Reviewer's report

Title: Prevalence of maternal smoking and environmental tobacco smoke exposure during pregnancy and impact on birth weight: retrospective study using Millennium Cohort

Version: 1 Date: 31 January 2007

Reviewer: Lesley Rushton

Reviewer's report:

General
This paper addresses the important issue of the contribution of active and passive smoke to prematurity and low birth weight and the results confirm those of many other studies. There are some issues which are not addressed in the current form of the paper such as underestimation of ETS although this may be a data problem - see below.

Major Compulsory Revisions (that the author must respond to before a decision on publication can be reached)
Other studies have asked about smoking by household members other than the mother and her partner. This can make a considerable difference to the amount of ETS exposure. In particular if a woman without a partner actually lives in a household with other smokers then in this study the woman would be misclassified as having no ETS. If the data are available then it would be useful to see some analyses incorporating this, providing numbers allow. If not some discussion of this would be appropriate, for example on the influence of any misclassification.

I'm not sure whether the use of birth weight z scores really addresses the issue of small for gestational age. Again if the sample size allows it would be interesting to see whether there is any relationship between smoking and ETS and SGA.

Active smoking is probably the most important risk factor but does it make a difference to the risk estimates, low birth weight, and prematurity if both the mother and her partner smoke i.e. is there any contribution of the ETS?

Studies of other exposures have been able to look at whether the timing of the exposure is important i.e. by trimester. Do the data allow categorisation by trimester i.e. if a partner stopped smoking during the pregnancy?

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

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: 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