Reviewer's report


Version: 1 Date: 12 January 2015

Reviewer: Ahti Anttila

Reviewer's report:

The paper looks to cervical cancer mortality trends in Spain. As the quality of the original statistical data is very poor, the study has implemented a correction method that seems (and has been also earlier reported) to work rather well but not necessary as well as the high-quality original data would have been. The paper also extends data to most recent periods as well as reports unique findings by regions. Fortunately, the mortality data quality has improved towards more recent periods, even though it seem yet far from optimal. This means that the information on the recent mortality burden is already rather credible but the data system does not enable easily assessments of impact of interventions?

Cervical cancer mortality is an important issue in the country - also in many other countries - because there is still much space for prevention. The paper is well written and analyzed, I have some remarks below how to make the data better comparable to other countries.

Major compulsory Revisions

None.

Minor Essential Revisions

1) Page 4, line 113 (and elsewhere in the manuscript where age standardized results are handled): could you add the age group 0-19 also (importantn particularly to the population denominator)? This would provide then a comparable estimate to standard statistics on cervical cancer mortality so that the estimates can be compared to data from other countries. Still, e.g. in the age-specific analyses that age group is not needed.

2) Same "...by age group 20-44,...) and page 5 line 125 'five-year age groups'; I did not follow if the study used 5-year age groups thorugh out e.g. in the standardization and then just presented the results by the broader groups; or how did you do? Please specify.

3) Page 5 lines 132-136, and later: Often, in case of a decreasing trend, a loglinear shape of the trend is fitted, as it takes into account that the decrease can be first larger but then when time passes the trend approaches to the saturation level. Then no 'joint point' may be needed. However, when looking to the Figure showing age-specific and overall standardised rates it seems that the
current modelling with lines trend and joint points works acceptably and almost comparably to log-linear modeling. There seemed to be in the results a clear 'joint point' in the year 2003, but it was not discussed in detail. It would be beneficial in the Discussion section to explain why such a 'joint point' was there. One likely explanation is that there may have been a change in the register data quality by decreasing the number of Uterus not otherwise specified? Are there any other possible reasons?

4) I was a little astonished that in the Conclusions there was no statement about the need to improve data quality on cervical cancers by increasing availability of validated population-based cancer registries in the regions, as well as improve the quality of the mortality data. I my understandingly such aspects would be important.

Discretionary Revisions

5) Abstract, lines 52-53 please delete words 'in the XXI century', it would make this better readable;

6) Background, page 3 line 69, "...especially in younger cohorts." The sentence needs reference(s). I understand that at least key references are given and discussed in detail later (in page 9) but some references could be mentioned here as well.

7) Same reference(s) needed to be included also in page 7 line 205.

8) Page 7 lines 211 'ralentization', is it English? I did not understand the word, but google translator from Spanish suggested 'slow-down'.

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:

None.