Reviewer’s report

Title: A Global Perspective on Coal-fired Power Plants and Burden of Lung Cancer

Version: 2 Date: 02 Jan 2019

Reviewer: Stefano Parodi

Reviewer's report:

The revised version of the manuscript entitled "A Global Perspective on Coal-fired Power Plants and Burden of Lung Cancer" has further improved and in my opinion it is now acceptable for publication in Environmental Health.

I just suggest that the Authors provide some very minor changes without the need of any further revision:

1) Abstract (page 2, row 20): "we estimate a total of 1.37 (range=1.34 ~1.40) million standardized incident cases from lung cancer were associated with coal-fired power plants in 2025".
   Referring to a forecast measure, "were associated" should be replaced with "will be associated".


3) Results (page 8, row 17): "note that these summaries are averaged over countries and time; obtained from empirical data without any distribution assumptions"

   This sentence should be moved to the Data Analysis section.

   I am not completely convinced that percentiles selected from a distribution from a set of observed values (especially from different populations) can adequately fit the definition of confidence interval. However, I don't want to insist on quibbles that do not affect the interpretation of the interesting results of the study.

4) Results (page 9, row 20): "Univariate, behavior-environmental […] models were applied".
   "Univariable model" should be preferred to "univariate model" when referred to a regression analysis.

5) Results (page 10, row 20): "340,592~354539" should be changed to "340,592~354,539"
6) Study Limitations (page 13, row 1): "Despite using an ecological study design, a strong impact of ecologic bias is unlikely because our analysis on aggregated data is meant to infer policy decisions at the national level".

In my opinion ecological fallacy is independent from the future application of the study results. I suggest the Authors rephrase the sentence as follows:

"Despite using an ecological study design, biological plausibility of our results, the lack of any association in the falsification analysis, and the consistence of our estimates with those from previous investigations indicate that a strong impact of ecologic bias is very unlikely. Moreover, our analysis on aggregated data is meant to infer policy decisions at the national level …"

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