence of the manuscript), but information on *why* this is a benefit is lacking. Most likely it is a contribution, but the authors should more clearly spell out its benefits.

Minor Essential Revisions
1) The author Miech is misspelled on page 4.

Discretionary Revisions
1) Educational levels of the respondents, if available, offer a more straightforward measure of individual socioeconomic status than occupational status.

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