## Article details: 2021-0061

Title: Health care access among transgender and non-binary people in Canada, 2019: across-sectional survey
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Reviewer 1: Thea Weisdorf
Institution: Family Medicine, St Michael's Hospital, Toronto, Ont.
General comments(author response inbold)
4. Is the study design appropriate? - Yes.

National, community-based research study. Survey data was collected over 10 week period August-October 2019; bilingual (does that exclude non English/French as first language individuals?) via paper (mailed), telephone ( $\mathrm{w} / \mathrm{wolang}$ uage interpreter), or by e-tablet. Full length survey or short form. Revised from2009-10 Trans PULSE study with extensive community engagement process.
Measures selected for comparability with Stats Canada surveys. Survey pre-testedfor clarity and functionality. Approved by REBs.
Thank you. Regarding language, the questionnaire was available in English and French but we offered the option to participate in another language by telephone, with an interpreter (however, no participants opted for this mode). We have clarified in the Methods that the interpretation option was for 98 languages, not only French. (p. 6)
5. Are the methods described in enough detail? - Yes.

Describes the five outcomes reflecting access to primary, gender- affirming and general health care: (1) Access to a primary care provider (PCP); (2) Access to a primary care provider with whom the participant feels comfortable discussing transhealth issues; (3) Unmet health care need; (4) Completion of medical gender affirmation; (5) On a waitlist for gender-affirming care.
Also discusses the exposure of interest using province/territory and in some casesgrouped together due to small sizes. Used Levesque's model of patient-centred access to care to standardize the population structure through adjustment for a setof demographic variables.
**This and the statistical analyses are not areas of expertise for me, so found these somewhat confusing. Also the analyses speak of "waitlisted participants"who are not aforementioned in the above sections.
As per responses to the Editors, we have revised to clarify steps of the analysis, including references for further information. We are happy to makefurther revisions if particular areas of confusion/lack of clarity remain.
We have also clarified the definition of "waitlisted" (participants who indicated being on a waitlist at the time of data collection). In addition, wenow note in the description of outcome 5 in the Measures that "In a sub- analysis, we describe the types of care participants were waiting for and median waiting times as of the survey date." (pp. 9-10)
8. Do tables and figures accurately represent the data? Yes
**Wonder why there is no reporting of Table 1 in the Results section?
We did not describe Table 1 results in text as per CMAJ Open instructions for authors ("Avoid any redundant presentation of data in tables and in thetext of the manuscript."). ( $n / a$ )
${ }^{* *}$ Could there be a comment about findings in Figure 4 why NWT/YK also havemore "Completed" than "In process" or "Planning"?
This finding is likely an artefact of the small number of respondents in NWT/YK, particularly for this variable that has three levels and is only analyzed in a subset of respondents (as can be seen in Table 1, just one ortwo participants heavily influence the proportions). ( $\mathrm{n} / \mathrm{a}$ )
11. For whom are these findings relevant?
**This could certainly be discussed in more detail than "... underscores the importance of continuing efforts to improve provider training and availability". Iwould add that health care educators need this
information, governments andhealth care advocates We have not elaborated on this due to space limitations. ( $n / a$ )

Reviewer 2: R. Jaakkimainen
Institution: Institute for Clinical Evaluative Sciences
General comments(author response inbold)
This is a well conducted survey amongst transgender and non-binary people andcontributes needed information and data to better Canadian
healthcare. My comments should be are for clarification and should be consideredminor.
Thank you! (n/a)
Page 6 mention "Peer Research Associates". Could more detail be provided onthis group or a reference? Similarly, maybe list or reference the "nine priority population consultation teams".
We have added more detail on the PRAs: "... outreach by Peer Research Associates (PRAs) in Vancouver, Calgary, Edmonton, Saskatoon, Winnipeg,Southwestern Ontario, Greater Toronto Area, Downtown Toronto, Ottawa, and Montreal. PRAs were well-connected trans and non-binary community members hired through an open call and trained in-person by the principal investigators."
We have also listed the priority populations and expanded on the composition and role of the consultation teams (see response to Editorcomment 12). (pp. 5-8)

Outside of clarity and face validity, was any test-retesting done with the questionnaire? How much different was revised questionnaire to the one used in2009/2010
The entire questionnaire was not subjected to reliability testing; however, it included many previously validated measures. The 2009/2010 questionnaire was revised extensively, which we now indicate. (p. 7)

While the five outcomes are described in the paper, it's a little less clear why a binary (yes/no) measure to access or yes/no to comfort with a provider may not bereally reflect a relationship with a primary care provider. It seems that a likert scalewas used for outcome 2 and then a binary variable was created? While individual may have a FP or nurse practitioner, they may actually rarely see them. Were theyany details or measures of continuity of care with their FP or nurse practitioner?
Regarding access to care (having a PCP), we did not include detailed measures of continuity but asked participants if they had seen their PCP in the previous 12 months. We focused here on having a PCP as a measure of access because it is reasonable that people may not have felt need for a PCP visit in that time. (However, we cross-tabulated those variables and it turns out that $92 \%$ of those who had a PCP had seen their provider in the past 12 months). We dichotomized comfort with a provider following previous literature, which we now cite. We further note that methodologically, treating comfort as an ordinal variable would make it challenging to compare across regions.Further, the scale doesn't have a neutral midpoint, so responses do truly reflect either comfort or discomfort. ( $\mathrm{n} / \mathrm{a}$ )

Were primary care teams examined in the survey or access to an individual FP ornurse practitioner?
The question did not specifically ask about primary care teams but did not exclude them either; the response options for not having a provider (now shown in the appended questionnaire) were "Yes, a family doctor", "Yes, anurse practitioner", "No, I receive primary care at a walk-in clinic", or "No, I am not able to access primary care". We think it is safe to assume that patients receiving care from a primary care team would not have selected either "no" option. (Appendix)

It seems that the CCHS survey definition was used to define unmet needs. But were examples of unmet needs provided? For example, could "not getting a referral to a dermatologist" be the same unmet need as "not getting prescriptionsrenewed quickly" or "not getting bloodwork checked regularly" or "not receiving evidence-based preventive care"?
No, we used the exact wording from CCHS (which is now explicitly noted), which does not provide
examples. (p. 8)
The covariates included in the models make sense. But the sentence saying that"we standardized the population structure" sounds like a standardization was undertaken versus these covariates were included in models. Was the latter the case?
Thank you. The variables were included in regression models for the purpose of standardization, versus control for confounding. We agree thesetwo uses of "standardization" may be confusing and have tweaked the description in the methods with the aim of clarifying: "For comparability across provinces or regions, adjusted for a set of demographic variables with the goal of standardizing the population structure." (p. 9)

Could the "other cultural gender identity" and "non-Indigenous racialized" groupsbe provided? This is helps to understand who was included in the survey.
The first was actually an error in variable labeling which we apologize for - the survey asked about core gender identity (if given a forced choice), in which "Indigenous or other cultural gender identity" was an option, with nospace to specify. The variable being used in this analysis was lived gender in day-to-day life, for which the third option was "sometimes boy/man, sometimes woman/girl". We have corrected this.

As for the composition of racialized groups, there were 14 different options for racial/ethnic identity, but we have provided a definition ("indicated theyidentified and/or were perceived as a person of colour") and refer to a project report where the breakdown isprovided. (p. 9)

Was there any correlation with "unmet needs" and "completion of the medicalgender affirmation"? Just wonder if these two outcomes are correlated.
We did not examine this; it is likely that they are correlated. (n/a)
The statistical analyses seem appropriate, but maybe clarify the steps. First, covariate frequencies. Second, methods used to deal with missing data. The description of dealing with missing data analyses is a little confusing. Then multivariate logistic regression. Finally, predictive models were estimated? Thissection is also a little less clear.
We have made edits to clarify the sequence of steps (e.g., "first...then....wethen"). (p. 10)
Not sure why weights would be applied. Not like you are oversampling a section ofthe population? Not sure this is needed in the paper.
The weights are intended to serve as poststratification weights to account for systematic differences between short- and long-form respondents, ratherthan sampling weights that account for unequal selection probabilities. As some published analyses from our study use the weights we felt it was important to transparently report that they were not used in this analysis. ( $\mathrm{n} / \mathrm{a}$ )

Table 1 is good. To clarify the \% is for overall sample as the denominator? Missingsome \% in the table. I also wonder if small sample sizes should be suppressed in the table to maintain confidentiality. The proportions are for the 2217 participants in this analysis, which is nowindicated in the table title. The missing proportions were a formatting issue(some were cut off), which we have attempted to correct. Given that only aggregate data are presented, we do not have concerns about loss of confidentiality. (Table 1)

Very good discussion, conclusion and limitations. I would encourage training and education to improve care and access to gender-affirming care to be included in family medicine, primary care training programs as well. I would also be interestedif team-based primary care which included care navigation could does or could support better transgender and non-binary person care.
While our survey did not delve deeply into the detailed experiences each person had within different modes of care, we have included in our call for future studies to include more in- depth exploration of these, as experiencedby transgender and non-binary people across Canada:
"Future studies should examine reasons for inter- (and intra-) provincial variation in health care
access, including qualitative studies and studies focused on providers and system factors, including the characteristics, andtypes, of health care delivery models (e.g. team-based vs. individual) and health care navigation trajectories that produce better care outcomes." (p.14)

