Author's response to reviews

Title: Organisational development, sustainability, and diffusion of innovations within hospitals participating in a multilevel quality collaborative

Authors:

Michel LA Dückers (m.l.duckers@amc.uva.nl)
Cordula Wagner (c.wagner@nivel.nl)
Leti Vos (L.vos@nivel.nl)
Peter P Groenewegen (p.groenewegen@nivel.nl)

Version: 3 Date: 21 May 2010

Author's response to reviews: see over
Dear Dr O'Connor,

Thank you for giving us the opportunity to submit a revised version of manuscript 1875034961332544. In the revision note you will find our reaction to the various points raised by the reviewers. The most important and fundamental change is that we followed the advice to split the manuscript in two. The current paper describes, as reviewer 1 suggested, the methods to sustain and disseminate improvements. Although we had good reasons for combining this material together with quantitative analysis into one integrated article, we must admit that a more straightforward and focused paper resulted from the revision process. It is likely that we will write an additional manuscript based on the quantitative analyses and their implications.

We want to thank both reviewers for their valuable input and would be pleased if you are willing to consider the revised manuscript for publication in Implementation Science.

Yours faithfully,
On behalf of my co-authors

Michel Dückers

REVISION NOTE

Reviewer 1

1. Is the question posed by the authors new and well defined?

The questions posed by the authors are not new, but have not been adequately addressed by the literature—to my (admittedly probably out of date by now) knowledge. Care should be taken when categorizing this paper in terms of contributions to the QI literature. The paper describes how MQC hospitals sought to sustain and disseminate improvements made and quality methods used. Though there was training in “quality methods and change ideas” and seemed to have been some efforts by the staff at the hospitals’ to truly understand their key quality challenges, it was not clear to me that the teams did any innovating (sometimes called “deep diving”) prior to their “Plan” step. Improvements were made by sharing, adopting and spreading simple and complicated best practices, but not complex systems changes. In some cases, the projects that were spread were “selected.” I would like to know how this impacted their choice of success relative to the innovations that were generated as a result of a goal. It is still a valuable evaluation of the process of implementation and spread and the lessons, particularly related to the (what many perceive to be burdensome) measurement are useful to the field. A manager seeking to discover how to structure and support his/her organizations quality improvement initiatives to minimize expenditure and maximize impact would learn from this paper.

2. Are the methods appropriate and well described, and are sufficient details provided to replicate the work?

The methods are well described and are appropriate to the first stated task: to describe how the hospitals sustained and disseminated their improvements made. I may have missed it, but saw no description of the fixed effects analysis and its implications for the findings. I think a fatal flaw of the quantitative analysis (as is noted in the authors’ limitations section) is the fact that they are not able to rule out that their results may be explained by the fact that QI projects that are easier to implement are simply easier to disseminate and spread as well.

3. Are the data sound and well controlled?

The qualitative data are very interesting. I especially appreciate that the authors’ captured and
relayed the challenges with implementation. For the quantitative work, it would have been helpful to have been able to have controlled for level of difficulty of QI project. the sample size is too small for the quantitative work to produce definitive causal results. I would suggest that the authors divide this paper into two. One that addresses the question of which methods worked well to sustain and disseminate improvements and one to examine the link between early successes and future spread. I would further recommend only seeking to publish the qualitative results, using the quantitative data for hypothesis generation for future study. I am curious to know how the authors measured “level of ambition”

4. Does the manuscript adhere to the relevant standards for reporting and data deposition?
   Not sure.

5. Are the discussion and conclusions well balanced and adequately supported by the data?
The results accurately reflect the findings: first year qic projects with at least a 10% improvement were disseminated more often than those without 10% improvement…the results cannot say whether the impact was causal or if this is a correlation associated with ease of implementation..

6. Do the title and abstract accurately convey what has been found?
The conclusion doesn’t fully reflect all the (quantitative) results.

7. Is the writing acceptable?
   Yes.

Reaction: Based on the comments provided by reviewer 1 we substantially altered the manuscript. In comment 3 it is suggested to ‘divide this paper into two. One that addresses the question of which methods worked well to sustain and disseminate improvements and one to examine the link between early successes and future spread.’ This is exactly what we did. The quantitative material has been removed, resulting in a more compact and focused manuscript. This decision, makes it unnecessary (for today) to respond to comments 2, 4, 5 and 6. These comments are, nevertheless, as well as the question about measuring the level of ambition (comment 3), relevant for the additional paper we consider to write based on the quantitative material. In relation to comment 1 we want to emphasize our agreement with the reviewer that it is interesting to explore the relation between the extent to which projects are selected and the level of success. Unfortunately we do not have the right data to test a hypothesis that self-selected projects (intrinsically motivation) lead to better results.

Reviewer 2

Thank you for the opportunity to read this interesting manuscript. Overall I consider the paper relevant and well written and would recommend publication. However, before acceptance the following issues should be addressed.

Minor Essential Revisions

1. The paper addresses two objectives, the first one being examined using qualitative methods, the second one being addressed quantitatively. The study questions and methods are appropriate; however, the overall presentation of the manuscript is not well balanced. The introduction and methods take too many words before getting to the results section. Although the length of the manuscript is not a cost-issue in an online journal, manuscripts should follow the same standards in terms of conciseness as manuscripts submitted to print journals.

Reaction: Our decision to split up the manuscript resulted in a significant reduction of the text in the methods and results sections
2. Methods: a range of data sources is used (interviews, questionnaire, central database). The questionnaire that is mentioned here should be described in more detail and referenced.

*Reaction:* In the description of the questionnaire (comment 2) we now explain that the questionnaire is about system and process characteristics of systematic quality management in relation to the MQC’s L&O programme; i.e. the nature of performance contracts, the quality criteria that units need to meet, indicators in the management information system, and performance feedback frequency. These characteristics are to been seen as an addition to the measuring instrument used in the evaluation study we referred to in the study objective sub section. A detailed description of the questionnaire can be found in another publication (reference 9).

3. Analysis: "Interviews provide the narrative data surrounding the questionnaires" - this statement should be expanded and explained in the methods section.

*Reaction:* The following text is added in the result section in order to expand and explain the statement: ‘The questionnaire shows that several system and process characteristics for systematic quality management are in place. Next, the interviews provide the narrative data needed to conceptualise how the strategy for dissemination and sustainability depends on these elements’. The methods are expanded as well.

4. Results: the use of log-transformed and non-transformed data is confusing. Data should be refered to as it appears in the table.

*Reaction:* The section with log-transformed/non-transformed data is no longer part of the paper.

5. Parts of the text read at times long-winded and should be shortened, tightened up and expressed more concisely.

*Reaction:* We tightened up the text in various (sub) sections: methods, results, future research and limitations.

6. The section on page 5 "The typical team ...." reads a bit mechanical. The readability of the section on the work of different teams might be improved using bulleted points.

*Reaction:* we used bulleted points in the section on page 5 as suggested by the reviewer.

7. The presentation of qualitative results should be improved and presented more clearly according to themes emerging from the analysis. The figure presented here does not seem to be a direct result of the interviews and might better be referred to in the discussion section.

*Reaction:* We considered the suggestion and examined the text and made some adjustments to improve the structure and the readability. Still, we decided to leave the core of the existing structure and the reference to Figure 1 in the results section intact. Our reason for this is that we believe that the current sequence, supported by the Figure, is the best step-by-step way to make the reader understand the strategy for dissemination and sustainability step by step.

8. The discussion sections refers to the lack of control group to control for other factors that affected outcomes. Could the multi-level analysis account for some additional factors to improve robustness of the analysis?

*Reaction:* The multi-level analysis (incl. issues of robustness) are no longer part of the paper.