Reviewer's report

**Title**: Cigarette smoking and risk of gestational diabetes: a systematic review of observational studies.

**Version**: 1  **Date**: 16 September 2008

**Reviewer**: Paul Terry

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**Minor Essential Revisions**

1. The English in this manuscript is relatively good, but suffers on occasion. For example, page 6: We excluded... that did not access the exposition before outcome.” Did you mean “access the exposure before the outcome?” Page 3: “varying” should be “varies”? Page 4: what do you mean by “controlled” observational studies that examined crude associations? Page 9: by “negative” do you mean “null?” Additional proof-reading is encouraged.

2. Page 6, top: I would think that the fact that the prevalence of smoking does or does not vary across geographical regions / countries does not, in itself, mean anything unless you’re planning an ecological study. Please clarify.

3. Please reference all studies that were considered but excluded. It sounds like you excluded some case-control studies, studies of other tobacco use, and other studies that may be relevant to the overall picture. Even if you don’t include them in your meta-analysis, please cite ALL relevant studies that were considered for inclusion.

4. Perhaps a few words about the quality, type and range of smoking exposure assessment in the studies you included in the meta-analysis.

5. The results for studies that controlled for confounding factors in the abstract do not match those in the text in the following way: the results you claim were from 3 studies in the abstract were clearly from 4 studies in the text. Please correct.

6. The authors speculate (page 9) about the effects of quitting smoking as a potential source of bias. First, please note that some studies have accounted for quitting, and should be mentioned here. Second, bias due to weight gain would tend to show a positive association between quitting and GDM, not necessarily smoking and GDM. Please clarify.

7. In the discussion, I would have been good to discuss at greater length the reasons for the discrepancies and inconsistencies in the literature. Simply mentioning that there have been (or speculating about) inconsistencies in the literature is not enough. Please add a methodological section dealing with reconciling the differences between published studies.
Level of interest: An article whose findings are important to those with closely related research interests

Quality of written English: Needs some language corrections before being published

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