Author's response to reviews

Title: Screening Mammography Beliefs and Recommendations: A Web-based Survey of Primary Care Physicians

Authors:

Shagufta Yasmeen (shagufta.yasmeen@ucdmc.ucdavis.edu)
Patrick S Romano (psromano@ucdavis.edu)
Daniel J Tancredi (djtancredi@ucdavis.edu)
Naomi H Saito (nhsaito@ucdavis.edu)
Julie Rainwater (julie.rainwater@ucdmc.ucdavis.edu)
Richard L Kravitz (rlkravitz@ucdavis.edu)

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Author's response to reviews: see over
Response to reviewer's report

Title: Screening Mammography Beliefs and Recommendations: A Web-based Survey of Primary Care Physicians

Version: 3 Date: 12 September 2011

Reviewer: Mariona Pons-Vígues

Reviewer's report:

Minor essential revisions:
This paper aims to explore primary health physician’s beliefs and recommendations for screening mammography for average risk women in various age categories, the influence of USPSTF guidelines on their clinical practice and their hypothetical decisions for mammography in specific clinical scenarios.

My new comments are below:

(1) - It is necessary to describe the statistical analysis in the abstract:

Response

Please see the revised abstract, and including the statistical analysis (page # 1; line # 10-14)

Cross-sectional analysis examined PCPs perceived effectiveness of SM, and recommendation for SM in response to hypothetical case scenarios. PCPs responses were measured using 4-5 point adjectival scales. Differences in perceived effectiveness and recommendations for SM were examined after adjusting for PCPs specialty, race/ethnicity, and the US region.

(2) - Objective: It is recommended to specify the setting and the year of the study

Response

Please see the revised objective: (page # 4; line # 6-10)

The objectives of this study were to explore (1) US primary care physicians’ beliefs about the effectiveness of screening mammography in 2009; (2) their decisions regarding screening mammography in hypothetical clinical case scenarios; and (3) predictors of effectiveness and recommendations for screening mammography in different age categories.

(3) - Methods section

- It should include the global number of the study population (approximately)
- Why the sample size is 11,922 people? How did you calculate the size?
- Which are the results of the validation? Please, cite a document where we can consult this information

Response

It should include the global number of the study population (approximately)
Please see (page # 6; line # 11-15) explaining the global number of the study population.

We asked the AMA to provide overall counts of physicians, with and without those with email addresses, for 3 primary care specialties in the 4 US regions. A total of 261721 were identified in the data base and email addresses were available for (44.7%) 119747; (40.3%) 48378 family physicians, (43.6%) 52199 general internists, and (16%) 19170 obstetricians/gynecologists.

Why the sample size is 11,922 people? How did you calculate the size?

Response

Please see (page # 6; line # 15-25) and (page # 8; line # 1-3)

Survey methodology

The sampling frame was stratified by physician specialty (IM, FP and OBG) and years in practice (1-9, 10-20 and >20). Systematic random sampling was performed after sorting the sampling frame by U.S. Census region (Northeast, Midwest, South, and West) to ensure adequate representation of primary care physicians in each Census region (Northeast, Midwest, South, and West). OBG and the US regions where <= 30% physicians were accessible by email were oversampled at a rate of approximately 2.5 to achieve appropriate representation of physicians by specialty (IM, FP and OBG) in all regions. The probability of selection for physicians in each specialty was proportional to the specialty’s representation in the U.S. physician population. Population counts and sample specifications were provided to the AMA. Sample variables requested from the AMA are displayed in (Table 1). Anticipating a 10% response rate we estimated that a total of 11,922 would be sufficient to provide 80% power to find a 10% difference between physician specialties including family physicians, general internal medicine and obstetrics and gynecology.

Which are the results of the validation? Please, cite a document where we can consult this information

Response

We did not perform validation. We pilot tested the questionnaire in two separate settings that included primary care physician participants in a research seminar and a web based questionnaire. This purpose of this was to check any formatting issues, software, programming errors, and get feed back from colleagues about the questionnaire to improve concepts and clarify possible responses before the final survey was emailed to the AMA for distribution to the primary care physicians. The data obtained from pilot testing was not included in the present analysis.

(4) Explain the handling of missing values. All of the 684 participants respond to all the questions/items?
Response
Please see (page # 8; line # 5-6)
The rates for missing values were less than 5% for item specific response and were excluded from
the analysis.

(5) -Results: There are differences between responders and non-responders?
Response
Please see (page # 11; line # 12-23) about the differences between responders and non-
responders as documented below.

Result section
There were no differences in demographic and practice characteristics of physicians who
responded to the first and second Med E-Mail Broadcast. Physicians who responded to third Med
E-Mail Broadcast (third-wave respondents) compared to earlier respondents showed significant
differences by demographic and practice characteristics. Early respondents (first and second
wave) compared to third-wave respondents were more likely to be females (58% versus 44%, p=
<0.001), 25-54 years of age compared to >=55 years (84% versus 69%), OBG compared to FP
(OBG 34%vs 23%, FP 32% versus 41%), those reporting higher percent of new females patients
seen per week (27% versus 26%) and physicians who were <= 9 years in practice (48% versus
38%) p=<0.001. However, there were no differences in responses between early compared to late
respondents in physician’s perceived belief in mammography effectiveness in reducing breast
cancer mortality, responses to guideline influence, and recommendations for screening for women
in different age categories.

(6) -Discussion
Please see additional text (page # 14; line # 20-24)
We chose to sample PCPs from a technically literate sampling frame thus generality of the results
is limited as the respondents to our web-based survey may not represent the general population of
PCPs Although initial response rate improved with a higher incentive ($20 versus $5); however it is
unlikely that sending additional email reminders or higher incentive would change our study results,
or external validity.

(7) olt should discuss more in deep how the revised the USPSTF guidelines affected
the results of the study.

Please see additional text (page #13; line #8-13)

To the extent that USPSTF guidelines have more influence on the mammography recommendations of family physicians and general internists, compared with OBG, the observed differences in perceived effectiveness and recommendations for women aged 40-49 years in Table 3 may further increase after publication of the revised USPSTF guidelines. The revised guidelines did not address mammography use for older women or women with comorbid illnesses, so the analyses in Table 2 should not be affected.

**Level of interest:** An article of limited interest

**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.

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**Response to reviewer’s report**

**Title:** Screening Mammography Beliefs and Recommendations: A Web-based Survey of Primary Care Physicians

**Version:** 3  **Date:** 6 September 2011

**Reviewer:** Paul Reiter

**Reviewer’s report:**

The authors adequately addressed most reviewer comments in this revised manuscript. However, there are a few issues that remain.

**Major Compulsory Revisions**

1. I’m still not clear what the novel contribution of this paper is. With the authors clarifying that data were in fact collected prior to the recent USPSTF statement on mammography, the reported data are highly similar to existing studies. The authors need to better indicate the unique contribution of this paper and what it would add to the existing literature.

**Response**

Please see the revised text (Page #15; line #11-16)

We agree with the reviewer that many of the factors identified in this study have been described previously. However, this study examined complex factors, and the importance of the cognitive
component in mammography decision making-in particular in the face of uncertain guidelines among younger and older patients with specific clinical profiles.

One of the key findings of this study is that primary care physicians’ perceptions of the effectiveness of screening mammography is very important in decision making than the scientific evidence behind a guideline, additionally the presence of comorbidity, play a minor role.

2. The Discussion section could also be improved upon in terms of content and flow. For example, the first full paragraph on p. 12 seems out of place. I think the discussion could be strengthened with another round of careful reading and revision.

Response
Please see the revised text (Pages # 13 and 14)

Minor Essential Revisions
3. There are several typographical errors throughout the paper. Please read closely and correct.

Response
Sorry for these mistakes. I have rechecked the entire manuscript and made corrections.

4. As on the original manuscript, there is still mention of both multinomial and ordinal regression. The response letter indicated that ordinal regression was in fact used, so please remove mention of multinomial regression from the Abstract (4th sentence in the abstract results).

Response
Please see the revised text (Pages # 1, line 20)
Sorry for these mistakes, I have made corrections in the results section of the abstract.

5. Results (p. 9): In describing results from Figure 2, it says that 86% of OBGs indicated “always” recommending, etc. However, Figure 2 says it displays the percent who “often and always recommend”. Ideally, the text and figure would use the same outcome classification. Also, the current y-axis for Figure 2 is not formatted properly (the numbers are stacked on one another), making it difficult to interpret.

Response
Response categories “often” and “always” were combined as “always” in the text and in figure 2. Please see the revised figure 2 (reformatted). The revised figure 2 shows % response “always recommended”.

6. Similarly, the Discussion says that 80% of respondents reported recommending mammograms to 40-49 year olds (p. 11-12). Yet, the Results text referred to in Comment #5 says that 86% of OBGs reported always recommending, but only 67% of IMs and 59% of FPs did so. These percentages would not appear to produce 80% overall recommending. Perhaps, this is again due to the Results text using “always” and the Discussion text using “always/often” (similar to Figure 2). Please be consistent in outcome definitions.

Response
Please see the revised text with corrections (Pages # 12, line# 3-8)

My apologies for presenting separate data in the text and the figures. The % in the results section and the discussion are consistent now. We combined the response categories “often” and “always” in the results section as mentioned above.

7. The Discussion indicates that ACOG recommends average risk women begin annual mammography at age 40 (p. 11). I believe ACOG recommends screening every 1-2 years for this age group, which is not entirely the same as annual screening. I apologize if I am incorrect about ACOG’s recommendations, but please edit this sentence if the recommendations are for every 1-2 years.

Response
Please see the revised text (Pages # 3, line # 12-14 and page #13, line# 14-17 and page). The American College of Obstetricians and Gynecologists (ACOG) [4] recommends mammography every one to two years in women from 40 to 50 years of age and annually after age 50 with no specific age for cessation.

8. Table 2: Please align the text and numbers in each row to make the table easier to read. Also, the footnote has a few typos.

I apologize for these mistakes. Please see the revised table 2 reformatted. I have corrected the typos.
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, the manuscript does not need to be seen by a statistician.

Declaration of competing interests:
I declare that I have no competing interests