Author's response to reviews

Title: Supplier-induced demand for psychiatric admissions in Northern New England

Authors:

Bradley V Watts (bradley.v.watts@dartmouth.edu)
Brian Shiner (brian.r.shiner@dartmouth.edu)
Gunnar Klauss (gklauss@wfubmc.edu)
William B Weeks (william.b.weeks@dartmouth.edu)

Version: 3 Date: 22 July 2011

Author's response to reviews:

July 22, 2011

Dear Dr. Alam,

Thank you for your continued consideration of our manuscript (MS: 1634878393498515; Supplier-induced demand for psychiatric admissions in Northern New England) for publication in BMC Psychiatry. We appreciate the reviewers' careful examination of our resubmission and have responded to their concerns below.

Sincerely,

Brian Shiner MD, MPH

Reviewer: Dr. Wierdsma

Concern 1: In Figure 1 ranges vary from 1.4 to 4.1; perhaps different categories could change the pattern and reveal high admission rates in Maine, mixed rates in Vermont, and low rates in New Hampshire. I would be interested to know whether changing these ranges has any effect (does a Kruskal-Wallis test indicate no differences between states?)

Response 1: Categories in figure 1 were determined by natural breakpoints, resulting in 5 groups. Developing categories using continuous variables always involves some degree of choice. As readers can see from either figure 2 or table 2, there are not always obvious breakpoints. We elected the method most often used in the Dartmouth Atlas, using breakpoints resulting in balanced groups except in the case of extreme data. We considered creating categories with the same variance (2.2 admissions/10,000) based on reviewer comments. This results in little difference; 3 "yellow" categories become light green. In the end, this is a descriptive rather than statistical method (the Kruskal-Wallis method is not employed) and we believe we have provided sufficient information to readers
to draw their own opinions.

Figure 2 too me is still misleading if it plots a linear regression line whereas the data were analyzed with rank correlation.

Response 2: The trend line plots a correlation rather than a regression. There is nothing in the figure or the text to suggest that a regression was performed.

Reviewer: Dr. Lewin

Concern 1: The authors did not respond to this previous suggestion, and they might like to re-consider it: "5. Possible additions to Table 2. The authors might also like to consider adding a couple of extra columns to Table 2 – the total number of psychiatric beds for each PHSA, and the corresponding bed availability rate per 100,000."

Response 1: We believe that the core finding of this work is the relationship between psychiatric admissions and bed availability. We feel the best way to display this finding is with the correlational scattergram in Figure 3. This figure contains information regarding the psychiatric admission rate per 10,000 and the psychiatric bed availability per 100,000 for each PHSA. To add this information to table 2 would be redundant.

Minor Issues – these have been corrected in the manuscript:

- End of second paragraph in Background: Did the authors mean "compressive" or "comprehensive"?
- Last paragraph in Background: Change "positive" to "positively" correlated …; and insert "health" into "mental care".
- First sentence of Results: "22,502" is reported in the text and "22,503" in Table 1.
- Second last sentence before Conclusions: Did the authors mean "met" or "meet" patient preferences?
- Last paragraph in Conclusions: Insert "of" into "examination longitudinal"; and delete "by" in "through by which".