Author's response to reviews

Title: Demographic and occupational predictors of early response to a mailed invitation to enroll in a longitudinal health study

Authors:

Jean-Paul Chretian (Jean-Paul.Chretian@na.amedd.army.mil)
Laura K. Chu (laurakaychu@yahoo.com)
Tyler C. Smith (smith@nhrc.navy.mil)
Besa Smith (besa@nhrc.navy.mil)
Margaret A.K. Ryan (ryan@nhrc.navy.mil)

Version: 2 Date: 15 December 2006

Author's response to reviews: see over
December 2006

BMC Medical Research Methodology
BioMed Central Ltd
Middlesex House
34-42 Cleveland Street
London W1T 4LB, UK

Dear Editor Puebla,

Enclosed please find our revised manuscript titled, "Demographic and occupational predictors of early response to a mailed invitation to enroll in a longitudinal health study." We appreciate the opportunity to respond to your comments and all authors agree this revision has improved the clarity of our objectives in the original manuscript. We have submitted a revised version of the manuscript with comments responding to the below reviewer comments (uploaded in the additional materials files) as well as a clean version of the manuscript. Our responses to each of the reviewers’ comments (in bold) follow below:

**Reviewer 1:**

**General:** Well written article, clear focus, adds relevant information to the field, context and current literature well described.

We appreciate the reviewer’s thoughts on the value of our research.

**Minor essential revisions:**

1. In the Methods section, the authors mention that participants were asked to complete a questionnaire for participation in the Millennium Cohort Study. The authors should explain what exactly persons were invited for. For example, did completion of the questionnaire involve that participants would have regular health checks or examinations in the future? This is relevant, because participation depends on the type of study one is invited for. If possible, the authors should consider publishing an invitation letter in the appendix.

To better explain the level of involvement for each participant, additional information was added to the first paragraph of the study population section.

2. In the introduction, the authors briefly state that associations between participation status and participant characteristics are not consistently found due to differences in survey methodology, type, or population. This sentence should be clarified.
As requested, this sentence has been re-worded to better clarify this point.

3. Given the fact, that associations between participation status and participant characteristics are not consistent, the authors should add this point as a limitation of the present study to the discussion section. For example, the results presented in this study might be conceptually relevant for studies in older people, but it is likely that predictors would be different in a cohort of older persons.

A discussion of this limitation has been added to the discussion section.

4. Type error in reference 29 (author name).

Type error in author name has been corrected.

Reviewer 2:

General

This is an interesting paper that covers an area where there has been little previous work. The paper is well written and the methodology appears to be sound. The issues that give rise to comment relate to the generalisability of the results and their practical significance.

We are grateful for the reviewer’s comments on our research.

Major Compulsory Revisions:

1. I would like the authors to make some comment on how representative is their sample of the wider population. In particular I would like comments on whether a sample taken from a military population can be equated with a non-military population. It is possible for example that people who have served in the armed forces have a systematically different approach to answering requests for information.

A discussion of the generalizability of our results has been added to the discussion section.

2. I would also like to see some comments about the practical significance of the number of people positively signalling refusal to participate. In their study the authors noted 704 out of 214,391 people which is 0.3%. Statistical inference can certainly be made from this number given the very large sample size, but in much smaller studies I am uncertain about the effect of such a small proportion on the practical process of the study and I think some comment on this would be appropriate. Should study methods be changed to take into account refusers and avoid unnecessary attempts to elicit response when the absolute number of such people may be small?
An additional paragraph discussing the practical significance of early refusers has been included in the discussion section.

**Reviewer 3:**

**General**

This paper is well written and clearly presents the methods and results. The tables are also clear and the figures present the data in an interesting manner. The data set is rich and provides identical data for both responder and non-responders. Similar studies have not had so much data on non-responders. The statistical methods are appropriate for the data and well described.

1. The paper would be more interesting and useful if late non-responders were presented as a separate group and would take better advantage of this rich data set. The justification cited for combining late and non-responders was unconvincing to me. The justification is that the goal of the investigation was “not to identify characteristics associated with eventual consent or terminal non-response, a topic that has received much attention.” More work is certainly needed on identifying characteristics of non-respondents and few studies have had identical data on non-responders in such a large set of data. In addition it would be helpful for the readers to be able to compare the characteristics of non-responders in this study to similar studies. The authors should provide the number of late non-responders at the very least.

The present analysis was designed to gain insight into characteristics of participants who choose to respond early as either a consenting or declining participant. With increasing budgetary constraints we have looked for creative means to more efficiently use funds while maintaining the integrity of the science. We were initially attracted to the ability to target certain populations among a sampled population that would yield increased early response (consent or refusal) rates. This would allow resources to be more appropriately allocated and finely tuned to illicit response out of late-responding individuals who may warrant different marketing strategies. While we see merit in the suggestion to separate late and non-responders, we feel this would stray from our initial objective of gaining insight into characteristics of early responders. Furthermore, information regarding the differences between overall responders and non-responders can be found in our manuscript titled, “Enrollment in the Millennium Cohort begins a 21-year contribution to understanding the impact of military service,” which is currently in press with the Journal of Clinical Epidemiology. However, we have included the numbers of late refusers, non-responders, and consenters into the first paragraph of the results section.

2. I disagree with the statement in the second sentence on page 5 that offering incentives and utilizing reminders to improve response are often unsuccessful. Most survey research studies of incentives included in mail surveys have found that incentives do increase response rates. Response does vary by the type of incentive. Other studies have reported that reminders have also increased response rates.
Current Index to Statistics is a good resource for locating these papers. Some can even be found using “Google”.

The reviewer’s point is well taken and we agree that incentives and reminders can be useful mechanisms for increasing response. However, data from the pilot study of the Millennium Cohort suggest otherwise in our target population. Using multivariable logistic regression modeling, we found no significant difference in response rate based on the presence or absence of a nominal incentive offered up front, or the type of incentive that was received.

To clarify our message, we have revised the text (page 5, paragraph 1).

3. I found it interesting that this study allowed respondents to complete the questionnaire on a website. Offering multiple ways of responding to surveys is a very timely subject and more information about this would be of great interest to survey researchers. How many people completed the survey on the web? How did their characteristics compare to those who completed the survey by mail? I was also interested in the option of refusing via e-mail and wonder how many people did this. The authors make a good point that allowing people to refuse via e-mail may identify refusers early in the study and reduce cost of reminders and reduce annoyance to responders who will ultimately refuse. I wonder if this option makes it too easy to refuse, and if some of these refusers may have responded with reminders.

We agree with the reviewer and have a dedicated project investigating this information. This manuscript is currently in internal review.

We sincerely appreciate the opportunity to respond to the reviewers’ comments and we feel the revised manuscript has been greatly improved based on this review. We hope this manuscript is worthy of publication in BMC Medical Research Methodology.

Please contact me with any questions.

Respectfully,

Laura Chu

Laura K. Chu, MPH
DoD Center for Deployment Health Research
Corresponding Author