Reviewer's report

Title: Breast and prostate cancer: an analysis of common epidemiological features in mortality trends in Spain

Version: 2

Date: 5 October 2014

Reviewer: Montserrat Rue

Reviewer's report:

General comments
1. The question posed by the authors is well defined. According to them, the objective of the study is to ascertain the similarities and differences between mortality trends in breast cancer among women and prostate cancer in Spain using age-period-cohort models, and analyse the correlation between incidence of breast and prostate cancer at cancer registries locally and world-wide.

2. The methods are appropriate and well defined, and the data are sound. The statistical methods are appropriate and well described. The manuscript is well written and the tables and figures illustrate adequately the results of the data analysis. The discussion and conclusions are adequately supported by the data.

Minor essential revisions
1. Page 6, line 203. The authors comment that in 2008, there was another upturn in the prostate cancer mortality trend. According to table 2, this upturn is not statistically significant, 95% CI (-1.016, 5.529). I propose to add "not statistically significant" in the sentence.

2. Page 8, line 252. In the Discussion section, the authors cite reference number 17, which studied the benefit of screening in terms of mortality reduction and years of life saved. But, this reference did not provide any information on overdiagnosis and/or overtreatment. Maybe the authors wanted to cite another work of the same research group.

3 Page 8, lines 254-55. Are the figures 2.8 and 4.6 percentages? If not, what are the units?

Discretionary revisions
1. I suggest to divide the Discussion in subsections, for example "Principal findings", "Age, period and cohort effects", "Common risk factors", "Life styles", etc. That would make the Discussion more structured.

2. I think that some sentences need minor English or typographical corrections. For example:
   Page 5, line 161: ...using *the* negative binomial distribution.
   Page 5, line 168: ...2) the *segments* slope.
Page 10, 320, *while 5-year*, 340 with USA and *Canda*.

Page 12: since the levels of circulating oestrogens are known to *change modifications (need some word to be clearer)* in diet.

**Level of interest:** An article whose findings are important to those with closely related research interests

**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