Author's response to reviews

Title: Unstaged Cancer in the United States: A Population-Based Study

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Author's response to reviews:

Dear Editor,

We appreciate the excellent reviews of our paper. Here are the reviewer comments with our accompanying responses.

Reviewer's report
Title: Unknown Staged Cancer in the United States: A Population-Based Study
Version: 1 Date: 9 June 2011
Reviewer: Tim Aldrich

Reviewer's report:
Discretionary Revisions: A comment would be useful for exclusion of Hispanics and other ethnic groups, given the ‘other’ SEER publications on those specific sub-populations. The potential for assessment of location/place variables was completely missed. Urban/rural seems highly feasible. The ‘crying need’ for a look at Appalachia is missed!?

Response: The following sentence was added in the Methods, at the end of the Variables section: The last sentence of the Variables section in the Methods now says: “In addition, age (0-59, 60-79, and 80 years or older), sex, race (whites, blacks), and marital status (married [or cohabitating] or single), ethnicity, and Appalachia residence status were included as variables in the study.”

A new sentence was added at the end of the first paragraph of the Results, which says: “In addition, patients of Spanish, Hispanic, or Latino descent (Figure 3) and residents of Appalachia (Figure 4) were significantly less likely to have their cancer staged.”

The following paragraph was added to the Discussion: “The higher percentage of unstaged cases who are of Spanish-Hispanic-Latino descent or who reside in Appalachia may be explained, at least in part, by lower levels of health insurance, which limits one’s ability to undergo testing and examinations. Culture may also influence the patient’s willingness to consent to a diagnostic workup. In
addition, a thorough cancer workup is more limited among patients of poorer overall health status. Further research focusing on cancer staging by ethnicity and Appalachia status is warranted.”

Minor, Essential Revisions: Reference to z-test in methods for comparisons over time of proportions unstaged. I am confident that a comparison of proportions was actually used, in the form of a Z-test, but I believe that one remark should be clarified.

Response: This sentence was deleted since we took a different approach to assess trend. It was inadvertently left over from an earlier draft.

Interchangeable use of unknown stage and unstaged could be tidied up. The exclusion of the DC only and autopsy cases clearly connects with the ‘unknown’ category consideration. I suggest simply staying with ‘unstaged’ throughout.

Response: We changed “unknown stage” to “unstaged” throughout the paper.

Reviewer’s report
Title: Unknown Staged Cancer in the United States: A Population-Based Study
Version: 1 Date: 5 July 2011
Reviewer: Sara Karami

Reviewer’s report:
The manuscript, “Unknown Staged Cancer in the United States: A Population-Based Study” is clear, well-written, and useful investigation of non-modifiable risk factors (i.e. sex, race) and un-staged cancers. The results of the paper add to and are consistent with other previously published work. The use of SEER data and design of the study was appropriate for this explorative study. The conclusions are supported by the results and not overstated. Well done.

Response. Thank you.

Minor Comments:
(1) Be consistent with the use of U.S. and United States. Use the acronym U.S. after spelling the word out the first time in the introduction section of the manuscript.

Response: This change was made through the paper.

(2) The last sentence of the second paragraph in the introduction is confusion. Please reword the last portion of the phrase ……are less likely to not have their tumor assigned a stage.

Response: The sentence now concludes with “… are more likely to have unstaged cancer.”
(2) Punctuation marks are misused a few times in the introduction section of the manuscript. Please edit this section more carefully. (For example: .[4]., at the end of sentence two of paragraph two in the introduction).

Response: Fixed.

(4) In the Tables and Figures please change the word Breast to Female Breast.

Response: Done.

(5) Reference the noted statement in the discussion: (Note that in the United States, only high risk individuals are recommended to pursue esophageal or stomach cancer screening).

Response: The reference was added.

Major Comments: (1) In the methods section the author(s) states their data consists of 1,040,381 male and 1,011,355 female participants with newly diagnosed cancers. They continue to describe statistical methods and study results by race (white and black) even though they explain that SEER covers a wide diverse racial/ethnic population of the US (23% African American, 40% Hispanic, 42% American Indian...). Please clarify if the study population (1,040,381 male and 1,011,355 female) consisted of only black and white subjects or if they were mixed ethnically/racially. If the study population is mixed, please provide statistics (number) by race/ethnicity too.

Response: The first sentence of the Methods now says “Analyses are based on 2,726,147 (about 93% white and black) . . .”

Initially the paper just focused on white and black patients. Now, however, we include all racial groups in our analysis on ethnicity and Appalachia.

In the Results, we have clarified the analyses where we focus on just white and blacks verses all races.

(3) Referring back to the previous question, in the methods section when the authors are describing their variables, what constituted white versus black. Are Asians considered white? What about Hispanics? The self-reporting and relying on medical records, may also be a limitation of SEER worth mentioning in the discussion section.

Response: The following was added after the first paragraph in the Methods: “Among the newly diagnosed cancer cases, 2,493,516 (91%) were classified as non-Spanish-Hispanic-Latino (83% white, 10% black, 1% American Indian/Alaska Native, and 6% Asian or Pacific Islander) and 232,631 (9%) were classified as Spanish-Hispanic-Latino (97% white, 1% black, 1% American Indian/Alaska Native, and 1% Asian or Pacific Islander).”

(4) In Table 1 please clarify what is meant by year (the rate difference for each cancer between 2000-2001 and 2006-2007) in the footnotes or by changing the
variable name all together. Also please describe what year represents in the results section of the manuscript. Currently the author(s) states: A significant decrease in unknown staging occurs for each of the cancers, with...more detail is needed describing the decreasing rate over time.

Response: See our Response to the first reviewers Comment 3.

To clarify, the following was added to the Methods: “In a multiple regression model, the percentage of unstaged cancer was regressed on calendar year (2000 through 2007), race (white, black) and sex and evaluated for statistical significance using the F test.”

In Table 1 we now refer to calendar year and a footnote says that the reported P values are based on the F test.

(5) In the results section the author(s) states: A significant decrease in unknown staging occurs for each of the cancers, with the exception of malignancies associated with oral cavity and pharynx, melanoma of the skin and the thyroid, where no significant change occurred. However according to results provided in Table 1, the authors fails to describe the significant increase in rate for stomach cancer over time as well as the non-significant decrease in rate for cervical cancer over time. Lastly, blacks also had a higher rate of un-staged cancers of the kidney and renal pelvis compared to whites, which is not listed/noted in the results.

Response: We now say “A significant decrease in unstaged disease occurred for each of the cancers, with the exception of malignancies associated with the oral cavity and pharynx, melanoma of the skin, cervix, and the thyroid, where no significant change occurred. A significant increase in unstaged stomach cancer occurred. Blacks had significantly higher levels of unstaged cancers of the stomach, rectum, colon, skin (melanoma), urinary bladder, kidney and renal pelvis, thyroid, breast, corpus, cervix, and ovaries.”