Reviewer's report

Title: Official statistics and claims data records indicated non-response and recall bias within survey-based estimates on health care utilization in the older population

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Reviewer: Falk Hoffmann

Reviewer's report:

This is an interesting manuscript on differences in health care utilization between survey-based estimates and other data. Although the indirect comparison is a very tricky task, the methods are clearly described and all decisions are well documented.

Major compulsory revisions:
- On page 6, the third methodological difference is that data sources cover different reference population. The authors emphasize nationality and private insurance. However, as mentioned in the discussion section (page 14), the AOK insures a very “special” population. These persons have a lower socioeconomic status and a higher morbidity (which might lead to higher health services use). This has also been shown in different surveys:

As a consequence, I would suggest to conduct a sensitivity analysis, in which only persons insured within the AOK (KORA-Age) are compared to claims data. Is membership in different statutory health insurance funds assessed in KORA-Age?

Minor essential revisions:
- Why were claims data of 2006 used (as 2007 would be more close to the study period of KORA-Age)?
- The differences in persons using services of the long-term care is interesting but not unexpected. Could this be due to an exclusion of persons living in nursing homes in the KORA-Age study? Are there any data on non-responders (which were responder in KORA S1 to S4)?
- Why were drugs used as a proxy for diabetes (page 9) and not diagnoses in claims data and self-reports in the survey?
- What was the reason to show confidence intervals for comparisons on diabetes
only?

Discretionary revisions:
- No decimal place is given for the Delta in Table 3, but for Delta in Table 2.

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.