Reviewer’s report

Title: The Impact of the Adoption of a Patient Rostering Model on Primary Care Access and Continuity of Care in Urban Family Practices in Ontario, Canada

Version: 0 Date: 02 Dec 2018

Reviewer: Steven Trankle

Reviewer's report:

I would like to congratulate the authors on a well-designed study that conveys interesting findings of international relevance given the important primary care transformations that are currently being implemented around the world. It is interesting to note the counterintuitive results to care continuity that rostering and a different funding structure provides and these are of importance in better understanding systems change that include more effective and economical patient care that also reduces unnecessary hospitalisations. I also see this study showing a collaborative/team work approach (when doctors are working in groups) which, although not evidenced by the results, could be expected to increase continuity if they are working at "integrating" care that is so often disjointed - especially for those with complex chronic conditions. It is also good that you have attempted to define "continuity" in terms of a single provider and from a whole of practice perspective-this is important.

As I read through the article, there are some points which I feel need to be considered. These include further clarifying some areas given the international and diverse readership of this journal especially when current efforts to transform primary (and secondary) care includes administrators from non-clinical and non-academic backgrounds. There is also some additional referencing needed in places.

Page 1 (background page). Please provide references at line 5, line 7 and line 9

Page 2 (methods page). Lines 37-38 you note that some physicians working under eFFS later implemented a payment capitation model. You then note later on page 5 lines 120-121 excluding practices from the analysis that transferred out of the eFFS model. Does this include those practices? My reading on page 2 leads me to assume that some practices might have been operating under two models and you state…”the sequential adoption of features provides an ideal setting to examine the independent impact of rostering on access and continuity". You provide a table of the different models but capitation models were not part of your design or objectives. It would be good to clarify this upfront on page 2.

Page 3 line 50 -52 please include ethics approval numbers

Page 4 line 77-81 and 83-85 I note you talk about the "Ontario Health Insurance Program" and "the Registered Persons Database" - do any of these also capture the rostering information? If so,
a small sentence to that effect is helpful. Page 5 lines 104-111 I can see that you talk about CAPE identifying rostered patients for eFFS but not tFFS so you use the "virtual attribution method". This needs referencing (from primary source) and a little more clarifying to justify. Some of this justification is in strengths/limitations but should be presented earlier.

Page 5 line 107 please clarify first use of acronym CAPE

Page 6 line 127. Please add what a high/low percentage means for UPC (e.g. higher = > continuity)

Page 6 line 132 You talk about coordinating specialists- does this also include allied health (especially given potential multi-morbidity of chronic illnesses)? Should be stated

Page 7 line 151-152 Please check sentence expression

Page 7 lines 164-165 you talk about specific impacts noted in various studies (access, continuity, and specialist referrals) - a reference for each is needed here.

Page 7 lines 168-170 you talk about some patients not opting to formally roster with transitioning physicians but you keep these patients in the "main analysis". Why? Do you mean they were included as tFFS patients? I find this a little unclear.

Page 8 line 174 do you mean "late" adoption here?

Page 8 line 181 does "panel size" equal patient cohort? Please add explanation for the wider readership as this term is used elsewhere also.

Page 9 lines 196-197 UPC index was higher for providers that were male, Canadian trained, had larger panel sizes, and more years since graduation and for patients that were male, older, and healthier. Lines 204-206 RI was higher for providers that were male, Canadian trained, had larger panel sizes, and more years since graduation. Authors point out these findings but I am not clear whether these refer to tFFS or eFFS. I also think this is worthy of "discussion" now that they have been presented even though these were not the primary variables of interest.

Page 10 lines 230-232 Given the counterintuitive results, it is interesting to note that group level continuity post-transition during the year 2013 improved with UPC 5.5% higher than the provider level continuity for that year. I note that data for this comparison is not available (stated here and at limitations) for tFFS practices. I would have flagged such an investigation for future work from this study, as this could provide even greater evidence for or against eFFS. You also correctly point out according to literature that the few studies examining this still found higher UPC with providers than practices. This may be different with different models of care in different health systems as you are certainly aware. Our experience in Australia with current (piloted) primary care transitions to the patient centred medical home (PCMH) model, using a capitated payment structure, has enhanced continuity and outcomes for registered patients by
removing care fragmentation. PCMH is a collaborated approach with multiple providers within (or linked to) a practice.

Page 12 lines 286-290. Please note figures 1 and 2 again here for the reader to quickly reference these findings (as the "increase" in UPC and RI at point of transition was not mentioned in results).

Page 14 lines 334-342 (strengths/limitations)- authors point out decreasing UPC and RI due to practitioners sharing patients. They somewhat allude to examining this in future practice level research in terms of the impact rostering has on continuity - very important given continuity, coordination and access are the primary outcomes of interest. There may be other dynamics playing out here which in future research would need to be carefully considered. Continuity could certainly suffer if patients are being shared independently with no coordinating approach but it is also possible that sharing patients could actually increase continuity when physicians are working collaboratively in groups and sharing patients among themselves with the aim of better integration and coordination of care. This may also enhance access to care (less delay).

*Are the methods appropriate and well described?*
If not, please specify what is required in your comments to the authors.

Yes

*Does the work include the necessary controls?*
If not, please specify which controls are required in your comments to the authors.

Yes

*Are the conclusions drawn adequately supported by the data shown?*
If not, please explain in your comments to the authors.

Yes

*Are you able to assess any statistics in the manuscript or would you recommend an additional statistical review?*
If an additional statistical review is recommended, please specify what aspects require further assessment in your comments to the editors.

I am able to assess the statistics

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