Reviewer’s report

Title: Associations of ambient air pollutants with regional pulmonary tuberculosis incidence in the central Chinese province of Hubei: a Bayesian spatial-temporal analysis

Version: 0 Date: 10 Dec 2019

Reviewer: Maquines Sewe

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Impact of air pollution on regional pulmonary tuberculosis incidence in the central Chinese province of Hubei: a Bayesian spatial-temporal analysis

Comments

The paper is interesting drawing interesting relationship between air pollution and TB incidence. The methods are appropriate for the spatio-temporal nature of the study. However, I have the following comments and suggestions.

* The title should read association instead on 'impact'. I presume assessing impact is different. This should be reflected as well in many of the paragraphs where 'impact' is used.

* It appears that the authors had access to individual level data with date of TB diagnosis? In addition, the air pollution data is available on a daily scale. Based on this,

  o Could the authors aggregate the data to weekly/monthly scale (or potentially request the data from CDC) and re run the analysis. In this case the authors can tease out temporal relationship between the pollutants and TB incidence by looking at various lags.

  o The current study does not tell you how much lag elapses before you see increase in TB diagnosed cases for the various pollutants.

  o A lag response relationship would be interesting to see with potential to include non-linear effects. In the current analysis, authors assume linear effects.

  o This may be useful in an early warning system

* The article could greatly benefit from extensive English review

Level of interest
Please indicate how interesting you found the manuscript:

An article of importance in its field

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

Not suitable for publication unless extensively edited

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