Reviewer’s report

Title: The influence of parental smoking and family type on saliva cotinine in UK ethnic minority children: a cross sectional study.

Version: 1 Date: 2 September 2009

Reviewer: Mónica Perez-Ríos

Reviewer’s report:

The paper is in general well written and is focused on an interesting issue such as measuring tobacco exposure through biomarkers. Its novelty is that it is focused on minority children, a population where studies of this kind are lacking.

Major compulsory revisions

The paper has some limitations, especially on the methods section. The main one is that little information is given on how the research was performed. It is not clear how the sample of the DASH study has been recruited. Are those minorities recruited specifically sampled? What happened with other minorities different than Black Caribbean and others? Were they excluded? What is intended as consistent background when ascertaining the ethnicity of the children? It is known that the ethnicity is sometimes difficult to know for children. Where were the participants interviewed? At school? At home? Who interviewed the participants? When was the study performed?

As can be observed many information on the study performance is lacking in the methods section. It would be useful to have percentages of excluded broken down by ethnicity.

Something similar happens with cotinine analysis. As the authors correctly say, cotinine has a half life of around 24-48 h, and authors should state how the sample has been processed (stored, time between collection and analysis, etc) and even if a cold chain has been used.

Were the participants asked if the mother or father smoke at home in their presence? For instance, asking about parents’ consumption is not sufficient to assess environmental tobacco smoke exposure at home.

Authors should indicate how they constructed the socio-economic circumstances with those 17 items. Is this indicator validated? Is it valid? Authors should give more details given the importance of this variable in this study.

A description of the sample is absent. We do not know the mean age or the sex of participants, broken down by ethnicity. A table 1 with these characteristics has to be included.

Minor essential revisions

There are acronyms on the abstract (i.e. DASH).

It is not usual in scientific language to give references in parenthesis as in example (line 3 of the background).
Percentages in table 1 do not sum 100%. They have to be revised.

Discretionary revisions

The last sentences of the first paragraph of the results section are not necessary since they describe the living conditions of the participants.

The discussion should be extended. It is said that children living in lone parent household have higher cotinine levels. Would be an explanation that these houses are smaller due to a lower income of the occupants?

Although genetic differences are mentioned as a possible explanation on the cotinine levels between ethnicity, these differences have to be stressed since there is evidence supporting this. It is also possible that children of ethnic minorities have lower tobacco exposure in hospitality venues than their UK counterparts because they have minor social activities. This possibility should be acknowledged.

The health effects of tobacco should be mentioned in the introduction instead on the last paragraph of the discussion.

Tables 2 and 3 are difficult to understand. Authors may consider reformulating its presentation.

**Level of interest:** An article whose findings are important to those with closely related research interests

**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