Reviewer’s report

Title: Who gets a family physician through centralized waiting lists?

Version: 2  Date: 17 October 2014

Reviewer: Erin Strumpf

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Numbered comments refer to my previous review, any new comments are lettered.

1. Instances of inappropriate causal language still appear: “analyze their impacts on stimulating family physicians’…” (5); “The new financial incentives led to a marked increase…” (16) are at least two examples. Please review the text carefully and make the necessary changes.

5. Despite some clarifications that you added, this is still confusing. I am trying to understand how many observations you have in the dataset, that is, how many rows. You state in several places that the data are aggregated across the entire province (i.e., you don’t observe any characteristics of individual patients) so that certainly means you do not have a database where n=494,199. You also don’t have (I don’t think) a database where n=87 GACOs, if the data are aggregated across these regions. You should remove all instances of n=494,199 and n=87. You can say that the database reflects the 494,199 patients enrolled in 87 GACOs across the province, but saying “n=” means that you have that many observations, which I’m pretty sure is not correct. You should also change “…based on the entire data set of a population of almost 500,000 persons…” on page 19, as it is also misleading. This is related to comment #6, where I asked about the level of analysis, which I meant to connote the level of the observations. I understand that what you see in your data is the aggregate number of patients referred, but for what geographic/time/patient category unit? Is it QC per 25 days per vulnerable vs. not vulnerable, suggesting about 1*65*2=130 observations?

8. Table 1 is still inadequate. That the numbers are (I think) means with confidence intervals in parentheses is not specified anywhere. The Ns provided in the table suggest you have a database with 74017 + 33083 + 116119 + 271478 = 494697 observations. Is this correct?? Based on my comments under #5, I don’t think it is and needs to be corrected. I don’t know what “mixed regression models for repeated measures” means. “Mixed model” is too vague and needs to be more specific (linear, logistic, Poisson,…?).

9. I don’t understand your response to this comment. Your response refers to alpha=0.05 whereas my question was about the p<0.001. In any case, it is still not clear in the main text whether this p-value refers to the change for non-vulnerable patients, the change for vulnerable patients, both, or something else altogether.
A. “All provincial data analyzed were anonymized.” This is a strange comment, as it implies that you have individual-level data where ID numbers, names, or other identifying information has been removed. But this is not the case, and in fact you have aggregated data at the provincial level. Wouldn’t it be more appropriate to say “All data analyzed are aggregated to the provincial level”? Similarly, “the profiles of patients are based on standard inclusion criteria” is also somewhat awkward, as you haven’t discussed inclusion criteria anywhere else in the paper.

B. “Regressing the number of patients referred for indicators of vulnerability….” The word “for” should be replaced with “on”.

C. “There was no control…” should read “There were no control variables…” or alternatively the regressions could be described as univariate.

D. There is virtually no explanation or discussion of the results in Table 1. The statistical significance of changes is not the only important thing, since even very, very small changes can be statistically significant. The actual magnitudes of the changes are also crucial to report and discuss. Please add a few sentences to explain what we see in Table 1. I also don’t understand what “Alpha = .05” means in this context.

E. Each of the 3 figures shows the trends in the number of patients referred, while the text discusses the trends in terms of percentages. While I find the percentages helpful in understanding what’s going on, they also obscure the fact that the overall numbers of patients referred are increasing over time. I think it would be helpful to add a sentence or two for each figure that describes what we see in the graphs in terms of raw numbers, before presenting the percentage results.

F. “They also raise important questions about the organization of the healthcare system…” (14). I’m not sure what you’re alluding to here. I suggest you be more specific or remove this allusion.

G. “The GACO policy may be seen as an opportunity to formally enroll patients that have been followed through GACOs.” (16) This phrasing is difficult to follow. I suggest “The GACO policy may be seen as an opportunity to formally enroll patients who were already being followed without formal enrollment.”

H. Regarding what you call physicians’ “preference” for enrolling non-vulnerable patients: This is not really evidenced by the fact that they enroll more non-vulnerable than vulnerable patients in the “after” period, since it’s perfectly feasible that non-vulnerable patients are much more prevalent in the pool of unattached patients. The stronger evidence comes from the switch from the before to after periods in the shares of vulnerable and non-vulnerable patients enrolled. It is of course still possible that the mix of these groups in the population of unattached patients changed markedly at the same time, but this is pretty hard to believe. If you explained this a little more thoroughly (on pages 16-17, for example), I think you would make your case stronger.
I. The “forbidding self-referral” section title is awkward, given that you don’t really address this at all in the three-sentence section that follows. Maybe it’s worth discussing what has been done in this respect in QC and what you expect to see from that policy change?

**Level of interest:** An article of limited interest

**Quality of written English:** Acceptable

**Statistical review:** Yes, and I have assessed the statistics in my report.

**Declaration of competing interests:**

I declare that I have no competing interests.