Reviewer's report

Title: European Project on Osteoarthritis (EPOSA): methodological challenges in harmonization of existing data from five European population-based cohorts on aging

Version: 2 Date: 19 August 2011

Reviewer: William Reichmann

Reviewer's report:

Major revisions

Harmonization process
--Since you harmonize radiographic OA even though only 2 cohorts assess the variable, why can’t you harmonize other variables where it was only assessed in 2 cohorts? It seems if you are willing to do it for one then you should be willing to do it for all.

--It seems that site specific self-reported OA was harmonized if there were 2 or fewer cohorts but in Methods you say that 3+ cohorts had to have the variable

--Definition of self-reported OA in Pro.V.A.: This only pain/functional difficulty. Estimates of prevalence are likely way over-estimated because the pain/difficulty could be due to other conditions.

Weighting process
--Should note where you received your population estimates for Nexp for individual countries – it was done for the European population.

Methods
--The authors should explain how they derived the confidence intervals reported in Table 4. Were the weights used? If so, which weights? Or was it a crude analysis?

Figure 1
--Could more detail be given for the examples under the no category? Maybe provide the cohorts that assessed gait pattern vs not and provide the differences in social participation that excluded that variable from being harmonized.

Level of interest: An article of importance in its field

Quality of written English: Acceptable

Statistical review: Yes, and I have assessed the statistics in my report.

Declaration of competing interests:
I declare that I have no competing interests