

Reviewer's report

Title: A Review of the Epidemiologic Evidence of High Ambient Temperature and Mortality Accounting for Air Pollutants and Identifying Vulnerable Subgroups

Version: 2 **Date:** 1 April 2009

Reviewer: Antonella Zanobetti

Reviewer's report:

The paper is a complete review of the literature on the effect of temperature on mortality.

The manuscript is well written, clear and concise.

One issue I have is that by looking at the tables it is not really possible to compare the results across studies. I understand that this is not easy due to the difference of expressing the results, but maybe some changes in the tables could be helpful.

Minor Essential Revisions

Page 5 lines 15-18: I think that what is called the "underlying cause of death" is the main cause of death, and therefore the immediate cause. There is no immediate cause of death in the death certificates.

Page 6 lines 8-10: I understand the meaning but the phrase need to be edited to be more clear.

Page 7 lines 19-20 the phrase is not clear. Mainly at line 20: lower values those effect...?

Page 8 line 6: humidity levels. "Levels" is repeated from line 6 and can be deleted.

Page 8: there is no reference for the Korea study.

page 11 lines 21-23: if there is harvesting then this would suggest that exposure influence mainly frail persons, but if there is no harvesting then it means that exposure is a real public health issue. It is not clear the phrase that ends with "several years".

Tables: by looking at the tables it is hard to compare the results across studies. For example the column results in the three tables is long and not clear, may be the outcome and method columns could be combined and the results could be divided in two columns or summarized better. For some references no risk is given.

Across all the tables the method is always listed as time-series or case-crossover, only in Table 1 in the third reference the confounders are listed.

Is there a reason for this? I would suggest deleting that description.

Again in Table 1 ref 54, the method column is not clear: comparisons of counts to 2002? Moreover in the method the author write that studies who reported excess deaths were excluded, why is this study not in that category?

Discretionary Revisions

Instead of harvesting, maybe mortality displacement could be more appropriate.

Page 4 line 9: 'mortality counts' this is not clear, time series are mortality counts, but the author does include time series studies.

Page 12 lines 10-12: maybe the effect in Delhi and Sao Paolo compared to London was also different due to different temperature pattern in the cities.

Level of interest: An article of importance in its field

Quality of written English: Needs some language corrections before being published

Statistical review: No, the manuscript does not need to be seen by a statistician.

Declaration of competing interests:

I declare that I have no competing interests