Author's response to reviews

Title: Socioeconomic differences in cancer survival: The Norwegian Women and Cancer Study

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Thank you for your mail of 20 April 2009 with some further comments from referee 2. We hereby resubmit our paper. The paper has been revised, and we have endeavoured to edit the text carefully following the referees suggestions, which are highlighted in red below, with underlining and italics font. The referees’ comments are cited with Arial font.

Our response can be summed as follows:

Due to some unexpected results: i.e. the poorer prognosis in educated women with colorectal cancer as well as improved survival by high SES for ovarian cancer, I feel the authors should consider the role of confounding factors that have not been explored by this study, such as weight, BMI, diet or exercise. So I feel before it is published a couple of sentences should be added to explain this and perhaps a paragraph on limitations of the study.

We thank for the suggestion. The text indicating that we tested for potential confounders has been slightly changed, and do now read as follows (page 6, line 14):

*Other lifestyle or demographic variables such as body mass index as weight in kilos divided by height squared, level of physical activity, parity, use of postmenopausal hormone replacement therapy (HT) and hormonal contraceptives (HC), intake of alcohol, diet, and region of living were tentatively added to each site-specific model, and included whenever they changed the association of interest by at least 5%.*

However, these variables had no effect on risk estimates, except for the observed confounding effect of alcohol consumption on the association between education and survival of colorectal cancer.

The major limitation of the study is the lack of information on behaviour after the time of diagnosis, which is mentioned on page 9, line 3:

*However, we did not have information on changes in behaviour after the time of diagnosis, which may have affected survival.*
Also the statement on page 10, third paragraph, first sentence that survival of cancer is affected by three factors is not entirely right as there are many factors that affect survival, stage at diagnosis, underlying patient health status, access to services, quality of services, delay etc. Perhaps this sentence can be expanded.

The paragraph on page 10, line 21 has now been expanded according to the referee’s suggestion:

*Survival of cancer is influenced by several factors which can be classified into three groups: biological characteristics of the tumour (including stage at diagnosis), patient characteristics (e.g. lifestyle, health status), and treatment (quality of and access to health services) [8].*