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Title	Cost evaluation of out-of-country care for patients with eating disorders in Ontario: a population-based study
Authors	Claire de Oliveira MA PhD, Erin M. Macdonald MSc, Diane Green BSc, Patricia Colton MD MSc, Marion Olmsted PhD, Susan Bondy PhD, Paul Kurdyak MD PhD
Reviewer 1	Dr. Dan Birch
Institution	Royal Alexandra Hospital, Surgery, Edmonton, Alta.
General comments (author response in bold)	<p>Thank you for the opportunity to review this manuscript. Although this study identifies an important area of research and discussion, I think several important revisions are necessary before the authors should re-submit.</p> <p>1. To begin, the authors could give some additional background (briefly) to add context to the subject of the paper ie. what is the care these patients receive out of country, is this care offered in Canada (or not), does the expertise exist in Canada to develop the programs that are offered out of country, is there evidence to support the out of country care. Why is it that certain patients return to Canada and receive additional inpatient care and others do not, this is not explained in the paper. Is this part of an overall treatment program? If some of these issues can be clarified for the reader the manuscript will be much more understandable.</p> <p>We have provided some detail around the type of care that patients receive out-of-country. We have clarified that this type of care is not offered in Ontario, despite some existing expertise. In addition, we have provided some detail around why some patients receive additional inpatient care and others do not.</p> <p>2. I am not convinced the authors are making the most appropriate comparisons. In order to establish and compare costs of out of country care, is there an appropriate cohort of patients who have similar/comparable care in Canada? Although they include a group that has received both out of country and in country care, it is not clear if or how these costs can be compared.</p> <p>We have compared two groups of patients that have both received out-of-country care. These cohorts are quite similar in terms of their disease severity. We have excluded other patients that did not receive this care as we believe these patients would be quite different from those that did (based on disease severity).</p> <p>3. The authors mention that follow-up on returning to Canada is not well coordinated. What exactly is meant by this? Are there clinical concerns as a result of this? Does this lead to additional unnecessary costs? I would encourage the authors to deal with this issue more thoroughly, I think this would be of great interest to the reader, and may be an important component of an argument to develop specialized ED care in Canada.</p> <p>We have clarified in the manuscript that intensive out-of-country treatment is not well integrated with subsequent follow-up care. In addition, we have added that given the high risk of relapse following intensive treatment, this may contribute to poorer patient outcomes and additional treatment costs.</p> <p>4. The authors state that patients travelling out of country are more complex than patients remaining in Canada, so is an appropriate comparison even possible with patients who receive care in Canada?</p> <p>We believe that both cohorts that receive specialised out-of-country care can be compared as they are similar in terms of disease severity. We feel that it would not be appropriate to compare these patients to those that received (specialised or not) in-province care only.</p> <p>5. Is there any way to put some of these costs into greater perspective ie what percent of all out of country programs of care, or what percent of all ED care in the province, what percent of all mental health care for example, are there other programs with available costs to compare to?</p> <p>We have tried to contextualise the proportion of costs spent on this particular out-of-country program; in particular, we have compared the overall cost of this program in 2012 with the Ontario health care budget for that. Although this program represented a small proportion of that year's budget, it was still a substantial amount given that it represents costs of care for only 216 patients.</p> <p>6. The authors mention that any saved funds could be invested in a provincial program, but that would assume that investment/capital program building funds were available. A calculation could be made to determine how many years it would be before costs could be recovered by the savings when patients are no longer sent out of country. Do they think this sort of modelling is possible?</p> <p>This is only a conjecture. We cannot know this with certainty. Nonetheless, this could certainly be modelled, as suggested by the reviewer. We have mentioned this in the revised version. This would constitute future research.</p>

	Overall this is a very interesting subject and concept, but the reader is left with many questions and this limits the impact of the research. I hope the authors can consider some of the suggestions above and would resubmit their research.
Reviewer 2	Dr. Chris de Gara
Institution	University of Alberta, Department of Surgery, Edmonton, Alta.
General comments (author response in bold)	<p>The authors sought to address an increasingly prevalent problem of where provincial health care resources are insufficient to deal with a health care need. As such, province's need to resort to out-of-country expenditures to manage a problem affecting their population.</p> <p>The topic touches on the even larger issue of medical tourism where patients are seeking medical care out of country and paying out of their own pocket. Arthroplasty, bariatric surgery, transplantation (renal or stem) are all good examples. In Ontario, there were inadequate bariatric surgical system lead to huge costs to the province purchasing bariatric procedures in the US. Through sensible policy change, the need for out-of-country care was slashed and resources appropriately invested to ensure adequate care is now provided within the province.</p> <p>I have a number of questions and/or comments for the authors</p> <ol style="list-style-type: none"> Why was the timeframe 2003-2011 selected? The timeframe 2003-2011 was purely chosen based on the availability of cost data for our analysis. It is indeed fortunate that the devastating eating disorder conditions of anorexia and bulimia are relatively rare, their cohort of 286 patients or approximately 31 per year is not epidemic! Have the authors captured every patient with these disorders? We have not captured every patient diagnosed with an eating disorder in Ontario; this was not the objective of the study. However, we have captured all patients that received specialised out-of-country eating disorder care during our time period. These data were provided by the Ontario Ministry of Health and Long-term Care who funds and track these patients. We have clarified this in the revised version of the manuscript. It is unclear to the reader how the authors confirm with certainty that out-of-country patients are captured. What about those who chose to pay out-of-pocket? These data were provided by the Ontario Ministry of Health and Long-term Care who funds and track patients whose receive this care. We have clarified this in the revised version of the manuscript. We are not able to capture patients who choose to pay out-of-pocket as we do not have access to these data. We have stated this in the limitations section. It is indeed "fortunate" that these patients have relatively few comorbidities. Patients with chronic diseases such as obesity have very commonly associated comorbidities which represent additional costs to the system. Further, an important proportion of these patients receiving out-of-country care who sustain complications have additional and significant health care costs to manage complications upon returning to Canada. It is unclear to the reader whether the two groups are mutually exclusive? Do ED patients in their cohort move between in-province and out-of-country care. The two groups examined in this paper are mutually exclusive. We have clarified this in the revised manuscript. Both patient groups received specialised out-of-country care; one group has also received specialised in-province care. Both groups may also receive other non-specialised in-province care that may or not be related to their eating disorder. <p>I believe the methodology is solid and given that important proportions of the date come.</p> <ol style="list-style-type: none"> From CIHI I would be interested in a national perspective rather than an Ontario only view. Unfortunately, this type of analysis cannot be undertaken using data from CIHI. This would involve having access to both provincial-level data as well as data from CIHI. Most provinces do not allow data to leave their jurisdictions. In addition, we are not aware of similar programs in other jurisdictions, besides those in Ontario and British Columbia. References 20, 21 and 22 are 15 years old – newer more up-to-date required. There are not many recent studies that have estimated the full economic burden of eating disorders. Nonetheless, we have included a more recent study to address the reviewer's comment.