Reviewer’s report

Title: Modifiers of Short-term Effects of Ozone on Mortality in Eastern Massachusetts -- A case-crossover analysis at individual level

Version: 1 Date: 1 September 2009

Reviewer: Victor H Borja-Aburto

Reviewer’s report:

This is a straightforward manuscript clearly written that examined the association between ambient ozone exposure and mortality. This manuscript adds to this previously reported association by assessing effect modification by SES measured at the census tract.

Discretionary Revisions

In the introduction section the authors state: “Consequently, we have the ability to model potential effects modifiers and examined the significance of the modification, simultaneously.” Please expand the significance of this statement.

The description of the model to assess effect modification should be expanded in order to show the reader how variables selected as modifiers were evaluated, especially how SES variables with three categories were tested.

The first paragraph in the discussion section is unfinished

The second paragraph of the discussion section indicates that the identification of a set of more susceptible individuals may suggest possible physiological mechanisms. However this could also indicate other non biological factors such as health care access issues.

I would suggest a broader discussion about the apparent stronger effect for diabetes and stroke than for respiratory and cardiovascular causes.

Level of interest: An article of importance in its field

Quality of written English: Acceptable

Statistical review: Yes, and I have assessed the statistics in my report.

Declaration of competing interests:

I declare that I have no competing interests