Reviewer's report

Title: Tracking and prevalence of cardiovascular disease risk factors across socio-economic classes: A longitudinal substudy of The European Youth Heart Study

Version: 1 Date: 21 October 2005

Reviewer: richie poulton

Reviewer's report:

General

The paper contains interesting hypotheses and data. In particular, the idea to examine stability (or rank-order continuity) of selected CVD risk factors within socioecoomic strata over time is excellent. The CVD risk measures are good, and the use of a progressse maximal cycle ergometer test to index fitness is a real strength.

-------------------------------------------------------------------------------------------------------------------------------------

Major Compulsory Revisions (that the author must respond to before a decision on publication can be reached)

The two category SES variable (low vs high) is ok, and probably justified based on the sample size. Nonetheless it would be interesting to see if differences existed when the sample was split into three SES groups: low-medium-high (i.e. a sensitivity analysis with respect to SES categorisation).

I see in the Discussion that the analyses were repeated using the highest SES of either parent (versus mothers occupation only). I did not find the rationale for using only the mothers occupation to define SES particularly strong, and in fact believe the better variable is that which combines information from both mother and father. Thus I recommend this be done for the main analyses. Any differences that appear when using either mother OR fathers occupation by themselves (conducted as secondary analyses) can still be discussed when trying to reconcile/explain previously inconsistent findings.

The data in Tables 3, 4 & 5 were fascinating, but I would like to see this using a more robust SES variable as outlined above.

As it stands, the Discussion lacks focus, and is a bit lengthy. The substantive findings should be discussed in more detail (whatever they are following re-analysis as above), and the method issues (be they about tracking or about previous inconsistent findings) should be presented to 1. elucidate and 2. contextualise the current findings. The 'take-home' public health message for interventionists and policy makers can also be stated more succinctly.

-------------------------------------------------------------------------------------------------------------------------------------

Minor Essential Revisions (such as missing labels on figures, or the wrong use of a term, which the author can be trusted to correct)

Be consistent in the use of SES group descriptors. That is, Blue-collar and White- collar are used frequently, but Low and High are also used. The latter terms are more informative, and should probably be used thoughout.
Discretionary Revisions (which the author can choose to ignore)

What next?: Unable to decide on acceptance or rejection until the authors have responded to the major compulsory revisions

Level of interest: An article of importance in its field

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

Statistical review: No

Declaration of competing interests:

I declare that I have no competing interests.