Reviewer's report

Title: Geographic variability of road traffic accidents in Spain during the period 2002-2004: an ecological study

Version: 1 Date: 5 April 2007

Reviewer: Marie Hasselberg

Reviewer's report:

General

----------------------------------------------------------------------

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

This is an interesting paper, looking at a relevant issue – geographic variability of road traffic accidents in Spain. Nevertheless, some aspects need further improvement in order to allow a more consistent presentation of the work done. The paper is easy to follow however the language can be improved in some parts of the manuscript.

The fact that the study focus on fatal RTI:s should be highlighted in the title of the paper.

The term road traffic accident is used throughout the text, but since it is an ongoing academic discussion if and how to use the term accident it may be better to consistently use road traffic injury (RTI).

The reader would benefit from a more detailed interpretation of the results. The differences regarding alcohol consumption, heavy vehicles etc. between the provinces are of interest instead of just writing the mean proportion (Second paragraph Under the Result section). The text regarding Table 2 and 3 could also be elaborated.

The limitation of ecologic fallacy is discussed, but apart from that no other limitations are mentioned e.g. other ecological variables that could have influenced or mediated the results (traffic density, speed limits etc.).

The authors explain the inverse relationship between educational level and RTI:s by a higher use of safety belt among groups with higher education. The association between socioeconomic position and RTI:s have been shown in a number of studies (both on an individual and contextual level). The explanations of this relationship have also been discussed in the public health literature including other explanations than safe behaviour, such as exposure to risky environments, type of vehicle used, accessibility and affordability of safety equipment etc.

----------------------------------------------------------------------

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

The title of Table 1 should be extended so the content of the Table become clear.

----------------------------------------------------------------------

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 whose findings are important to those with closely related research interests
**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