Author's response to reviews

Title: Geographical variation in cardiovascular incidence: results from the British Women's Heart and Health Study

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Author's response to reviews: see over
**Geographical variation in cardiovascular incidence: results from the British Women’s Heart and Health Study**

Response to reviewers, October 2010

**Response to Reviewer 1**
We thank the reviewer for their supportive comments.

**Response to Reviewer 2**
We thank the reviewer for their positive notes. We have already tested for between-region differences in LDL (Table 1). We have not included metabolic syndrome since there is debate about how valuable this is and we include all of its components as well as additional key CVD risk factors (such as LDL and smoking) in our analysis. We are unclear about what the reviewer is referring to with respect to cycle length or differences of care, but would be happy to respond to these comments with further information.

**Response to Reviewer 3**
Major compulsory revisions:
1. Clarification of definition of MI and unstable angina was requested. We have now revised the wording in the Appendix to make it clear that the criteria for unstable angina do not include ST segment changes or raised cardiac enzymes. This revised, more concise wording has been moved to an appropriate place in the main text.
2. We thank the reviewer for pointing out that it was difficult to match up the figures given relating to the progression of individuals through the study in different sections of the Methods. We have now included a flow chart to bring these components together.
3. Reference to event indicator (Pg 6): this has now been clarified in the text.
4. The reviewer crucially omits the last part of the quote sentence: “although these estimates are imprecise”. By stating this, we are acknowledging that we have insufficient power to provide conclusive evidence of between region differences, but we have still observed a difference, and that is the subject of this paragraph. We have already stated at the start of this paragraph that the results being discussed are presented in Table 3.
5. The reviewer was unsure what variation we were referring to in the third sentence of the Discussion. This has now been clarified (Pg 9).
6. The reviewer has not differentiated between the results of analysing prevalence and of analysing incidence (as here). We have therefore tried to make this more apparent in the relevant section of the Discussion (Pg 9).

Minor essential revisions:
1. Abstract: the typo has been corrected.
2. Methods: the number of self-reported cases excluded due to missing year is now given (Pg 5).
3. The total number of responders in each region is already given in Table 1, but is now also provided at the top of Table 2.

In addition to these revisions, the hazard ratios presented in Table 3 have also been revised (all changes are minor) due to a minor programming error.