Reviewer's report

Title: National cohort study of absolute risk and age-specific incidence of multiple adverse outcomes between adolescence and early middle age

Version: 3 Date: 24 June 2015

Reviewer: Anne L Glowinski

Reviewer's report:

This reviewer has several comments about "National cohort study of absolute risk and age-specific incidence of multiple adverse outcomes between adolescence and early middle age".

Major Compulsory Revisions:

1-In abstract, background and discussion, the focus is about the very interesting topic of the multiple correlations between the outcomes examined in this paper and premature mortality. However, the focus of analyses is not on that, it is only on the absolute risk of each outcome and of premature mortality. Unless the data analysis is revised (discretionary revision), would reorient the background and discussion to fit the analyses which are presented.

2-Psychiatric morbidity.
There is a lot of cohort heterogeneity regarding outcomes available since there is a period where only inpatient episodes are available, another one where outpatient psychiatric diagnoses are available and no period where psychiatric illnesses treated at the level of Primary Care Providers are available. Also, in the last decades, criteria for one or the other (inpatient/opt) may have vastly changed or not, but that is neither mentioned nor reported. The criteria have changed in other countries such as the US. Similarly, the majority of suicide attempts may be expected to not come to attention. I would very strongly suggest some relabeling of psychiatric comorbidity to make all this clearer.

Discretionary Revisions:

3-Many causes of premature death besides suicide and accident, are highly correlated with behavioral antecedents and would be very interesting to examine, e.g., cirrhosis or other alcohol related death, cardiovascular deaths.

4-Some of the outcomes that are labelled "criminality" if they can be pulled out would really be psychiatric comorbidity related (e.g., sentencing to a psychiatric or a drug rehab facility).

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.

Declaration of competing interests:
I declare that I have no competing interests