Reviewer's report

Title: Are variations in rates of attending cultural activities associated with population health in the United States?

Version: Date: 2 November 2006

Reviewer: Amanda Nicholson

Reviewer's report:

General

Thank you for the revised paper and your constructive responses to my comments. The changes you have made to the discussion and additional analyses have made the paper much clearer. I have a few remaining comments.

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

Cultural activities index as dichotomous / categorical variable
I am sorry if my previous comment was not clear. I would like to see the risk of poor health described using number of cultural events attended as a binary and categorical variable, as well as a continuous variable. To report, perhaps in the text, the odds ratio of poor health for those attending any activity versus none and the odd ratios for groups 1, 2, 3+ versus none would give a clearer picture of the relationship.

Mediator analysis & Figures
Methods p 6 para 3
I found these results hard to follow & could not understand what you had done without looking up the Baron-Kenny method & Sobel test independently. The Baron –Kenny method of estimating the mediated effect c’ by a*b could be explained in more detail in the methods as the existing paragraph is not easy to follow. Labels & descriptions of a, b, c and c’ would make things easier!

Results p9 para 3 .
My understanding is that the Sobel test is for the mediation effect of cultural activities rather than effect of cultural activities on SRH - so this section is rather confusing. Could the Sobel test result be included in the Figures?

Figures 1a,1b,1c
Much of the vital information and results are included in footnotes rather than Figures so that the footnotes are now lengthy. With more explanation in the Methods section perhaps more of the data could presented on the figures with appropriate labels, hence avoiding repetition in the footnotes. Adjustment variables should be listed in the figures (which I know is contradictory advice lengthening the footnotes!)

Discussion
p 9 para 1
“attending cultural activities, up to a certain level, and SRH”.
I am not clear what this means. It seems to imply a ceiling effect in the relationship which is not reported elsewhere.

p 12 para 3 - dealing with frequency of attending each type of activity.
Wording is unclear in line 4-5.
Line 5 “it is likely “ - should be changed to “it is possible” rather than presume what the data might have shown.

Discretionary Revisions (which the author can choose to ignore)
What next?: Accept after minor essential revisions

Level of interest: An article whose findings are important to those with closely related research interests

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.