Reviewer’s report

Title: Asthma in Black African, Black Caribbean and South Asian adolescents in the MRC DASH study: a cross sectional analysis.

Version: 1 Date: 19 May 2009

Reviewer: Karien Stronks

Reviewer’s report:

This is a well written paper on a subject (ethnic inequalities in asthma prevalence) which is underresearched in Europe. The results of this study show that the prevalence of asthma is lower in most ethnic minority groups, although the advantaged position disappeared after controlling for generation and psychosocial factors. The prevalence was, however, higher in mixed black / white children, which could not be accounted for by known risk factors.

Major Compulsory Revisions
Although the paper is well written, the analysing strategy and also the way the data have been presented, in relation to the research questions, is less clear:

1. In the abstract, the objective focuses on ethnic differences in the prevalence of asthma (description + explanation). In the introduction, however, the authors add a research question on the association between risk factors and asthma. It seems to me that (e.g. given the self-reported character of the data), this dataset does not lend itself very well to studying risk factors. So why do the authors give this research question so much weight?

2. In addition to this, I do not understand why the association between risk factors and asthma is presented for each ethnic group separately. Given the research question of explaining asthma inequalities, one would expect the analyses to focus on the associations in the overall population, controlling for ethnicity. Especially because in each ethnic groups, similar associations have been observed.

3. Given the fact that asthma prevalence was based on self-reported data, could the lower prevalence in some ethnic groups be the result of an impaired accessibility of the health care system for these groups?

4. I understand from Table 3 that the data have not been corrected for ethnicity. It seems to me that this biases the results, as the different strata by generational status partly reflect differences between ethnic groups.

5. The increased risk of asthma among mixed white/black Caribbean population could not be accounted for by known risk factors. How would the authors explain this finding?

6. The authors state at p. 7 that the effect of clustering in schools was examined
in the statistical analyses. I could, however, not find the outcome (nor the interpretation) of these analyses.

Minor Essential Revisions
1. I would suggest to include the distribution of risk factors across ethnic groups in a Table (data p. 8). This information is very essential for understanding the contribution of these risk factors to the explanation of ethnic inequalities in asthma.

2. The conclusion in the abstract refers in particular to risk factors for asthma. This does not fit the central aim of this study, which relates to ethnic inequalities in asthma.

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