Reviewer’s report

Title: Serum levels of organochlorines in Swedish pregnant women are influenced by high exposures during childhood and adolescence: a cross-sectional study

Version: Date: 20 October 2006

Reviewer: Niklas Johansson

Reviewer's report:

General
In general I think this is a very interesting manuscript that is mostly well-written presentation of important findings. I have some general and specific comments that I would ask the author to address before the manuscript is accepted for publication, however.

Major Compulsory Revisions (that the author must respond to before a decision on publication can be reached)
I find it difficult to navigate through the manuscript as the separation of the text into “Background”, “Methods”, “Results” and “Discussion” is not consequent. The method part contain results (e.g. numbers of analyses below LOQ) and the introductory 1½ paragraphs of the “Discussion” should preferably be moved to “Results”. 
Background. It is a bit confusing to read that the number of PCB congeners and chlorinated pesticides reported is lower than actually presented in the manuscript. It is of course a matter of what information the authors indicate. I would like to suggest a more comprehensive description of the material presented.
Methods. The description of the procedure for interviews and questionnaires is much to vague and should be expanded considerably. I also miss a more general discussion of the limitations of the methods used.
Results. It is obvious to me that the authors have collected a most valuable set of information. I am not certain that they have been able to extract all important information from the data set. Let me take an example: the Authors report that “A few women had high levels of CB 28, CB 52 and CB 101. We hypothesize that exposure to PCBs from building materials in home or working environments could contribute to this observation” This should be an easy task to explore further and the information could be of significant importance for the identification and quantification of current (PCB)sources other than food. It might be that the authors have decided to make this expansion in a separate article. If so this remark could be neglected.

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)
Background. In general the chapter is very brief. It is stated that “Influences of dietary habits during the teenage years were studied since levels in food were higher in the 1970s-80s than in the mid-late 1990s …” It could preferably be expanded to explain that the temporal trends show the same direction but that there are profound differences between compounds with regard to the magnitude of the change. It could also be mentioned that the correlation between organochlorine levels in humans and age has been demonstrated in several previous studies.
As there are no major problem with the scientific content of the contribution I would suggest the manuscript to be tentatively accepted but awaiting the authors response to the proposed compulsory revisions.

What next?: Accept after minor essential revisions

Level of interest: An article of importance in its field

Quality of written English: Acceptable

Statistical review: No, the manuscript does not need to be seen by a statistician.