Reviewer’s report

Title: Desert dust outbreaks and respiratory morbidity in Athens, Greece.

Version: 1 Date: 10 May 2017

Reviewer: Massimo Stafoggia

Reviewer's report:

I appreciate the efforts undertaken by the authors to address all my major concerns. I am fine with the answers. There are only a couple of doubts, which the authors might decide to address or not.

First, I am not fully sure that the case-control matching cannot be retained in the analysis. Since matching has been done individually based on predefined characteristics, authors should still be able to account for it. In other words, they might be able to define categorical variables identifying the pairs (or triples) of days with same covariates but different dust indicator, and condition on them by use of conditional Poisson regression. In this way, the contrast of analysis would be entirely within group, and adjustment for those characteristics would be achieved by design. I would suggest the authors to at least consider this possibility, and motivate a negative response if they believe it is wrong.

Second, it is a pity that the authors could not specify a priori a longer series of data (up to more recent years). In this way, being the study conducted in only one city and over a 10-year old period, its interest is somewhat reduced.

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

An article of limited interest

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

Acceptable

Declaration of competing interests
Please complete a declaration of competing interests, considering the following questions:

1. Have you in the past five years received reimbursements, fees, funding, or salary from an organisation that may in any way gain or lose financially from the publication of this manuscript, either now or in the future?
2. Do you hold any stocks or shares in an organisation that may in any way gain or lose financially from the publication of this manuscript, either now or in the future?

3. Do you hold or are you currently applying for any patents relating to the content of the manuscript?

4. Have you received reimbursements, fees, funding, or salary from an organization that holds or has applied for patents relating to the content of the manuscript?

5. Do you have any other financial competing interests?

6. Do you have any non-financial competing interests in relation to this paper?

If you can answer no to all of the above, write 'I declare that I have no competing interests' below. If your reply is yes to any, please give details below.

I declare that I have no competing interests

I agree to the open peer review policy of the journal. I understand that my name will be included on my report to the authors and, if the manuscript is accepted for publication, my named report including any attachments I upload will be posted on the website along with the authors' responses. I agree for my report to be made available under an Open Access Creative Commons CC-BY license (http://creativecommons.org/licenses/by/4.0/). I understand that any comments which I do not wish to be included in my named report can be included as confidential comments to the editors, which will not be published.

I agree to the open peer review policy of the journal