Author's response to reviews

Title: Ecological study on socio-economic indicators and prevalence of asthma among schoolchildren in urban Brazil

Authors:

Sergio S da Cunha (cunhass@ufba.br)
Mar R Pujades (mar.pujades@epicentre.msf.org)
Mauricio L Barreto (mauricio@ufba.br)
Bernd Genser (bernd.genser@bgstats.com)
Laura C Rodrigues (laura.rodrigues@lshtm.ac.uk)

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Author's response to reviews: see over
To
Anita Makri MA, MPH
Assistant Editor
BMC-series Journals

Dear Anita Makri,

Re: "Ecological study of socio-economic indicators and prevalence of asthma in schoolchildren in urban Brazil", manuscript ID 1826267026125267)

Thank you very much for your email dated on 31 May 2007 and comments of the reviewers. My colleagues and I appreciated the comments. Please find enclosed documents: a copy of the revised manuscript, and our actions and response to the comments by the referees.

Yours sincerely,
Laura Rodrigues

The first review.

Justification for the use of correlation. In our study, we used correlation to select the variables that would be included in the linear model and not as a measure of effect. We fully agree with the reviewer’s comment that using correlation analysis in ecological studies could be misleading. To highlight this issue we have revised our references, and now we have decided to delete the results based on correlation analyses and replaced them by results based on linear regression models, showing in Table 2 (as suggested by the
reviewer) the change in unit of the explanatory variables in relation to changes in asthma prevalence (in percent points).

**The second reviewer**

1- The reviewer suggested incorporating the article by Stewart et al [1], we have already done, it is the discussion, 4th paragraph, page 8.

2- Why the second survey in the city Recife was not included. Of the two surveys on asthma conducted in the city of Recife, we have used results from the first survey only in our study. We argue that, despite the fact that the ISAAC questionnaire has been used in both surveys, in the second one [2] the question on wheezing was changed to include the term “cansaço” (shortness of breath). Our group has previously discussed this issue pointing out that surveys using questions with this term would not necessarily be comparable to others where the standardised ISAAC questionnaire were applied (because of their different specificity in identifying asthma) [3]. This has been mentioned in the paper:

“...change of the question on wheezing in the questionnaire, as it has been argued that results might not be comparable with those from other surveys.” (first paragraph in Results).

3- On the question on “has ever asthma?” The review made the comment “...Although some of these centres have modified the ISAAC’s standard written questionnaire (question #6: has ever had asthma?) this might not interfere with the study”.

It is not clear to us whether the reviewer is suggesting to also include data regarding question mentioned above (#6) in our study. We argue that the term “asthma” may imply not only the presence of the disease (reported symptoms) but also a diagnosis made by a physician. The observed rates of asthma in surveys using this term may thus be influenced by the extent of access to health services and appropriate diagnosis and not only to asthma prevalence. That is why we had decided beforehand to include only surveys using the most common question on asthma (that is, based on symptoms, wheezing). Again, our group has previously argued that changes in this 6th question would also make results based on this question less comparable [4], as happened in three surveys in Brazil.

4- On the inclusion of thesis. During our review we found two theses [5, 6]. Prevalence estimates had already been published and were mentioned as such in our references.

5- On references. Since prevalence estimates observed in some of the study surveys had been reported in more than one article, we quoted all the published papers for each of these surveys.
Sincerely,

Laura C Rodrigues,
London School of Hygiene and Tropical Medicine

References


