Author's response to reviews

Title: Time trends in breast cancer incidence and mortality in a middle-sized northeastern Brazilian city

Authors:

Carlos A Lima (limaca@infnet.com.br)
Margareth R Rangel (mrrangel@uol.com.br)
Matheus Macedo-Lima (math.biomatter@gmail.com)
Angela M Silva (angelmar@infonet.com.br)

Version: 3 Date: 14 July 2012

Author's response to reviews:

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Title: Time trends in breast cancer incidence and mortality in a middle-sized northeastern Brazilian city

Authors:

Carlos Anselmo Lima (limaca@infonet.com.br)
Margareth Rose Uchoa Rangel (mrrangel@uol.com.br)
Matheus Macedo-Lima (math.biomatter@gmail.com)
Angela Maria da Silva (angelmar@infonet.com.br)

Version: 3 Date: February 14, 2012

Author's response to reviews:

Reviewer's report

Title: Time trends in breast cancer incidence and mortality in a middle-sized northeastern Brazilian city

Version: 1 Date: 13 March 2012

Reviewer: Robin J Bell
Reviewer's report:

Major compulsory revisions:

The English expression in this manuscript is poor. It needs extensive editing for grammatical errors.

- The manuscript was revised for grammatical errors.

This paper is reporting that in an area in the North East of Brazil, there has been an increase in the age-standardised incidence and mortality from breast cancer. The data in table 1 includes annual data for both incidence and mortality presented both in a crude and age-adjusted fashion. There is clearly substantial variation from one year to the next as the absolute numbers of cases involved are not large. The age-adjusted estimates in this table would be better presented with confidence intervals so that the uncertainty around the point estimates can be appreciated.

- The rates in table 1 were presented with confidence intervals.

Then a joinpoint analysis has been carried out. The only annual percentage change from this analysis where the 95% confidence interval does not include zero is the one for annual percentage change in age adjusted incidence, both overall and for the age group 50-64. The text reads as if the result for mortality in this age group is also increasing, however the confidence interval around the estimate for mortality is wide and includes zero.

- Corrections were made following the observation.

The potential influence of screening on the trend seen in incidence for women
aged 50-65 is mentioned in the first paragraph of the Discussion along with other potential influences such as a decrease in the use of HRT. However the issue of screening practices in this community is pivotal. It is essential that information about prevalence of use of screening and whether there is an invitation to screening in any age group (particularly women aged 50-64) is included in the manuscript so that the observation about the upward trend in incidence in women aged 50-65 can be interpreted.

- Discussion about the use of HRT and screening in the community studied was included.

The English expression in the first sentence of the Discussion is poor and again the implication is that there is evidence of increasing mortality in women aged 50-64 years which is not consistent with the data in Table 2.

- It was changed.

The figure legend refers to prostate cancer when it should refer to breast cancer.

- It was changed.

Level of interest: An article of limited interest

Quality of written English: Not suitable for publication unless extensively edited

Statistical review: Yes, but I do not feel adequately qualified to assess the statistics.

Declaration of competing interests:

I declare that I have no competing interests

Reviewer’s report
Major Compulsory Revisions

1) Authors should discuss more thoroughly reasons why there was increasing trend in mortality only in middle age-group. Could it be due to registration changes or other changes in health care? Are there special reasons for fluctuation present in Figure 1? Has there been changes in how cause of death has been determined. Is there any quality control reports (published or unpublished) about causes of death and/or cancer diagnosis?

- The authors included in the discussion what they think could be the reason for the increased incidence in peri and postmenopausal women (now following new age-groups: ,45, 45-54, 55-64, and 65+); no special reason for the fluctuation of data could be found; quality control was determined by the Brazilian National Cancer Institute and made part of the publication "Estimativa 2012: Incidência de Câncer no Brasil", and can be downloaded at http://www.inca.gov.br/estimativa/2012/estimativa20122111.pdf.

2) If this data are meant to present in general similar areas in Brazil and/or the whole world, confidence intervals at least for Figure 1 are needed.

- These were provided

3) My opinion is that observing "linear trend" using joinpoint does not mean that change is linear. It means that there is linear component in change.

- Ok.
Minor Essential Revisions

1) Figure 1 caption start with "Prostate cancer...". Correct caption and/or figure should be submitted
- It was corrected.

2) Figure 1. Replace decimal commas ",," with "." points. Use line types that works also in black and white prints.
- It was corrected.

Discretionary Revisions

- The authors thank for the reviewer's opinion and should consider this approach for future research and decided to maintain the current approach because, as stated by Philip S. Rosenberg and William F. Anderson in Age-Period-Cohort Models in Cancer Surveillance Research: Ready for Prime Time?, Cancer Epidemiol Biomarkers Prev. 2011 July; 20(7): 1263–1268, "the APC model provides a useful evolutionary extension to the standard armamentarium of methods available to the descriptive epidemiologist". but "the APC model is not a replacement for existing methods, which are popular and successful".

Level of interest: An article of limited interest

Quality of written English: Acceptable

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

Reviewer's report

Title: Time trends in breast cancer incidence and mortality in a middle-sized
northeastern Brazilian city

Version: 1 Date: 2 April 2012

Reviewer: Ettore Bidoli

Reviewer’s report:


Major Revisions:

Follow exclusively your results in the discussion section.

Improve English.

- Discussion was edited to follow exclusively the results.

In introduction section: Verify if breast cancer is really the first cause of death globally.

- It was changed to read that breast cancer was the first cause of cancer-related death globally.

In materials and methods section: Explain why you chose the <50, 50-64, 65+ age groups.

- Following the reviewers’ observation a decision was made to change the age-group intervals for <45, 45-54, 55-64, and 65+ to be an approximation to the premenstrual, perimenstrual, and postmenstrual periods of women's lives.

In results section: Specify that 50-64 age group mortality trend is not statistically significant.

- A new regrouping was done and that was changed.

The figure is not clear: explain that rates are /100.000, and explain the meaning
of ICR, IASR, MCR, and MASR as reported in results.

- It was corrected following the new edition.

Minor Revisions:

In abstract section:
re-write sentences in background “As for mortality, rates are often higher in low income regions”, and in methods “are trends were obtained using the Joinpoint Regression Model”.

- That was edited.

In conclusions specify that mortality trend in 50-64 age group is not statistically significant.

- It was changed in the new edition.

In introduction section:
“including in situ and non-melanoma skin cancer” can be omitted in the corresponding sentence.

- That was done.

In results section:
Verify the percentages: 36.2+33.9+29.6 <> 100.

- That was edited.

Report APCs and corresponding 95%CI.

- That was done.

In Discussion section:
Give a citation related to the sentence “Age-standardized breast cancer incidence rates of 66.4/100.000 are observed in middle income areas and 27.3/100.000 in low income areas.

- That was edited.

Change 60/100.000 to 60.8/100.000

- That was edited.

Specify that 49.6/100.000 and 60.8/100.000 are ASRs.

- Done.

In table 1 verify mortality/1996: 8+6+6 <> 21

- Done.

In table 2 report everywhere that CI are 95%CI

- Done.

The figure is not clear: explain that rates are /100.000, and explain the meaning of ICR, IASR, MCR, and MASR as reported in results.

- That was corrected in the new edition of the figure.

Level of interest: An article of limited interest

Quality of written English: Needs some language corrections before being published

- The manuscript was edited for grammatical errors.

Statistical review: No, the manuscript does not need to be seen by a statistician.
Declaration of competing interests:
'I declare that I have no competing interests'

Reviewer's report
Title: Time trends in breast cancer incidence and mortality in a middle-sized northeastern Brazilian city
Version: 1 Date: 11 May 2012
Reviewer: Dejian Lai

Reviewer's report:
The manuscript used descriptive statistics to present breast cancer incidence in a Brazilian state. The manuscript stated that Jointpoint Regression Model was used to fit the data. However, Figure 1 seems not a product of the package. Is Figure 1 a direct connection of points using straight line from Excel? The legend of the figure is not well prepared. There is no caption for the figure either.

- The figure was edited and the new one is a product of the package.

The main table (Table 2) indicated that number of jointpoints = 0. Was it due to the fact that there is no need to use Jointpoint Regression Model?

I would suggest that the authors should investigate/understanding what the actual model is in Jointpoint Regression Model before its applications.

- The manuscript was edited and rates were presented with confidence intervals (table 1). For the number of joinpoints= 0, it was understood that there was a linear component in the change.

Level of interest: An article of limited interest

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'