Reviewer's report

Title: Threat-Responsiveness and the Decision to Obtain Free Influenza Vaccinations among the Older Adults in Taiwan

Version: 1 Date: 6 January 2009

Reviewer: Mary Patricia Nowalk

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Major Compulsory Revisions

I enjoyed reading this manuscript which was, for the most part, clear and easy to follow. However, I believe that it will require some revisions before it is ready for publication.

1. Background, paragraph 3, sentence 1 is not at all informative and requires more detail. The subject of threat responsiveness is not carefully reviewed nor explained. This is particularly important because it is a major aspect of the hypotheses. Secondly, the paragraph inconsistently uses terms that presumably all mean threat responsiveness. This should be corrected. In fact, throughout the paper, clarity would be improved by consistent use of terms.

2. Methods: There are several places in the methods where use of different words would improve clarity. Were the data scrambled or were they deidentified? What is a flu-like health care service? Do you mean health care services for flu-like illness? Third paragraph, do you mean immunization deficiency or immunodeficiency?

3. Results: The first paragraph is unnecessary and does not add to the paper. Paragraph 2, sentence 1 does not lead in to sentence 2. I suggest eliminating it or moving it to the place where you are discussing vaccinated vs. unvaccinated findings/comparisons.

4. Results: Were statistical comparisons made among the three years for vaccination rates? Same paragraph, I do not think it appropriate to state that most people "preferred" clinics etc. without knowing the location or accessibility of those types of medical centers. They are simply the places where treatment was sought. This is seen on page 8 as well.

5. Results: I am not sure that I agree with the methods for examining regression. In general this is the weakest portion of the paper. Variables that are significantly different between vaccinated and unvaccinated individuals at some predefined significance level should be put into a multivariate regression all together, not separately with controlling for just some of them (age, gender, chronic disease, medical center, region, year) as it appears that you have done. For example, Table 1 should show significance testing for differences across groups. Then those variables that differ (and any a priori variables of interest) should be entered into regression analysis to determine the best overall predictors of vaccination.
Another question of interest is whether the total number of outpatient visits for the interim and last season were related to vaccination. The same holds for total hospitalizations.

6. Discussion: Again, please use consistent terminology for threat responsiveness throughout the paper.

7. Discussion: Paragraph 2 This should be the third topic of the discussion. and should be highlighted because you got your strongest relationship between previous vaccination and subsequent vaccination. The conclusions should reflect this as well. However, the discussion may change based on recommendations in #5 above. It may be that if all other relationships between variables and vaccination become insignificant when combined in a regression with previous vaccination, that you would separate the two groups (those with previous vaccination and those without) and examine the threat responsiveness.

8. Tables: Table 1 is too crowded. I suggest including only the percents in each cell because you have provided the total n and readers can do any calculations if desired, percents can be rounded to 1 digit after the decimal point. If multiple comparisons are performed, be sure to adjust significance levels accordingly.

9. Table 2 will change if regression is performed differently.

**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 have received grant funding from Merck & Co Inc and MedImmune Inc for projects that I believe have no bearing on this project or manuscript.