Reviewer's report

Title: Adverse Childhood Experiences are Associated with the Risk of Lung Cancer: A Prospective Cohort Study

Version: 1 Date: 16 July 2009

Reviewer: Joseph Bauer

Reviewer's report:

This is a very nice manuscript. Very detailed and thorough methodology and statistical procedures. Additionally, you were very thoughtful about some limitations to what you have accomplished - meaning that you presented a very balanced presentation.

Major Compulsory Revisions - None

Minor Essential Revisions - Page 12, end of second paragraph. It is stated - "...although a small number of cases (N=4) among the exposed pose a challenge to conclusive statements." - which I think is a huge overstatement. I would suggest the end part be re-stated as "...pose a challenge in interpretation." Attempting to make "conclusive statements" with four cases is folly at best.

- Page 14, entire second paragraph of discussion section. I would strongly suggest moving that up front to ground your entire thesis in a theoretical model (with references). Here it seems out of place. I think it would strengthen the entire foundation of your paper. (Note: Also, a nice schematic/conceptual model that would help the reader visualize the mechanisms of action of your thesis - would be a good touch).

Discretionary Revisions - Also, in your discussion section - Personally, I would have preferred some time devoted to potential ethical problems - with Kaiser Permanente potentially utilizing the findings, with respect to scoring on Adverse Childhood Experiences (ACE) to potentially deny insurance coverage/ increase insurance rates for those with higher scores. That is certainly an extension of the findings that are not touched upon (whether its a risk factor of a risk factor (smoking) or a direct effect (albeit relatively smaller than smoking)- it should be a point of consideration (I think). Its akin to discussions of genetic profiling - where genetic trait relationships with disease outcomes - might lead to discrimination. Here, we have a more 'social-cultural profiling' relationships with disease outcomes. What is a bit unpalatable - is that individuals (whether through inherited genes or exposures to social/ psychological traumas while growing up) - have no choice and no control.

General questions - Page 6 - description of items to measure various ACE's. Why have some factors measured with 4 questions (for example), while others only have two? Wouldn't the smaller number of questions necessarily limit the range of variation of the factor? (minor point). At points throughout the
manuscript you relate that a relationship is 'graded' - which I interpret as saying there is a dose-response gradient. For the second paragraph on page 10, starting with " multivariable-adjusted models . . ." - I think you need to mention that you expected such a relationship. (minor point). In Figure 1 (at bottom) - write out "observations" - and don't have 'obs.' (minor point).

**Level of interest:** An article of importance in its field

**Quality of written English:** Acceptable

**Statistical review:** Yes, and I have assessed the statistics in my report.

**Declaration of competing interests:**

I declare that I have no competing interests.