

Peer Review Report

Review Report on Indoor solid fuel use and non-neoplastic digestive system diseases: A population-based cohort study among Chinese middle-aged and older population

Original Article, Int J Public Health

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EVALUATION

Q 1 Please summarize the main findings of the study.

Link of air pollution and non-neoplastic digestive system diseases is still not clear. In this regard this study very relevant and reported one of few evidences of such association. The study was conducted using three rounds of national survey. The data is very rich, but only concern is convenient selection from the main study. This requires some further analysis as suggested below.

Q 2 Please highlight the limitations and strengths.

The data obtained from three rounds of national survey is major strength of the study. But lack actual air pollution measurement both indoor and outdoor is major limitation of the 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.

Link of air pollution and non-neoplastic digestive system diseases is still not clear. One way, we need to collect evidence and other way we must explore potential causal pathways. In this regard this study is very important one as evidence is very sparse and it is with very rich data. I recommend for publication if author agree to address the following

1. It is confusing, considering different sample size for base line and final analysis. I would recommend a single number for entire analysis, could be 2962. Secondly, compare the baseline characteristics of 2962 sample with baseline characteristics of entire study sample as analytical sample is not randomly selected from the main study. There is a possibility of bias due to this selection. If characteristics are like main study, authors can claim representativeness of the sample for generalization or statistical inference.
2. Is there any possible reason for using cooking and heating fuel separately? If type of fuel used for cooking and heating are similar, I will recommend to consider one exposure, that fuel used for heating and cooking. Estimate the stratified impact at different fuel combination of these two uses.
3. Comorbidities are not confounder at all, they should be treated as effects modifiers. Do not control them, rather estimate the risk with this comorbidities one at a time (Authors did for few) and then define another variable for multi co-morbidities/# of comorbidities and repeat the same stratified analysis.
4. The important question is about the causal pathways. As authors stated the primary impact air pollution is through lung inflammation, oxidative stress and infiltration of toxic into organ through circulatory pathways, It is important to assess the mediation of this effects by morbidities related to respiratory illness or even existing NCDs related to air pollution.
5. In age of continuous exposure response, considering qualitative indicator of air pollution is dated. Is there any possibility of reporting difference in exposure gradient between cleaned and biomass fuel in the same population by available literature?
6. How about ambient air pollution at that region? It could be one of the important confounders. How do authors address this issue? Is there any possibility of ambient exposure for them?

PLEASE COMMENT

Q 4 Is the title appropriate, concise, attractive?

Yes

Q 5 Are the keywords appropriate?

Yes

Q 6 Is the English language of sufficient quality?

Yes

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.