Author's response to reviews

Title: Predictors of colorectal cancer screening in diverse primary care practices

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Author's response to reviews: see over
Reviewer's report

Title: Predictors of colorectal cancer screening in diverse primary care practices

Version: 1 Date: 31 May 2006

Reviewer: Edmund Bini

Reviewer's report:

General

Zimmerman et al evaluated determinants of colorectal cancer (CRC) screening in patients 66 years of age and older from 30 diverse primary care practices. The key findings of their study was the low rates of CRC screening and the association between CRC screening with more office visits as well as routinely receiving the influenza vaccination. Because of the link with immunization status, the authors concluded that linking preventive services might have a beneficial effect on CRC screening. Although several studies have shown that CRC screening rates are low, the link with immunization is an interesting and novel finding. Below are my comments to assist in improving the manuscript.

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

1. The range of each screening type for the 30 sites should be reported. Done, as requested.

2. Is there any association between the type of visit (acute, chronic, or preventive) and screening rates? Because of collinearity issues, we did not include analyses with type of visit, instead using % PCP visits.

3. What aspects of CRC screening (if any) were included in the patient survey (top of page 5)? None. Without using a signed consent form, we were unable to ask specific screening questions.

4. Were the 13,000 visits included in this study all visits or a sample of the visits (paragraph 2 on page 5)? Please clarify. All visits during the study period were recorded. Text changed accordingly.

5. The manuscript would be strengthened if recommended and refused screening rates were included in the paper if available. If not, please mention as a limitation of the study. Done, added to Results as requested.

6. Was information available about whether patients were referred to GI clinic or seen by a GI provider? This information was not included in the data base. However, if endoscopy were performed, then it was usually by a GI specialist. Only a few primary care providers performed sigmoidoscopy in the office.

7. The discussion should be expanded to discuss how linking preventive services (CRC screening and immunization) could be accomplished. This section was expanded somewhat, as suggested.

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Minor Essential Revisions (such as missing labels on figures, or the wrong use of a term, which the author can be trusted to correct)

1. Include a reference for the statements about Healthy People 2010 (page 3, paragraph 1). Done, as requested.

2. Although the rates of sigmoidoscopy, colonoscopy, and barium enema were combined due to small numbers, it would be informative to include a breakdown of the proportion of patients who received each of these tests. Done, added to Results as requested.

3. What proportion of patients had ever had any one of the CRC screening tests? 60% had one or more of these tests; 40% had none. This was added to the Results.

Discretionary Revisions (which the author can choose to ignore)

1. FOBT rates were broken down as within 1 year or more than 1 year. National surveys have used within the last 2 years in order to capture those who had a FOBT just outside the 1 year window. The authors should also consider reporting FOBT rates within 2 years if the data are easily available. While it is true that national surveys report FOBT within two years, recommendations are for annual screening. Because this was the stricter measure, we chose to report annual rates. Then, because rates were low, we added an analysis that looked at the entire study period.

2. Why was getting a sigmoidoscopy, colonoscopy, or barium enema associated with fewer PCP visits? We suggest two possible explanations. First, we believe that this is due to a healthy patient effect. That is, healthier patients would require fewer visits than those with more health problems. Second, those with GI problems are more likely to seek specialist care and GI specialists perform endoscopy.
Understanding the predictors of exposure to colorectal cancer screening is an important part of improving penetration of the screening into unscreened populations.

This analysis is a little "stale" coming as it does 5 years or more after the office visits in question occurred. There have been a number of policy changes that have occurred which may make the report outdated.

- Guideline changes in favor of screening by the US Preventive Services Task Force. The data were analyzed in the context of the guidelines in place at the time that visits were occurring. Currently both ACS and USPSTF recommend FOBT as an acceptable option. The influenza link is somewhat novel.

- More widespread coverage of colonoscopy for screening average risk adults, including Medicare members. This was addressed in the Discussion.

- Publicity campaigns, such as the now famous Katie Couric colonoscopy (Arch Intern Med. 2003 Jul 14;163(13):1601-5. The findings from this study indicated that the population reached by the Katie Couric effort was considerably younger (mean age = 52-60 years) than the group studied herein (age ≥ 64 years). This means that a number of individuals for whom colonoscopy was not indicated may have received one.

In addition, I think a big part of the results can be attributable to a reminder program in the VA system specifically for FOBT screening. This was addressed in the Discussion and shows the effectiveness of a multi-pronged approach such as that which the VA uses.

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

1. The authors should indicate how the predictor variables were chosen for this analysis (were they just what was available from the prior study, or were there meaningful clinical or scientific reasons to consider them in the analysis). Predictor variables were based on previous research of factors related to missed opportunities to vaccinate adults.

2. The authors should re-evaluate their logistic regression models based on likely interactions between age, male gender, income, and VA clinic attendance. This may explain many of the observed associations. If interactions are present, perhaps the logistic regression models can be made to be more parsimonious, with fewer predictors included. Done, as requested. No significant interactions were found. This was added to the footnotes of Table 3.
3. The obvious conclusion from the observation of screening exposure and clinic visits is that primary care physicians should investigate means to deliver screening outside of standard office visits. Mailed reminders or invitations to low-attending patients is one way to boost screening exposure. If the authors agree, they should include this in their discussion. Done, added to Discussion as requested.