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Title	Access to cannabis retail stores across Canada six months following legalization: a descriptive study
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Reviewer 1	Tara Marie Watson
Institution	Centre for Addiction and Mental Health, Institute for Mental Health Policy Research, Toronto, Ont.
General comments (author response in bold)	<p>The abstract is appropriate.</p> <p>This study occurred at the very start of (one month following) cannabis legalization in Canada and involved the extraction and description of features of cannabis retail outlets across the country. From a public health point of view, it is important to monitor features of cannabis retail access and availability. Indeed, commentators and researchers have been debating the public health potential of privately-run versus government-run cannabis retail systems. The introduction is brief yet appropriate in this regard. Policymakers may find these preliminary results of interest.</p> <p>We thank Dr. Watson for her comments highlighting the importance and strengths of our study.</p> <p>1. However, I think more elaboration on the potential public health concerns and benefits associated with either broad type of retail system model (as well as hybrid models) could strengthen the introductory section – and while the lessons learned from alcohol and tobacco are suitable to mention, you could also add, for instance, the evidence-informed Cannabis Policy Framework (2014, 2017) by the Centre for Addiction and Mental Health.</p> <p>This is a great suggestion. As part of reworking our introduction we have included references to the evidence-informed Cannabis Policy Framework by CAMH.</p> <p>2. I do not think the rationale for examining low-income neighbourhoods in particular has been explained in enough detail. There are various and obvious potential health and social implications here which need to be more explicit. Some of this comes through in the discussion, but I think would be welcome much earlier in the manuscript.</p> <p>Thank you for this comment. We agree that more emphasis on the importance of examining concentrations in low income neighborhoods has not come through. We have included wording in our interpretation outlining this, see page 7 lines 279-90. We would like to discuss this more in the introduction but are already above the word limit for this manuscript, at the editors discretion we could expand on this.</p> <p>3. Minor comment: p. 3 line 47, do you mean to say “month following legalization”?</p> <p>Yes thank you for catching this error it has been corrected to 6 months following legalization as part of the revision.</p> <p>At this early stage of legalization, the collection of data and descriptive nature of the study are appropriate. The appendices are appreciated, including the documented listings of all the stores which may be of interest to other researchers tracking retail outlets.</p>

	<p>The data sources and analysis with STATA and ArcMap seem appropriate as well.</p> <p>4. The results suggest some burgeoning evidence that government-run retail systems are more aligned with public health principles (e.g., shorter hours per week, farther from schools), while privately-run retail creates greater access. These are not surprising findings and suggestions. The authors could do well to say more about market-driven goals or profit incentives associated with private retail cannabis systems, and how these may be at odd with public health, perhaps drawing on some examples from U.S. states like Colorado which have longer histories to date with their legalization experiments. We thank the reviewer for this suggestion and agree fully with her comments. We have expanded upon this in our interpretation section.</p> <p>5. Even though the alcohol literature has evidence regarding increased access leads to increased consumption and harms, there is still a need to be cautious about saying the same for cannabis in view of currently available and limited studies. I would perhaps make a stronger statement about this. Thank you for raising this. We have included stronger statements in our interpretation sections highlighting the need for caution in this regard see page 6 line 262-4.</p> <p>6. An important concern regarding number and location of cannabis stores in a jurisdiction is whether there will be enough coverage to eliminate illicit markets. Given the recent media attention to cannabis shortages and issues with accessibility tied to such concerns, I think the authors could say more about these issues. We agree with this excellent comment. We have restructured our interpretation and introduction sections to further address the balance between sufficient coverage to eliminate the illicit market while not promoting cannabis use. We highlight that at present time there is insufficient information to make this judgement.</p> <p>7. While I am aware of the reasons why Ontario and Nunavut did not have retail stores at the time of this study, other readers will wonder and be interested. A quick statement regarding, in particular, the change in model in Ontario due to a political shift would be welcome. This is a great suggestion. We have included this information in our new Methods, Settings section to help provide context to readers less familiar with the Canadian context.</p>
Reviewer 2	Jenna Valleriani
Institution	British Columbia Centre on Substance Use, Vancouver, BC
General comments (author response in bold)	<p>Thank you for the opportunity to review this important article that traces an evolving landscape in Canada's legalization policy. There is some very good information here that questions the evolution of the retail landscape and its link to potential health harms. Below I offer some suggestions while reading this piece, but also encourage the authors to consider their points around a restriction of 150m vs 300m more critically - is the underscoring idea that an additional 150 m somehow provides "more" protection to youth? I'm not sure that the mere presence of cannabis retail stores is inherently harmful to young people. I think this is the 'easy' argument to make, but I'm not sure its substantial. How does this differ</p>

from zoning for alcohol stores? It seems that 150 m exceeds zoning regulation for alcohol, despite high use and concern of the effects of use on youth. What other measures could serve to protect youth which are being use (for example, in Ontario, the inside of stores cannot be visible from the street).

We thank Dr. Valleriana for her comments around being more critical about points of restriction. This echoes feedback provided by the editor and we have integrated a more critical lens throughout our revised manuscript.

I offer some more specific comments below:

1. on page 3 lines 21-22 you use Ontario as the example but above noted they are excluded from the review because they don't have any stores yet

Thank you for raising this point. As part of our restructuring our introduction we have removed this example. However, we have included data from 6 months which now includes primary Ontario data.

2. - there seems to be an assumption that closer proximity to schools increase harms - is this the case in relation to the literature on alcohol and tobacco? Can this be substantiated? I often in both BC and Ontario see liquor stores close to schools, would like to see this assumption teased out a bit (e.g. whats the difference in terms of 150m vs 300m?) (((- Sorry I see this is partially addressed on page 8, but still does not follow))

Thank you for raising this important point. Experience from the tobacco literature suggests that youths who live in or attend school in close proximity to tobacco retailers are exposed to greater point of sale marketing and may have increase first time use of tobacco. We agree that that there is no evidence suggesting that specific distances would be more protective. In addition, as you outlined certain provinces currently prevent point of display promotion of cannabis (i.e. in Ontario one must be greater than 19 to enter a cannabis retail store and store contents cannot be visible from outside). As part of our revision we have reduced our emphasis on the distance between cannabis retail stores and schools as these important limitations limit the interpretation of findings.

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4832971/>

<https://www.ncbi.nlm.nih.gov/pubmed/25370699>

3. From a municipal policy perspective 300m is quite restrictive in the sense that any geographical mapping I've seen of major cities (e.g. Vancouver and toronto) demonstrate little to no available retail real estate that meets these objectives. How are these considerations shaped by high density city areas?

Thank you for raising this. While completely logical to the best of our knowledge no regions have employed differential buffers based on urban densities. We agree that 300 meters can be quite restrictive in major cities – though based on our mapping there are some spots that would be available.

4. the comment "In addition, stores in private models were located closer

5. to schools than in government models" - isn't this more a function of municipal by laws rather than implying this is inherently the choice of private retailers?

This is an interesting point. An analysis of individual municipal bylaws across Canada is unfortunately out of scope of this manuscript, but may be

a worthwhile topic of future investigation. Municipal bylaws likely have some influence on the placement of cannabis retail. We believe that the overall provincial government system's influence is worth exploring. For example, the Ontario government has placed a minimum separation distance of 150 meters from schools BUT has also prohibited municipalities from placing further restrictions or separation distances on the location of cannabis retail stores.

6. I am wondering if there was a difference in municipal legislation between those with govt retail vs private retail (eg. did private retail jurisdictions have more relax zoning requirements?)

This is a fascinating question, but doing individual municipal analysis across Canada is unfortunately out of scope of this paper given that we want to publish these results in a timely fashion. We hope future research is able to answer this question.

7. I'm confused again by the assumption that a difference between 150 to 300 m serves to protect youth (e.g. 2 minutes vs 4 minutes) - are the authors suggesting that the mere presence of retail stores put young people at risk? Does this follow with other substance use literature? I find this a bit too simplistic- and would urge authors to consider that restrictions in and of themselves have never really served to 'protect' youth, as well as overly restrictive regulations can actually have the opposite effect of protecting the Canadian population by fueling the illicit cannabis market.

please see our response to point 2.

8. With regards to vulnerable populations, have the authors considered recent Canadian studies found people who use drugs report using cannabis intentionally to reduce crack use (Socias et al. 2017), as well as greater treatment retention in treatment and who use cannabis daily (Socias et al. 2018). Additionally, how regulatory changes— particularly in states with the most access to medicinal cannabis — may affect opioid-related deaths (e.g. Powell, Pacula & Jacobson 2018)?

We thank the reviewer for this interesting comment. We are hoping to explore this potential benefit from increases access to cannabis in future work. However, examination of specific harms and benefits was out of scope of this paper that is focusing on proximity to school and SES characteristics of retail locations. We have outlined in greater detail that potential benefits of cannabis legalization in our introduction section.