Reviewer’s report

Title: Effect of degree of urbanisation on age and sex-specific asthma prevalence in Swedish preschool children

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Reviewer: David Mannino

Reviewer’s report:

The authors attempt to determine asthma prevalence and risk factors in a Swedish preschool population. They find, predictably, a higher prevalence among boys, and also find an interesting relation to age, urbanization, latitude, and other factors.

Major Compulsory revisions:

1. This paper is difficult to evaluate. The main problem is that the sample is not at all random, in that 1/3 of the day care centers catered to allergic or asthmatic children. I'm not convinced that limiting the analysis to the other day care centers (which were matched)-- fixes this. Another important problem is that asthma diagnosis in very young children is questionable, at best.

The non random nature of the sample make me question these findings (although the male predominance is reassuring)

2. It is difficult to assess the regression models without better understanding how the data are distributed. Perhaps a map with dots indicating the various sites (along with the sizes of the cities) would be useful.

3. The study is also plagued by small numbers, particularly in some of the subgroups. Can these be combined? (i.e - i the age 1 group it appears 1 girl and 10 boys had asthma).

4. Confidence intervals needed on the graphics (particularly on the urbanicity one)

Level of interest: An article of limited interest

Quality of written English: Acceptable

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'