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Title	Registration for deceased organ and tissue donation amongst new Canadians: a population-based cross-sectional study
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Reviewer 1	Dr. Jeffrey Lipton
Institution	Princess Margaret Hospital, Medicine, Toronto, Ontario
General comments (author response in bold)	<p>This is a very interesting and potentially useful exercise that may allow increased recruitment of potential donors in ethnic populations</p> <p>A number of reasons for the differences are given, but the one that stands out most in mind as perhaps not being addressed, involves whether these same populations do not understand or believe in the organ transplant process</p> <p>What would be very useful to include as a comparator is a similar ethnic breakdown of the recipients of organ transplants in Ontario over the last number of years. Does it mirror donation? Has the breakdown changed as the ethnic mix within the province evolved with immigration?</p> <p>Response: Thank you. There has been no Ontario study looking at immigration breakdown of recipients of organ transplants in Ontario. However, this is beyond the current scope of the study and we will certainly consider this study idea in the future.</p> <p>In addition, some basic numbers about the total registered donor percentages in other provinces would be informative. Are there fewer registered donors in Ontario compared to Canada as a whole? If there is a difference, is it similar in other provinces where there would be a higher immigration rate - BC especially with a high rate from the groups pointed out?</p> <p>Response: Thank you, we conducted a study on the variability of deceased organ donor registration and compared some provinces.</p> <p>We now add a line in the design and setting, "In a 2012 study comparing characteristics and the proportion registered of different registries worldwide, Nova Scotia had the highest proportion registered at 42%, followed by New Brunswick (42%), Ontario (18%), Yukon (16%), Quebec (10%), and British Columbia (8%).(Rosenblum 2012)"</p> <p>Canada does not have a single registry system and not all provinces have an active donor registry so it is not possible to compare as a whole. Of note, pulling recent donor registration rates by province is not always feasible from registry websites.</p>
Reviewer 2	Dr. Ettore Bartoli
Institution	Università del Piemonte orientale, Internal Medicine, Dipartimento di Scienze Mediche, Novara, Italy
General comments (author response in bold)	<p>The paper is interesting and offers the opportunity for increasing the number of organ donation by understanding the socio-economic reasons for denial. Not being a Canadian, I do not know whether the information about religion is available: I feel that many answers could be found in reference to the religious beliefs.</p> <p>Response: Thank you, we have noted that we do not have information on religion in the limitation.</p> <p>A point that should be discussed in more detail is the importance of the concentration of immigrants: this makes me believe that the highest concentration indicates less integration and a more important influence of the original culture.</p> <p>Response: Thank you for your comment.</p> <p>We now write, "In another study examining how community-level factors affects organ donor registration rates, Ladin et al. found that groups with higher levels of racial homogeneity, native-born residents and other social capital variables had higher rates of organ donor registration.(Ladin 2015) They suggest that minority populations may have higher rates of altruistic behavior (i.e. organ donor registration) when they feel less isolated and better integrated with their community (Ladin 2015)."</p> <p>Murdie and Ghosh (2009) concluded from their study on ethnic concentration and integration in Toronto, Canada that higher ethnic concentration is not necessarily equal to a lack of integration. Therefore, we would prefer not to suggest from our own data that ethnic concentration indicates less integration.</p> <p>Ladin K, Wang R, Fleishman A, Boger M, Rodrigue J. Does Social Capital Explain Community- Level Differences in Organ Donor Designation? The Milbank Quarterly. 2015Sept;93(3):609-641</p> <p>Murdie R and Ghosh S. Does Spatial Concentration Always Mean a Lack of Integration? Exploring Ethnic Concentration and Integration in Toronto. Journal of Ethnic and Migration Studies. 2009Nov;36(2):293-311</p> <p>A final comment concerns the comparison with "native" Canadians: we do not know the reasons for denial among Canadians, and it would be most informative to know these. Unfortunately, the Canadian system registers only the "yes" answer.</p> <p>Response: Thank you for your comment. We did make note of this in our limitations where we wrote, "First, we had no information on the reasons why many immigrants did not register, which is important for the design of educational programs".</p>
Reviewer 3	Dr. Vianda Serena Stel

Institution	ERA-EDTA Registry, Academic Medical Center, University of Amsterdam, Department of Medical Informatics, Amsterdam, Netherlands
General comments (author response in bold)	<p>This is a nice study on registration for deceased organ and tissue donation amongst immigrants and long term residents in Canada. The paper is well written and clear.</p> <p>The authors especially focus on the possibilities to increase the proportion donor registration among immigrants in Canada. Although this paper is clear by focusing on immigrants only, I wonder, can the results of this study also provide new information to increase the percentage of donor registrations in long term residents? This may also be interesting as the authors write that the registration rate is low in Canada anyway, the absolute number of non-registered persons among this group is even larger than the number of non-registered immigrants. Moreover, the immigrants from USA, Australia and New Zealand have even higher rates than the long term residents, and we can learn from that. The authors could explain better why they focus on immigrants only, or alternatively, discuss registration of donations on long term residents also in this paper.</p> <p>Response: We agree that it both important to target everyone in Ontario to further fill the donor registry.</p> <p>We now write: "However, to fill the Ontario donor registry, it is also important to better understand the low rate of donor registration in long-term residents given that they represent a large absolute number of non-registered individuals"</p> <p>The authors often write about the immigrant group as a whole (for example in main conclusion of the paper). I would suggest to clarify throughout the paper that immigrants born in USA, Australia and new Zealand, in contrast to the other immigrant groups, had even HIGHER registration rates THAN long term residents.</p> <p>Response: We now write in the results:</p> <p>"Immigrants born in the USA, Australia and New Zealand region had a higher proportion of registrants than long-term residents."</p> <p>The conclusion now reads:</p> <p>"Immigrants born in the USA, Australia and New Zealand region had the highest registration rates and this group was higher than long-term residents."</p> <p>The proportion of persons with donor registration among immigrants is 11.9% and among long term residents 26.5%. I would suggest to add this percentage of 11.9% in Table 2 (for example by adding a row with "total of immigrants", and not only present the percentages by "immigrant" country).</p> <p>Response: Thank you, we added this in Table 2.</p> <p>At page 9 the authors write: "When we assessed the proportion of immigrants registered for deceased organ donation according to the world region of birth, the highest proportion of registered donors were from the USA, Australia and New Zealand (40%; 95% CI 39.5% to 40.5%) followed by Western Europe (20.6%; 95% CI 20.4% to 20.9%), and Latin American and the Caribbean (15.2%; 95% CI 15.1% to 15.4%). Less than 10% of immigrants from Eastern Europe and Central Asia (9.4%; 95% CI 9.2% to 9.5%), East Asia and Pacific (8.4%; 95% CI 8.3% to 8.5%), and Sub-Saharan Africa (7.9%; 95% CI 7.7% to 8.0%) were registered." I guess that by coincidence 40%+20%+15%+9%+8%+8%=100%, but that 40% may mean that 40% of the USA, Australian and New Zealand immigrants is registered as donor. Due to this possible misunderstanding I would suggest to make clear if you talk about row or column percentages (also in the abstract!).</p> <p>Response: Thank you, to make it clear, we added on page 9, "40.0% of immigrants born in this region were registered".</p> <p>The abstract now reads:</p> <p>Immigrants from the United States, Australia and New Zealand region had the highest registration rate (40%), and the lowest were those from Eastern Europe and Central Africa (9%), East Asia and Pacific (8%), and Sub-Saharan Africa (8%).</p> <p>We hope this clears wording clarifies our intent.</p>