Reviewer’s report

Title: Pattern and determinants of hospitalization during heat waves: an ecologic study

Version: 1 Date: 16 February 2007

Reviewer: Michael McGeehin

Reviewer’s report:

General
The paper reports on the investigation of morbidity, as shown by hospital admissions, associated with heat waves in Veneto, Italy during 2002 and 2003. Mortality has been a well studied outcome from heat waves, however morbidity has only been reported by a few researchers. The authors show a significant association between heat wave duration (4 or more hot days) and admissions for heat disease (HD) and respiratory disease (RD).

This paper has policy and planning implications for cities at risk for heat waves. Assessing the increased burden on health care delivery systems from heat waves is an important aspect in preparedness planning.

Major Compulsory Revisions (that the author must respond to before a decision on publication can be reached)

The conclusion section of both the abstract and of the paper needs to be strengthened. The second of only two sentences in the abstract Conclusion states that adaptations to extreme temperatures in late summer are unlikely. That statement is much too broad for a single study of a single late summer heat wave. If the authors want to make a statement about the possible adaptations in late-summer heat waves, they need to make it with caveats that it is based on this study’s findings. The same cautions about generalizations from a single study should be applied to the paper’s Conclusion section. There also should be some mention of what effect these findings may have on preparedness planning for heat waves for city governments.

In the Discussion section, the author’s state that no relationship was found between heat wave characteristics and cardiovascular disease. This is the first that this “lack of finding” was mentioned. Cardiovascular disease is often considered a major co-factor in deaths during heat waves and as a cause of increased morbidity. The cardiovascular disease finding was never mentioned or displayed in the Results section of the paper. The result should be given in the Results section (perhaps a discussion of how it was modeled) and discussed more thoroughly in the Discussion or Conclusions sections.

Minor Essential Revisions (such as missing labels on figures, or the wrong use of a term, which the author can be trusted to correct)

Discretionary Revisions (which the author can choose to ignore)

What next?: Unable to decide on acceptance or rejection until the authors have responded to the major compulsory revisions

Level of interest: An article of importance in its field

Quality of written English: Acceptable

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

Declaration of competing interests:

I have no competing interests.