Reviewer's report

Title: The Impact of Chronic Disease Self-Management Programs: Healthcare Savings through a Community-Based Intervention

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Reviewer: Duncan Maru

Reviewer's report:

1 Sept 2013


To the BMC Public Health editorial staff:

Thank you for giving me the opportunity to review this excellent manuscript. Please see my responses to the editorial staff’s queries below.

1. Is the question posed by the authors well defined?
   - Yes, it appears as if the question is well defined, addressing the issue of: how can this public health intervention, the CDSM, avert visits to emergency rooms and hospitalizations for people with chronic diseases? It addresses a problem that was studied acutely in a more long-term capacity. It also critically draws into question the policy impact of scaling up the usage of such programs.

2. Are the methods appropriate and well described?
   - The methods are well-described. There are limitations, but the authors do a reasonable job of not overstating their case. It appears that the authors are trying to establish cause and effect on a large scale; you enroll in a CDSM program and then measure, over time, number of ER visits and hospitalizations. The gold standard would seem to require a comparison group that did not use the CDSM program. A prospective study would be necessary and that you would want to measure ER visits/hospitalizations over potentially a longer study frame than six months.

   - Part 6) of their methods is extrapolating their results to the national level using census data. I’m not sure you can simply amplify your data and assume that because these study participants had x number less hospital visits and y number savings that the whole nation would have similar experiences. While they did account that their program might only reach 5% of the population, I’m not convinced that the savings would be equal for everyone. It would be worth reviewing this to ensure that the methods and results are described in a measured way that does not over-state the case; the authors are certainly not deliberately over-stating, but one more read through to ensure caution is warranted.
- They detail out how they will examine hospital utilization and because there is a decrease in usage (according to the data from the study), there is a subsequent cost savings, and a savings even after factoring in the cost of participating in the program. It would be nice to have methods that delineated/aggregated between people with a certain chronic disease or of a certain geographical area. It seems like their methods only incorporate the overall averages. If this is not available or feasible, that is okay.

3. Are the data sound?
- The data are fundamentally sound. A few additional analyses could be pursued if possible, as we describe below.
- It would be nice if they can aggregate their data by a particular chronic disease, by a particular geographic area, or by people who have multiple chronic diseases versus just one chronic disease.
- They mention that there is a significant decline in ER visits at the 6 month mark (5%), yet there are no statistics to demonstrate its significance. They also did not say there was a significant decline in hospitalization visits at 6 months (3%); is there a threshold that makes this significant versus not significant? What were the actual statistical calculations used to determine this- not mentioned.
- Also, can we attribute a reduction in ER visits/hospitalizations to this CDSM program? I’m sure this was the subject of the RCT, but it seems to me like there could be many factors at play here and confounding variables are not addressed. This is a limitation worth discussing.

4. Does the manuscript adhere to the relevant standards for reporting and data deposition?
- The manuscript is professionally written.

5. Are the discussion and conclusions well balanced and adequately supported by the data?
- There could be a greater emphasis on the policy implications of CDSM due to its apparent ability to cut costs to the individual and to the health institution.

6. Are limitations of the work clearly stated?
- There

7. Do the authors clearly acknowledge any work upon which they are building, both published and unpublished?
- Yes and considering that one author, Lorig, receives benefits from the sale of her book on CDSM, there is a strong incentive to portray CDSM in a positive light.

8. Do the title and abstract accurately convey what has been found?
- Yes

9. Is the writing acceptable?
- Yes, very clear and easy to read. Very accessible to all readers.

**Level of interest:** An article of importance in its field

**Quality of written English:** Acceptable

**Statistical review:** No, the manuscript does not need to be seen by a statistician.

**Declaration of competing interests:**

I declare that I have no competing interests.