Peer Review Report

Review Report on Temporal trends in incidence and mortality of major reproductive-related cancers in women in Guangzhou, 2010–2020: a joinpoint and age–period–cohort study
Original Article, Int J Public Health

EVALUATION

Q 1   Please summarize the main findings of the study.

The authors of this study investigated the temporal trends in mortality and morbidity of four main female cancers including breast, cervical, uterine, and ovarian cancers in Guangzhou, China using the Guangzhou cancer and Death Registry database and by robust statistical methods of joinpoint regression and age–period–cohort model. The authors were successful in showing the age-standardized temporal trends of these cancers in the mentioned area for the 2010–2020 period by an increasing mortality rates and decreasing both morbidity and mortality rates with advancing birth cohorts. The findings of this study could be beneficial regarding the population-wide cancer screening programs and policy implication to enhance the health of women both in this region and all over the country.

Q 2   Please highlight the limitations and strengths.

The main limitation of this study is the limited study population to just one city and the results could be hardly generalized to all over the country. Also, the limited span of study to one decade in the other limitation of this study. The limited epidemiologic measures of only mortality and incidence in this study is the other major limitation while important measures like disability-adjusted life years and its two subsets of YLLs and YLDs are missing. The main strengths of this study are the robust methodology and statistical methods used to assess the data and generate the results. Also, highlighting the trend of measures for a period of ten years is the other strength of this study.

Q 3   Please provide your detailed review report to the authors. The editors prefer to receive your review structured in major and minor comments. Please consider in your review the methods (statistical methods valid and correctly applied (e.g. sample size, choice of test), is the study replicable based on the method description?), results, data interpretation and references. If there are any objective errors, or if the conclusions are not supported, you should detail your concerns.

Major comments:
1. General and title, line 1: the used term of "morbidity" in the title and through the text of this manuscript is a vague term here and since the authors investigated the epidemiologic measure of "incidence" it is highly suggest they replace the term with incidence, since morbidity may refer to other measures like prevalence, too.
2. General: many grammatical and language errors exist in the manuscript. A revision in this regard is necessary. Using the past tense in methods and results sections is highly suggested.
3. Abstract, conclusions lines 20–22: it is not clear the provided conclusion is based on the results of AAPC trend for cancers or the APC model. It seems the conclusion is mainly based on the results of the APC model since it is categorized by age and birth cohorts. While the AAPC values are age-standardized and providing the trends by age (line 20) is not scientifically appropriate. A revision to make this part clear is essential.
4. Introduction lines 50–27: separating this part as a paragraph might be beneficial since the message is apart from the preceding sentences.
5. Introduction line 65: mention the effects of age-period-cohort factors on the epidemiologic measures of morbidity and mortality as "risks" might not be epidemiologically and statistically appropriate and scientific.

6. Introduction line 56 and Methods line 75: the use of term "gender" should be made cautiously and not interchangeably with the term "sex". If the database has only data on men and women, then it is stratified by sex and not gender and also the data collection methods might clear this. Therefore, it is highly suggested to rethink on this very important issue and if necessary, make the changes to the text.

7. Methods line 77: the same as the first title, replacing the morbidity with incidence would be more informative and appropriate. Also, adding about the methods of calculating incidence rates would be clarifying since numerous methods exist to generate incidence values.

8. Methods line 81: the authors may provide the filled GATHER checklist as a supplementary to this submission to make the points clear for readers.

9. Methods lines 85-87: the name of included cancers with corresponding ICD-10 codes should be provided here. Also, the authors may clarify about the metastatic cancers diagnosed for the first time. Were they excluded from study? Besides, what was the reason for choosing age 20 as a cut-off for reporting the results in this study?

10. Methods, line 94: What was the limit for 5-years age groups?

11. Results: reorganizing this section based on four investigated causes of cancers might be more informative and make understanding the provided numbers and results easier for readers.

12. Results line 187: mentioning the values of the assessed log-linear model on the impact of each age-period-cohort subsets on the cancers' incidence and mortality trends as "risk factors" of these measures seem to be inappropriate and revising the text is highly suggested.

13. Table 2: adding the details of broken periods for trends of some cancers as shown in this table, to the methods section is essential.

14. Discussion lines 221-224: since there are many studies from China in literature, I do suggest expanding this section on comparing the results of this study with previous investigations in national and subnational scales to benefit the readers.

15. Discussion lines 2336-238: the provided justification for increased mortality rates should be expanded and also backed up by references since it is a major point of this study.

16. Limitation line 296: this section needs to be expanded on the several limitations of this study as mentioned in this review and also the efforts of authors made to cover these limitations and adding about the strengths of study.

Minor comments:
1. Lines 30-31: "in China" is double mentioned.
2. Line 94 and 104: writing numbers less than 10 in alphabetics would be better.
3. Lines 242-243: please mention the full term in the first use.

PLEASE COMMENT

Q 4   Is the title appropriate, concise, attractive?

Yes. Although one comment was provided on changing the word morbidity with incidence for a clearer presentation of the study title and the investigated notion.

Q 5   Are the keywords appropriate?

Yes

Q 6   Is the English language of sufficient quality?

No, the manuscript needs major language and grammar edits.

Q 7   Is the quality of the figures and tables satisfactory?

Yes.

Q 8 Does the reference list cover the relevant literature adequately and in an unbiased manner?)

Yes.

QUALITY ASSESSMENT

Q 9 Originality

Q 10 Rigor

Q 11 Significance to the field

Q 12 Interest to a general audience

Q 13 Quality of the writing

Q 14 Overall scientific quality of the study

REVISION LEVEL

Q 15 Please make a recommendation based on your comments:

Major revisions.