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Title	Regional variations of care in home care and long-term care: a retrospective cohort study
Authors	Paul C. Hebert MD MHSc, Anne Morinville PhD, Andrew Costa PhD, George Heckman MD, John Hirdes PhD
Reviewer 1	Larry Chambers
Institution	Elisabeth Bruyere Research Institute, Ottawa, Ont.
General comments (author response in bold)	<p>Comments to the Author</p> <p>With Ontario, British Columbia and Alberta all using data collection instruments that permit comparisons across these provinces, the study was able to compare the care of people who have used the health care services between Ontario and the other two provinces. The population size of Ontario and the complexity of the health care system (for example, 630 long term care homes in 2018) in Ontario increases interest in this type of comparison. Alberta and British Columbia arguably have less difficulty in making important changes in their care delivery system as their health care systems are smaller and their populations are smaller significantly than Ontario.</p> <p>The authors have used state of the art statistical methods to analyze the health administrative data from the three provinces.</p> <p>Perhaps the most important take home message from this study is that after adjusting for about 20 other covariates including demographic, diagnostic, and clinical indicators, in both Alberta and British Columbia, the odds ratios for long term care admissions from home care were considerably lower than in Ontario. The authors point out that Alberta has substantially increased its emphasis on assisted living as a form of residential care, so they conclude that it is not surprising to see considerably greater odds of transfers to other care settings in that province compared with Ontario. These odds were generally lower in British Columbia which also has developed assisted living options in its communities.</p> <p>As the Ontario election has recently pointed out, the complexity of the health care system for older frail adults is beyond the understanding among most people in the population. This finding about admissions to home care being lower in Alberta and British Columbia than Ontario that can be explained by assisted living options development is unlikely to be understood in Ontario. This was demonstrated by the 10's of thousands of long term care beds to be built in Ontario as promised in the election platforms of all three of the main political parties with no mention of assisted living options development in all three platforms.</p> <p>AU: We thank you for your comments concerning our manuscript.</p>
Reviewer 2	James McDonald
Institution	University of New Brunswick, Fredericton, Department of Economics
General comments (author response in bold)	<p>Comments to the Author</p> <p>This is a very important issue and the authors have assembled an impressive multi-province dataset to help address it. Certainly there is great interest in transitions among home care, assisted living facilities, hospital and death, and the implications for patients, their families and the health system are clear. The magnitude of the differences across provinces in the presence of a wide range of possible confounding variables is both concerning and interesting, and I agree with the authors that it likely arises from system-based differences across provinces.</p> <p>That said, my main concern with the paper is that after having documented these large differences across provinces the authors spend relatively little time discussing what might be underpinning them. There is some limited discussion of the fact that</p>

Alberta has a focus on assisted living but the bigger question – why are residents in home care in AB and BC more likely than in ON to transition into hospital but long term care residents are less likely than in ON to transition into hospital – goes largely unaddressed. Other results indicate that home care residents in AB are more likely to die than ON residents but BC residents are less likely to die than ON residents. Is this because of a greater focus on keeping individuals in their homes longer in AB? The point is that with a set of interesting and important empirical results, the authors could do more to present some sort of possible explanations. It may be beyond the scope of the current paper to examine those explanations empirically but at least it would set the stage for where to go in order to unpack these results.

AU: We believe that these explanations are beyond the scope of the current manuscript, but certainly it will be important to understand the factors contributing to these differences.

It would also be worth exploring the extent to which the effects of covariates on transition state varies by province. For example, is the greater likelihood of ending up in hospital from home care for AB and BC residents consistent across different sets of controls – demographic, chronic conditions, cognition, functional living, etc? This would help illuminate possible explanations for the variation across provinces.

AU: The differences persist even when we have adjusted for numerous covariates, pointing to the provincial healthcare system being a cause of the variation.