Reviewer's report


Version: 1 Date: 8 June 2005

Reviewer: Esteve Fernandez

Reviewer's report:

General
This paper is aimed at analyzing the trends in overall cancer mortality in Ohio during the period 1970-2001. The topic is not original but of importance at the local (in this case, the State of Ohio) level, and can be of interest for readers of other places.

Major Compulsory Revisions (that the author must respond to before a decision on publication can be reached)

Abstract:
1) the conclusions (abstract and end of the Discussion section) are not derived from the data presented. This is a descriptive study, and potential explanations accounting for the trends observed are expected, but not the type of conclusions now present. They are not derived from the data and are already known actions that can be proposed without the need of the descriptive study presented.

Methods:
2) please explain whether the number of joinpoints (or changepoints) were fixed a priori in the modelling or not.
3) please indicate the software used (and the URL if freely available)

Results:
4) The specific cancer results can be improved. Since changes in the trends have occurred between 1970 and 2001, it will be helpful to have in Table 2 the ASMR for the first quinquenium (1970-1974) of the study period, and also to show the different trends for each cancer site (showing the APC for the different periods defined by the joinpoint regression) (please see an example of results presented in this way in Fernandez et al. Eur J Cancer. 2001 Nov;37(17):2222-8).

5) Figure 2: it is not possible to distinguish between observed and fitted values. An optimal strategy is to draw the observed values WITHOUT line joining the dots (squares and circles) and draw the fitted values as a simple line, without marking the values. Since the fitted values are segments of lines, they are clearly distinguished from the observed values (the paper already mentioned have figures using this approach).

Discussion:
6) The first 3 paragraphs are adding nothing to the paper (they are in fact justification of the investigation conducted), and hence they can be deleted.
Please follow the structure:
- start with a first paragraph to briefly present the main finding (current 7th paragraph could be moved)
- discuss (in 2 or 3 paragraphs) the main findings in relation to previous research, and interpret or
discuss the meaning of the main results
- discuss the limitations and strengths of the study (are there changes in ICD codification (ie, from ICD-8 to ICD-9 and later to ICD-10) that merit attention?; is similarly reliable death certificate information for black and whites?)
- finish with a conclusive paragraph (conclusions derived from the data presented)

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Minor Essential Revisions (such as missing labels on figures, or the wrong use of a term, which the author can be trusted to correct)

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Discretionary Revisions (which the author can choose to ignore)

What next?: Unable to decide on acceptance or rejection until the authors have responded to the major compulsory revisions

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

Quality of written English: Acceptable

Statistical review: No

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