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Title: The number of family physicians and service provision in Ontario and Alberta

between 2005/06 and 2017/18: a cross-sectional study

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Reviewer 1: Dr. Ian Scott

Institution: University of British Columbia General comments (author response in bold)

Thank you for doing this important work. The article is clearly written.

I have a few comments for your consideration

Interpretation

1. Does the consistency of results between Ontario and Alberta, with different payment schemes being predominant in each province, point to a kind of validity of your methodology?

We have completed a comparison of the two provinces and applied the service day methodology in a separate collaborative analysis and found the two provinces to be very similar, despite the difference in payment models.

- 2. Line 204--it may also be worth mentioning complexity of patient care as an additional driver as there are now ~2000 accepted guidelines in Canada--many purported to be relevant to primary care. In addition, aging patient population also adds to greater complexity. Both general complexity increase, and aging patient population likely generate more non-patient care activities that may reduce measured service provision **Please see Limitations section Pg 12-13.**
- 3. In the Interpretation section (if there is word availability), it would be nice to see how other measures that you mention in the introduction (head count FTEs and voluntary survey data) during the same study period compared to your actual measures of service work from the data on service provision that you have done

The comparison of our service day methodology and FTE (using the CIHI Income Percentiles Methodology to calculate) has already been published by McDonald and Green (it is referenced within this work), space has limited to include in this analysis but, will be considered as later validation study of services day methodology (Our preliminary analysis as noted in 1. has been favorable to support some level of validity).

Reviewer 2: Dr. Maude Laberge

Institution: Universite Laval Faculte des sciences de l'administration

General comments (author response in bold)

The study describes the volumes of family physicians' activity in Alberta and Ontario over time.

- 1. There is no justification as to why these two provinces were selected.

 Please see 1. Response to Editor. Please also Introduction Lines 82-86.
- 2. Authors define thresholds for activity levels to include physicians but do not explain the rationale for these thresholds. They also consider a number of days worked per year

that also seems arbitrary. What if a physician had a leave of absence in the given year (sickness, parental leave) but still meets the threshold?

Thresholds / cut points are available upon request. The service day methodology applied in this analysis has been been previously published in 2021 in CMAJ-open (McDonald et al.)

3. The study is descriptive with little to no analysis. Were there any hypotheses that authors were interested in testing?

Additions have been made to the Introduction to address.

4. We observe variations but there is not much interpretation that could explain the results.

Please see Edits to the discussion and additions to the results section.

- 5. In Ontario, there were important reforms of primary care during those years, but these do not seem to be considered, nor the type of setting in which physicians practice. Notably, the introduction of capitation payment is likely to have led to a decrease in services but this may not be negative if patient care is coordinated and unnecessary visits (such as for negative test results or prescription renewals) are avoided and care is delivered differently (ex: prescription renewal sent directly to patient's pharmacy).
- 6. Overall, I am not sure about the value of this manuscript, as written, to inform health planners and decision-makers.

Our Team extends their thanks for your opinion, we have worked diligently to make work meaningful for health planner and decision makers alike and highlight the service day methodology to offer an enhanced understanding of the workforce and their provision of care services.

Minor typos:

7. p6, l97: extra letters and space

8. p12, l222: extra words

Edits have been made to these items.