Reviewer’s report

Title: The Cross-Sectional Average Length of Healthy Life (HCAL): A measure that summarizes the history of cohort health and mortality

Version: 1 Date: 25 Jun 2020

Reviewer: Hendrike Cornelie Boshuizen

Reviewer's report:

I compliment the authors on the extensive revision of the manuscript, which has been further improved.
I have only a single comment, namely on the calculation of the confidence intervals / standard errors. In the calculations the authors apply smoothing, but if I understand correctly, they calculate the standard errors of the smoothed prevalence rates as if they were raw (not smoothed) prevalence rates, based on the number of individuals in the age/gender/calendar year group. The idea of smoothing is to stabilize the estimates by borrowing information from neighboring categories, and this has the effect to decrease the standard error of the smoothed prevalence rates compared to the raw prevalence rates: The prevalence rate is no longer only based on the n individuals in the particular age/gender/calendar year group, but also on information of individuals in neighboring groups (ages or calendar years). So the confidence intervals as calculated with this method will be too wide. This could be mentioned somewhere in the paper.

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