Reviewer’s report

Title: Estimation of the adolescent pregnancy rate in Thailand 2008-2013: An application of capture-recapture method

Version: 0 Date: 05 Feb 2019

Reviewer: Reviewer 2

Reviewer's report:

PEER REVIEWER ASSESSMENTS:

OBJECTIVE - Full research articles: is there a clear objective that addresses a testable research question(s) (brief or other article types: is there a clear objective)?

Yes - there is a clear objective

DESIGN - Is the current approach (including controls and analysis protocols) appropriate for the objective?

No - there are major issues

EXECUTION - Are the experiments and analyses performed with technical rigor to allow confidence in the results?

Not sure - key details are missing from the manuscript

Statistics - Is the use of statistics in the manuscript appropriate?

No - there are issues with the statistics in the study

INTERPRETATION - Is the current interpretation/discussion of the results reasonable and not overstated?

No - there are major issues

OVERALL MANUSCRIPT POTENTIAL - Is the current version of this work technically sound? If not, can revisions be made to make the work technically sound?

Maybe - with major revisions
GENERAL COMMENTS: This is an interesting and important methodologic study that seeks to improve estimation of adolescent pregnancy rates in Thailand. The authors have augmented nationally available data sources with a national cross-sectional study. Additional information on the CRC methodology implementation and discussion of potential weaknesses in data inputs (specifically miscarriage and abortion) would strengthen this analysis.

REQUESTED REVISIONS:

The manuscript states that miscarriage, abortion and stillbirth are major sources of under-reporting of adolescent pregnancy rates. This approach only seeks to incorporate estimates of stillbirths. No information on the prevalence of miscarriage or induced abortion is provided. While these events may not be documented in Thailand, additional data inputs may improve estimates, e.g. gestational-age specific rates of pregnancy loss from standard populations, and estimates of hospitalization or health care utilization due to post-abortion or post-pregnancy loss complications.

The authors state that there is a decreasing trend in adolescent pregnancy rates, but not test of trend is presented.

Were multiple gestations with mixed birth outcomes (live birth plus stillbirth) counted as a single pregnancy?

The manuscript would be improved by the incorporation of a sensitivity analysis to describe the specific impact of Source 3 on estimates.

The supplementary Venn diagram would have greater impact if the circles were proportional to sample size.

The manuscript does not describe the potential bias resulting from incomplete hospital coverage specific to Source 2.

ADDITIONAL REQUESTS/SUGGESTIONS:

The manuscript needs a thorough review for language. There are a number of places where grammatical errors impact understandability. For example, on page 4, lines 2-3, the subject of the second portion of the sentence is unclear.

Note: This reviewer report can be downloaded - see attached pdf file.
Are the methods appropriate and well described?
If not, please specify what is required in your comments to the authors.

No

Does the work include the necessary controls?
If not, please specify which controls are required in your comments to the authors.

No

Are the conclusions drawn adequately supported by the data shown?
If not, please explain in your comments to the authors.

No

Are you able to assess any statistics in the manuscript or would you recommend an additional statistical review?
If an additional statistical review is recommended, please specify what aspects require further assessment in your comments to the editors.

I am able to assess the statistics

Quality of written English
Please indicate the quality of language in the manuscript:

Needs some language corrections before being published

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