Reviewer's report

Title: Trends in prevalence of four modifiable ischaemic heart disease risk factors by educational level and gender in The Nord-Trondelag Health Study 1984-2008

Version: 1 Date: 26 January 2012

Reviewer: Michael Davidsen

Reviewer's report:

This paper shows results on trends in prevalence and educational inequalities in four modifiable risk factors for IHD from a major Norwegian Health Survey. The paper is very thorough, read-worthy and coherent and a sound addition to scientific knowledge.

Minor essential revisions
1. Most of the intro is written in present - however the objective of the paper is stated in the past ("... was..."). Please check for consistency throughout the paper.
2. Education as a proxy for socioeconomic position
   In one sentence it is stated that highest education is used and in another that ISCED is used. I suggest you combine this in one sentence - highest education is measured using ISCED.
3. IHD risk factors
   First paragraph: it is stated that you have hypertension if DBP is <90 - it should be >.
4. In the statistical methods the words 'the individual with' is repeated.
   In the comments on diabetes, there are some sentences which are a bit hard to read. Please check.

Discretionary revisions
1. The main title of the paper pertains to trends in prevalence. However the chosen model focuses on trends in educational inequalities. You should consider changing the title of the paper to reflect this fact.
2. Introduction last paragraph: 'For example, diabetes is increasing worldwide.... ' - the following seems to be not an example but more some kind of rationale for the paper.
3. Material and methods, study population
   The sentence on number excluded and participating in HUNT1-HUNT3 is very hard to read - please clarify. You may consider using a table. And please drop
the years of investigation, it is repeated too many times.

4. Statistical methods
Second paragraph: Please consider making the description of computing ridit scores a bit shorter and instead make a reference.
Third paragraph:
It is stated that RII and SII are education-specific - I do not understand this..
The interpretation of RII and SII are nicely presented. However doesn't this conflict with the ridit-scoring where the person with the highest education has the lowest ridit and persons with loest education the highest ridit?

5. Comment
A general comment: the authors use two measures of inequality, one relative and one absolute. This makes sense because the two measures due to different assumptions (1) may show different results. This fact is not mentioned in the paper.

6. Strengths and limitations
It is stated that SII is low when the prevalence is low even with high relative inequality - please provide a reference.

10. Throughout the paper I found the term 'educational attainment', 'educational level', educational difference, social disparity and social position. Please check that you use the terms as intended.

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 hereby declare I have no competing interests.