Reviewer’s report

Title: Response rates and selection problems, with emphasis on mental health variables and DNA-sampling, in large population based cross-sectional and longitudinal studies of adolescents in Norway

Version: 1 Date: 5 March 2010

Reviewer: Huibert Burger

Reviewer’s report:

Major Compulsory Revisions
In general I feel that while the manuscript addresses important and interesting issues relevant to all epidemiologic researchers, the information provided is overwhelming and therefore the reader may lose track quite easily. The manuscript would definitely benefit from more focus, condensation and summarization. In my view the focus should be on predictors of non response to requests for DNA. This is a new hardly researched area that is highly relevant in present day research. The other issues have been addressed by multiple previous studies the authors cite (e.g. Morton 2006, de Winter 2005 et cetera) so I feel these can be presented as side lines next to the main focus on DNA retrieval.

The background section is in my opinion too much a review of what is already known on non-response and attrition. I think it should be focused more on what is mostly unknown, i.e. predictors of refusal of DNA sampling. For instance, the second paragraph on possible strategies to investigate effects of self selection can be safely left out.

At the end of this paragraph, it says that “selection has minor or no impact on the association measures, but such information is insufficient, especially in adolescents and children. Thus more studies are needed”. I do not see why the latter follows from the former. Why is the information from previous work insufficient and why is this especially the case for adolescents? The background section also contains a whole paragraph on the studies analyzed, a paragraph that also appears in the methods.

Minor Essential Revisions
In the results section, the figures in table 1 are repeated. The authors should discuss table 1 in a general way: patterns, trends. One or two figures that the authors consider most important is good but they should not repeat the numbers that can be read in the table.

In the discussion, there are again repetitions of figures and I feel that the discussion can be improved if the authors are able to condense the text and focus on the main points.

Discretionary Revisions
In the methods section, the paragraphs on the SDQ and the HSCL could be much briefer, e.g. by using key references for these instruments.

Is it possible to simplify figure 1 a bit? Perhaps fewer words. There is also substantial overlap with table 1 and I think table 1 is much clearer.

**Level of interest:** An article of importance in its field

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

**Statistical review:** Yes, and I have assessed the statistics in my report.

**Declaration of competing interests:**

I declare that I have no competing interests