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: 8 March 2010

Reviewer: Nicole Huang

Reviewer's report:

This study investigates (1) response rates in adolescent surveys; (2) factors associated with lost to 3-year follow up; (3) factors associated with failure to provide DNA; (4) presence of possible selection bias in adolescent follow-up studies. It is an interesting work. However, a few major concerns need to be addressed.

Major compulsory revisions

1. Literature Review. Although the authors seem to emphasize that the study is significant as there are only several epidemiological studies in investigating factors associated with non-response among adolescents. But no further discussion on why the extensive findings on the topic for general adults from the existing literature cannot be generalized to adolescents. What is so special about this subpopulation? Furthermore, as the authors referred to several articles (e.g. Ref. 10 and 21) in the Discussion, it may be important for the authors to illustrate how their study may be different from the existing ones. Similar comments for their statement on the findings on effects of selection bias are scarce.

2. Methods. Please explain why two questionnaires for mental health were used. Did they serve different purposes?

3. Methods. It is unclear why smoking and physical activities were chosen to be studied for association. Not others? Any justification?

4. Methods. It is unclear why analyzing baseline information for all participants at baseline and participants at both baseline and follow-up can illustrate effects of self-selection. At most, such finding can only help to identify effects of potential self-selection if those participants who were lost to follow-up had also not been participated in the baseline. However, our interest is to know whether the results of the follow-up studies would be influenced by self-selection, isn’t it?

5. Discussion. The discussion is very lengthy and difficult for the audience to follow. It is understandable for a study with so many findings. I strongly encourage the authors to re-structure their discussion section by subheadings and cut down the discussions which are remotely relevant to the findings (e.g. methods of data collection (face to face vs. others) on participation rates on page 19).

6. Discussion. The limitations of work are not clearly stated.
7. Writing. Long sentences in the manuscript are very difficult to follow. It may be helpful if the authors could make the sentences more precise and brief.

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

**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.