**Author's response to reviews**

**Title:** The relationship between baseline Organizational Readiness to Change Assessment subscale scores and implementation of hepatitis prevention services in substance use disorders treatment clinics.

**Authors:**

Hildi J Hagedorn (hildi.hagedorn@va.gov)
Paul W Heideman (paulwheideman@gmail.com)

**Version:** 5  **Date:** 12 May 2010

**Author's response to reviews:** see over
Thank you very much for the second round of reviews of my manuscript titled: "The relationship between Organizational Readiness to Change Assessment subscale scores and implementation of hepatitis prevention services in substance use disorders treatment clinics".

Below, I have provided detailed responses to individual reviewer comments:

**Reviewer: Ann Chou**

**MINOR COMPULSORY REVISIONS:**

**BACKGROUND:**
- The BACKGROUND section has been substantially condensed to focus the reader on the main purpose of the study. The discussion on the ORCA has been substantially reduced and the majority of this information has been moved to the MEASURES section. The description of the Liver Health Initiative has been condensed and moved to the MEASURES section.

**METHODS**
- The description of the facility complexity measure has been expanded to clarify that the complexity levels were assigned to VA medical centers by the VA based on the VA Facility Complexity Model. The complexity level measure was not created by the authors of this paper. References were added for the methodology used by the VA in the creation of the VA Facility Complexity Model. An explanation was also provided for the splitting of group 1 into sub-cATEGORIES A, B, and C.

**Reviewer: Melissa M. Farmer**

- As mentioned above, the BACKGROUND section has been substantially condensed. The detailed summaries of the Weiner literature review and the Helfrich paper on the ORCA have been substantially reduced to highlight the main conclusions/results of these papers. The METHOD section has also been reviewed for redundancies which have been removed.
- The sample size has been clarified (see page 7). We apologize for the oversight that it was not mentioned in the previous version that one of the nine implementation team leaders neglected to complete the ORCA Context subscale items. Therefore, nine clinics have full baseline data on ORCA Evidence scores but only eight clinics have baseline data on the ORCA Context scales.
- Additional footnotes have been added to Table 3 to clarify the definitions of Complexity Level, Intakes, and Total Patient Census.

**Reviewer: Martin Charns**

1. We deliberated extensively as to how to group our nine participating clinics for this study. We considered using change in implementation score from baseline to follow-up as suggested by Dr. Charns as a more accurate measure of actual implementation during the intervention period. However, we opted instead to look only at the follow-up implementation score for several reasons. We thought that it was inappropriate to categorize the two clinics with high implementation scores at baseline as "low" implementers. This somehow suggests that they are deficient when in fact these clinics were able to implement innovative practices available in very few SUD clinics within VA prior to participation in a formal implementation intervention and they were each able to add one additional service making them two out of only three clinics that
implemented virtually the entire LHI package. As pointed out in the manuscript, in retrospect we should have used the baseline implementation measure as a screening device to screen out those clinics that did not need the assistance of the full LHI program and we plan to do so for future programs. We also considered creating three groups, e.g., low implementers, high implementers, and those that were high implementers at baseline, or simply dropping the two baseline high implementers from the sample. However, the obvious downside with this plan was that it reduced an already tiny sample size by almost one quarter. In the end, we decided that the two programs that were high implementers prior to the program had more in common with those programs that were able to implement services during the LHI program. We have added some discussion in the manuscript regarding this decision process (see page 19).

2. We performed a series of non-parametric comparisons (Mann-Whitney U), converting the resulting z statistics into Cohen's d. We found that the effect sizes were approximately the same with one notable exception; the effect size for General Resources was only .42 for the non-parametric versus .94 for the parametric comparison. All other effect sizes remained in the same range (i.e., large effects were still large).

3. While objective data regarding the routine implementation of LHI practices was not available (e.g., rates of testing for hepatitis C), team leaders were asked about the structures and procedures that were added to ensure that these services were available to all patients. Even under ideal circumstances it is likely that these services reach most rather than all patients. Clearly some of the eight LHI recommendations involve a substantially greater amount of work and participation from a greater number of staff members to implement. A team with lower organizational readiness to change may still be able to implement some of the "low hanging fruit" without substantial input or effort from staff beyond the implementation team. While the bar for "high implementation" was set based on a median split and, as pointed out in the paper, may seem quite high, this high bar also creates a requirement that the teams had to tackle at least one of the more difficult recommendations to be considered a high implementer. We added this point to the manuscript (see page 20). It is beyond the scope of the current paper to assess how the ORCA scores related to each individual practice recommendation.

4. The ORCA scores are only one source of data that will be helpful for explaining the varying outcome across clinics following participation in the LHI program. A full evaluation of the LHI program, utilizing both quantitative and qualitative data is under preparation. The purpose of the current manuscript is to assess whether the ORCA may possibly have utility for predicting implementation success. We understand, and detail in the manuscript, the deficiencies with this study and have been careful not to overstate the meaning of our results (see page 20). We put them forward as preliminary and present our difficulties and lessons learned in the hopes that this information will assist in assuring that future investigations will be more rigorous.

Because the majority of changes to the manuscript included cutting or moving text, I did not use "track changes" because it became much too cluttered and lengthy. Rather, text that was added to the revised manuscript is highlighted.

I look forward to hearing from you in regards to this revision.
Sincerely,

Hildi J. Hagedorn, PhD, LP
Implementation Research Coordinator
Substance Use Disorders QUERI
Minneapolis VA Medical Center
One Veterans Drive (116A9)
Minneapolis, MN 55417
Phone: 612-467-3875
Email: hildi.hagedorn@va.gov