

Name (date)	Comments / Concerns	Response
<p>T. Adamson (April 7, 2021)</p>	<p>I will not be able to attend the digital public information meeting as I don't have Microsoft Teams, but hoped I could give you some input anyways.</p> <p>I am a new resident in Miramar village and my home faces Johnston Road.</p> <p>When we bought our condo the sales team showed us images of a bustling retail space at street level with a major grocery store, outdoor cafes and restaurants.</p> <p>There would be a sense of safety and security at night as your fellow neighbours were out on the street picking up groceries and dining out doors.</p> <p>Instead, what we have moving in is a bank, a credit union, an optometrist and a physio clinic which will all be closed after 5pm.</p> <p>What is open after 5pm is two liquor stores two blocks away at North Bluff and Johnston road, another liquor store a block and a half South at 1235 Johnson and a cannabis store on my block open until 11pm.</p> <p>I look down on this Cannabis store from my balcony and on Friday and Saturday nights it's a steady stream of cars double-parking, music pumping while young people run in to get the pot they plan to smoke that night.</p> <p>With 3 liquor stores, 2 brew pubs and 1 cannabis shop within the 3-block "town centre" I would encourage you to hold off granting any more Cannabis retail permits until such time as some other retail stores open to balance it out and attract a more diverse group of people to the area.</p> <p>I would hate to see Uptown White Rock become its own little Granville Street where there is nothing open at night except stores selling alcohol or pot.</p> <p>You will then start to see groups loitering, dealing drugs, panhandling, graffiti etc.</p>	<p><u>Applicant Response:</u></p> <p>We operate stores in Chilliwack and Victoria and have not witnessed a steady stream of vehicles nor unruly youth nor graffiti – nor has our legal White Rock competitor noted such behaviour.</p> <p>The vast majority of our customers are middle-aged recreational users or older consumers seeking medicinal products. Most sales occur between 1-7 pm.</p> <p>The profile and spending patterns of these consumers actually enhance sales for adjacent local businesses.</p>
<p>R. Chow (April 13, 2021)</p>	<p>Thank you for the letter of notification re the digital public information meeting on April 15th, 2021 re the Stone and Seed's application for a Cannabis Store at 1421 Johnston Road, White Rock, B.C. The undersigned is the owner of the property at 1478 Johnston Road, White Rock, BC. at which the cannabis store, A little Bud Cannabis is located and operating. I am sending you an <b>URGENT</b> petition! Please note that this is voluntary, out of my own volition, based on my duty and responsibility. To emphasize, this is not a request from a Little Bud Cannabis or, on their behalf, namely, the business owners; Randy Tingskou and Kaleigh MacAlpine.</p>	<p><u>Applicant Response:</u></p> <p>City Staff will address the concern of whether Council Policy intended to restrict the town centre to a single outlet. Generally speaking, competition is a good thing as it brings out the best in people and serves the consumer through better product diversity and improved customer service.</p>

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	<p>The following is for your deliberation, to consider revoking further applications for cannabis stores:</p> <p>Background:</p> <p>1) When I interviewed and screened Randy and Kaleigh (his wife), they presented meticulous research and fact-based accounts of all their detailed business plan, projections, statistics, market research, feasibility and viability reports etc. Most importantly, they conveyed and pointed out the very explicit indication (link below) that the City of White Rock would only allow <b>ONE</b> qualified candidate to operate in the community, as stipulated under the City's Policy:</p> <p>"The City of White Rock's zoning bylaw does not permit the sale of cannabis in any zone, but does provide a framework for consideration of a single recreational cannabis store in the Town Centre area, under a Council-issued Temporary Use Permit.</p> <p>In addition to being restricted to the Town Centre (bounded by North Bluff Road, George Street, Thrift Avenue, and Martin Street), the location criteria for a Temporary Use Permit for a cannabis store include being 100 metres from the entrance to a child care centre, 30 metres from public parks in the Town Centre (Bryant Park, Hodgson Park, and the Town Square located at 1510 Johnston Road)....." <a href="https://www.whiterockcity.ca/705/Cannabis-Policy-Information">https://www.whiterockcity.ca/705/Cannabis-Policy-Information</a></p> <p>In essence, their enterprise was embarked on and decided upon, based on their comprehensive understanding of the City's rules and extensive market research, such as the vital consideration of the local population (legal age etc.), as this would affect critically business plans, supply and demand, which are the crucial and significant elements for determination of the success or failure of a business operation.</p> <p>2) During the long process of over one year of enduringly waiting, working at it wholeheartedly and perseveringly in the interim to get the business operation underway, their work ethics was most remarkable and beyond comprehension! Eventually, their qualifications, dedication and hard work overwhelmed the other two competitors!</p>	<p>We have seen in both Chilliwack and Victoria that proximity is helpful, not hurtful. Our competitors thrive as we often serve different market niches. It is common practice to allow restaurants, grocery stores, banks etc. to be proximate to one another to provide consumer choice. There is a public policy rationale for maintaining some distance from childcare centres or schools. There is, however, no compelling public policy reason to restrict cannabis outlets from being close to one another.</p> <p>Vernon has approved six downtown stores, Salmon Arm five and the Kamloops suburb of Tranquille has four – these communities have a smaller population than the White Rock-South Surrey corridor of over 100,000. This would suggest that there should be sufficient market demand to warrant at least three stores in the Town Centre – without risk to incumbent operators.</p> <p>Council was wise to impose a three-store restriction on a temporary use permit basis in order to subsequently evaluate supply/demand metrics and social impacts. Last year, the proposed BC Cannabis store in the same location mailed approximately 600 public notification letters – this year over 1,800 were mailed for this Application. This would indicate population growth over the past year. With current high-rise</p>

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	<p>In passing, the other two counterparts did not re-apply as everyone was imprinted and understood well that the City allowed for ONE cannabis store only, as was clearly stipulated.</p> <p>After the approval, they spent half a year for the renovation, non-stop working at it for the launch! They are labouring and working tirelessly daily and continuously towards their lifelong dreams and goals!!</p> <p>3) After the very stressful year of waiting for the approval and receiving the award, the owners have poured their entire life savings plus loans from; relatives, friends and banks and devoted a voluminous amount of capital into renovating and operating the store. They constantly work hard, night and day, 24/7, apart from several hours of sleep a night, in order to achieve success of providing for their families and other families, as well as for the community. They believe very strongly in the greatness of the human spirit and extending help to everybody, to their utmost ability!</p> <p>This can be attested through their volunteer efforts in cleaning up White Rock's beach areas, food bank donations, as well as contributions to the City and a myriad of other devoted conscientious helping efforts and endeavours! In addition, the owners provide and create much-needed employment opportunities for many.</p> <p>It truly breaks my heart to see them toiling, day in and day out, dedicating to their various fervent causes, caring so much for other people but seldom tending to their own needs!</p> <p>3) They were both very traumatized and devastated to hear of Seed and Stone being approved to operate at the Marine Drive location which happened so speedily, whereas they have been patiently waiting for the City's approval for over a year and paying rents!</p> <p>And now, there is another forthcoming application from Seed and Stone in the Miramar complex, which is right across from their store!! This has never been expected! Imagine their utter shock, dismay and feelings of betrayals!</p> <p>I feel very sad for them. I was also trying to experience, feel and immerse in their deep gut-wrenching pain and pretended, for a moment that, if any one of us</p>	<p>construction, the population density will continue to rise. Given the population characteristics of White Rock and the other aforementioned communities, an additional store does not pose a concentration risk.</p> <p>Our market research and business feasibility study based on data from Statistics Canada suggests ample room for multiple players to co-exist in the cannabis industry in White Rock.</p> <p>We expect to generate additional employment worth ~\$350k/ annum during the current testing economic environment besides enhancing the sales of the stores in the adjacent retail area.</p> <p>We are local business operators and are determined to offer a high-end, quality experience befitting of White Rock's image. We note that due to our business background, Bosa Properties welcomed our lease application as it would be consistent with their vision for the property. We point out that in Victoria, the province abandoned their proposed site in preference to ours due to the quality of our interior design, our relations with First Nations and our business experience.</p>

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	<p>were in their same position and plight, how crushing it would be!! They were of the strong belief that they were the only cannabis store permitted, as stated in the City's Policy.</p> <p>4) What was heart-breaking for them is that the rules seem to have been changed so fast, which truly will affect their lives and the livelihoods of other employees/families as well. The negative impacts are very far-reaching!</p> <p>5) They would not be as shocked or as distressed, were they to know about it beforehand as they would then be able to decide whether to go ahead or not with their business plans, dreams and goals.</p> <p>As well, there should be <b>boundary restrictions</b>, that is, no two cannabis stores should be allowed to be set up so close to each other! This practice is common across the industry.</p> <p>6) Randy and Kaleigh are the most conscientious, professional and industrious business operators that I have ever witnessed. I am very touched and moved by them!</p> <p>7) In this regard and, realizing their conscientious, devotion and dedication, I am prepared to sign their lease for a long period, so that they can operate with peace of mind.</p> <p>We are cognizant of the fact that business owners need an extensive time period to recover, to build up and to recoup their heavy personal sacrifices and financial investment.</p> <p>Personally, I feel that we have the duty and responsibility to foster their success as they are the pillars of the society. These excellent, hard-working, selfless and altruistic individuals are contributing immensely to the community and to the society. Please give them a chance to survive in these strenuous times and in such a very difficult economic environment!</p>	

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	<p>I feel and believe strongly that we have the duty and responsibility to lend them a helping hand for their survival and extend essential empathy, under such austere current environments!</p> <p>All of us are now going through very difficult and hard times and need the warm support of each other in order to get through and sail smoothly! We are all suffering desperately! Despite these, let's all hold hands together and we will break the looming dark gloomy storm and see the glorious sun again!</p> <p>In conclusion:</p> <p>It is my deepest desire and, from the core of my heart, to implore an entreat all to <b>execute and implement the following immediately</b>, as many livelihoods are at stake and anxious people are looking up and counting on you for your help!!</p> <p>1) A <b>moratorium</b> to stop/suspend all applications for cannabis stores, so as to give the newly-established business owners a breathing space to start a foothold. As well, the strong request and plea to please <b>rescind and revoke</b> Seed and Stone's application at the Miramar location, namely, right across from A Little Bud Cannabis!!!</p> <p>The incredible distance closeness between the two stores will generate extreme hardships for the business owners.</p> <p>The local population (legal age consumers) does not sustain for more prospective cannabis stores. Businesses will be suffocated and stifled of revenues and will not be able to operate successfully!</p> <p>Market saturation vs. the population (legal age consumers) will push existing ones to bankruptcy and all livelihoods will be severely impacted negatively.</p> <p>Personally, I suffered a very painful experience. We were business owners a long time ago and operated an establishment but was driven to bankruptcy due to the crowding/clustering of similar businesses cropping up in the same vicinity and close proximity. There were no laws/rules instituted then.</p> <p>The population could not sustain the number. As a result, everybody suffered and all the ill consequences and ramifications alongside from the aftermath!</p>	

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	<p>2) The Indigenous Bloom cannabis store at Marine Drive, White Rock is in operation. Hopefully, the Seed and Stone cannabis store in the Marine Drive location will not be planning to operate, due to market saturation.</p> <p>3) I feel that the local population (legal age) presently does not sustain the excess markets. As a result, A Little Bud Cannabis will be severely affected, in terms of sales, if there were to be more cannabis stores.</p> <p>Already they are trying very hard in order to maintain the rents. With the establishment of others, it will further push them into serious hardships.</p> <p>As mentioned, it would not be a shock to them had they known about it initially. The City's rules solidify their decision and they have great trust in the integrity of the City.</p> <p>In all, I beseech you to empathize their dire situation and deliberate on the above and to consider <b>revoking</b> any applications, so as to give this extraordinarily dedicated and hardworking small business operator a chance to survive, and to drown, amidst such difficult current times!</p> <p>Last but not least and above all, I would like to commend all in running the City so beautifully and admirably! It is just a wonder! A lot of conscientious efforts are exerted. We are deeply grateful for all of your dedicated efforts. It is profoundly appreciated always!</p> <p>In closing, thank you so very much for your time in deliberations. Hope that the above urgent petition will be favourably and benevolently considered.</p> <p>We are indebted to all of you! Again, my deep appreciation for all that you do!</p>	
<p>K. Ware (April 15, 2021)</p>	<p>Good afternoon, I hope your week is going well. My name is Kathleen Ware and I work at A Little Bud Cannabis on Johnston. I'm also a White Rock resident, owning a condo on Fir St and raising my family here.</p>	<p><u>Applicant Response:</u> We appreciate the respondent's need for a variety of services. The uptown already has multiple options for services such as groceries, restaurants, banks, clinics etc. However, there is no second option for a cannabis retail storefront.</p>

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	<p>I wanted to voice my concern regarding Seed &amp; Stone's application for a second location in White Rock, particularly it's location - just steps away from A Little Bud.</p> <p>As a resident, I feel that it's too close to the existing approved cannabis store. We need a variety of services in White Rock, not a cannabis store on every corner (nor would I want a bar on every corner etc). Seed &amp; Stone hasn't even opened up their location by the beach yet &amp; here they are, trying to secure more locations. Even before I started working at A Little Bud, I was under the impression that White Rock council approved only 1 store in White Rock and now in less than a year, you've approved a 2nd and now potentially a 3rd. I live steps away from the proposed 2nd location for Seed &amp; Stone and I wasn't made aware of it until I saw the sign posted. Had I not seen it, I wouldn't have been able to voice my concerns.</p> <p>As a resident and tax payer, I would like to see council honor its decision (1 cannabis store in White Rock), see how A Little Bud performs and then open it up (after 3 years) to other cannabis stores to see if they can pass the muster, meet their commitments to residents and operate as A Little Bud does with professionalism, integrity and compassion.</p> <p>Thank you.</p>	<p>Please note our comments above as to proximity, population density and market feasibility.</p> <p>A second cannabis retail store would cater to a consumer's need for variety in services in a densely populated uptown area.</p>
<p>R. Tingskou (April 15, 2021; May 3, 2021)</p>	<p>Letters attached, including staff response to May 3, 2021 email.</p> <ul style="list-style-type: none"> <li>- <i>Concerns noted about number of stores being considered in the Town Centre</i></li> </ul>	<p><u>City Staff Response:</u></p> <p>Zoning within the Town Centre allows for up to three (3) cannabis stores, subject to a temporary use permit and the satisfaction of several criteria outlined in the Bylaw.</p>
<p>A. Micka (April 16, 2021)</p>	<p>Letter attached.</p> <ul style="list-style-type: none"> <li>- <i>Issues summarized:</i> <ol style="list-style-type: none"> <li>1. <i>risk of toxicity</i></li> <li>2. <i>unintended exposure to children</i></li> <li>3. <i>high mortality and morbidity attributable to cannabis, including motor vehicle accidents, lung cancer and substance use disorders</i></li> <li>4. <i>occupational safety risks</i></li> </ol> </li> </ul>	<p><u>Applicant Response:</u></p> <p>Health Canada considered all of these issues/risks prior to legalizing Cannabis. Health Canada properly concluded that (i) these risks were much higher if Cannabis is provided illegally through the underground; and (ii) the risk is reduced if Canadians have</p>

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	<p><i>5. negative mental health outcomes</i></p> <p><i>6. respiratory health impacts</i></p> <p><i>7. impaired child and youth development</i></p>	<p>access to regulated and inspected products that are fit for human consumption.</p> <p>The central policy thrust is the necessity to keep Cannabis out of the hands of children and the proceeds out of the hands of criminals.</p>
<p>E. McElrevy (April 22, 2021)</p>	<p>Hello Greg,</p> <p>I am using my son's email account, as I am not really familiar with technology.</p> <p>This is the first time that I have ever written one of these, so excuse me if I get it wrong. I just wanted to pass along how much having this open up close to us is really going to help me out. You see I have a bad back, and walking any distance is really a pain. However this location is relatively close to where I live.</p> <p>I am not a big fan of taking pill medication for pain, but I often find that having a toke a few times a day is enough to dull that pain to acceptable levels.</p> <p>please grant this opening as it would be real pain in the arse to having to walk to another location</p> <p>All puns intended</p> <p>Thank you</p>	<p>No response required. Comment noted.</p>



To the Mayor and Council for the City of White Rock

Re: Inquiry and potential objection by 'A Little Bud', the sole TUP Cannabis Store under the City of White Rock's current 'One store Pilot Project' to the approval of the Application by Seed & Stone for a Temporary Use Permit to locate 2 Cannabis Stores in the City of White Rock before the expiry of our current TUP including permitting one in close proximity to our existing single store.

I am writing to you in my capacity as one of the local owners and the Principal Operator of "A Little Bud" Cannabis Store that operates, based on a 3 year (renewable term) Temporary Use Permit (TUP) under a City "Pilot Project" under the existing City By laws as the permitted and approved 'one single Cannabis Retail store' at 1484 Johnston Rd. in the City of White Rock since August, 2020.

It has been brought to my attention that the City approved a TUP for Seed & Stone at 15053 Marine Dr March 8 2021 and there is yet another application heading to Public Information Hearing just 41 meters from PID to PID on April 15 2021. This is all occurring within 7 months of our doors opening and 13 months since Council's decision to allow a "One Store Pilot Project".

I would like to know if it is proposed to allow these stores to commence operations by opening to the public on or before the expiry of our TUP in or about February 2023 as the sole permitted store under the existing bylaws and, it is respectfully submitted, contrary to those bylaws, and if so to protest the proposed operation/opening of the above additional Cannabis stores based on the representations, requests, promises and assurances made to us during the course of and after the approval of our application as the sole store under the three year pilot project and that we relied upon in putting together, modifying and finalizing our application and store to meet all City requirements for the full period of our permit.

Both before and throughout the application process it was clear that the city was proposing a 'limited an gradual approach' to the establishment of cannabis stores and applicants were encouraged to increase the overall store size and the amount of parking proposed to meet expected demand as the only store available which we did, relying on those requests and assurances from the City and staff based on the fact that we would be the sole store for the 3 year TUP. We relied upon these statements and assurances in planning, leasing and financing our operation and believed our application would be prejudiced if we did not do so. We are now very concerned that the City might now be renegeing on these promises and assurances by allowing not one but two further stores to open, despite the still recent Pilot project and in the near future including one nearby.

We want to stress that we have no problem having competition once our promised 3 year TUP Pilot Project ends but we still object to the proximity of one of the proposed new stores based on issues of 'clustering' that has been raised in the past in relation to the establishment and location of such stores in one area, as per the attached Appendix that specifically addresses that issue.

Our current objection is not only that it is proposed to locate so close to our store as to offend the 'clustering' rule concerns but most importantly that it is prior to the expiry of the 3 year "Pilot Project" TUP involving our store as the single store taking into account the investments made in reliance upon the process outlined above.

Specifically, 'A Little Bud' was granted its TUP on February 10, 2020 having applied in July of 2019 and once all other City requirements were met was able to open its doors to the public in August of 2020. We understood that we would be the sole Pilot Project White Rock Cannabis Retail Store until February 2023 (approximately 3 years) when able to open and that the City staff would be evaluating us as the Pilot

Project before possibly moving ahead with additional stores, if at all at some time in the future thereafter the 'limited and gradual approach'.

Prior to making our Application we were aware of the various discussions that went on at City Council commencing in June of 2018 and in particular the motion of June 25th 2018 where Council voted to accept 'Option 2' of the various options presented and that specified **'a single store pilot project in the Town Center'** and then further discussion in July of 2018 where it was recommended that the Zoning bylaw be amended to regulate **'a single cannabis retail store pilot project'** using a 'limited and gradual approach' to introducing cannabis retail into White Rock through the use of a TUP and a single store. We understood that in February of 2019 Council, despite the suggestion by staff of allowing more than one store, again voted to confirm only one temporary use permit Pilot Project application for White Rock and those amendments to the bylaw were approved on March 13<sup>th</sup>, 2019.

Subsequent to our application we held a Public Information Meeting in September of 2019 and on December 2<sup>nd</sup>, 2019 the three applications pending were presented by staff to Council and the minutes once again reflect the prior decision to use a Temporary Use Permit (TUP) with only one Cannabis store in the White Rock Town Centre in accordance with the current bylaw and taking a 'limited and gradual approach'. The applications were reviewed in January of 2020 including public hearings and then on February 10<sup>th</sup>, 2020 that sole permit was granted to 'A Little Bud'.

In summary, in making our application we relied significantly on the fact that the City of White Rock had indicated that it was planning to have only one store as a pilot project with a temporary use permit for up to three years. Both prior to our application and thereafter we consulted with City staff and made modifications such as increasing the size of our location and the amount of parking etc. because we were told as the only store, we would need more space to service the White Rock public and more parking. In other words, we relied upon these representations and statements of Council and staff and took steps to accommodate their requests at some financial cost.

We now see that the City is currently entertaining an application from another company to establish 2 more stores in White Rock despite the current Bylaw and Pilot Project and understand that the application for one store was given third and final reading on March 8 2021 is located at 15053 Marine Dr which is down by the water and that the Public Information Meeting being held April 15,2021 is for the application at 1420 Johnston Rd, 41 meters away from our store (PID to PID).

Consequently, we write to inquire as to whether or not the City not only proposes to enable these new stores to operate prior to the expiry of our TUP 'Single Store Pilot Project' despite its previous position, promises and assurances and also to enable one store to locate in very close proximity to our store leading to additional clustering concerns.

May we please hear from you in this regard at your earliest opportunity,

Yours Truly,

Randy Tingskou



Principal Operator

A Little Bud

Date: April 15, 2021

To: The Municipality of White Rock

Re: Letter of protest with respect to the application for Temporary Use Permit issued under the Local Government Act

Dear Registrar:

We are sending this letter to you and to the City of White Rock in protest of the proposed Cannabis Retail Store in White Rock which is being contemplated pursuant to a new temporary use permit.

We highlight numerous problems with this variation and with the proposed location as pertain to the matters of public interest highlighted by the Registrar. We have outlined the issues below:

The proposed location for a Retail Cannabis Store at any new location in White Rock is not in the public interest. It will impact youth and other vulnerable groups in close proximity to the proposed address. It would also result in forming a problematic "cluster" by locating the retail Cannabis store amongst other types of businesses and services which research has shown, when in combined in higher density, have a negative impact on the streetscape, crime rates, and community as a whole. Clustering with any one of the listed (below) services or establishments might not be problematic in its own right, but the proposed location is virtually at the geographic hub of a 300 meter circumference which encompasses numerous community services establishments serving disadvantaged and vulnerable groups as well as other cannabis stores which currently service the market without causing the deleterious effects associated with business clusters.

#### **Matter of Public Interest: Community Health and Safety**

While Cannabis is now legal in Canada, the British Columbia government has outlined related public health implications and the following potential harms:

1. risk of toxicity
2. unintended exposure to children
3. high mortality and morbidity attributable to cannabis, including motor vehicle accidents, lung cancer and substance use disorders
4. occupational safety risks
5. negative mental health outcomes
6. respiratory health impacts
7. impaired child and youth development

While increased risk of some of these potential harms might apply equally to all Cannabis stores across the province, a few apply to the proposed location in White Rock disproportionately due to close proximity to vulnerable groups and clustering effects. The proposed location is in a socio-economically disadvantaged area, where clustering and ease of access to Cannabis are certain to increase levels of harm in the many vulnerable groups present.

A peer reviewed 2015 study<sup>1</sup>, concluded that:

*“...prevention and intervention programs for marijuana abuse and dependence may be particularly essential in areas of concentrated disadvantage [sic]. Policy makers may want to consider regulations that limit the density of dispensaries.”*

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The “concentrated disadvantage” referred to in the study is mainly income disparity. This proposed store location would only exacerbate problems suffered by an already socio-economically disadvantaged area and deter from the street scape, and the health and safety of the community. Through the proposed store front in White Rock, economically disadvantaged people and members of vulnerable groups would have immediate and easy physical access to Cannabis virtually on their doorstep. The Income Disparities are clear from data derived from the 2016 Census which indicates that in this area the population is vulnerable with low median household incomes, and higher than average percentages of individuals without any income whatsoever.

In fact the data skewed higher for this area because its defined borders encompass exceptionally affluent areas in the surrounding area. Were this effect to be corrected for, the area immediately around the intersection at which the new store is proposed would show to be substantially worse than the data indicates. This part of White Rock would indeed skew to be one of the worse off areas in the entire district.

While adults in these vulnerable groups have the legal right to participate in the retail market and purchase Cannabis of their own accord, research has shown that for price sensitive consumers, easier physical access is a strong determinant for increased use. Public health authorities in other provinces, specifically Ontario, has stated through the Ontario Public Health Association (OPHA) as follows:

*“...easier access leads to reduced total costs required for purchasing including the costs of time, travel and actual price, and frequent contextual cues increases impulse purchases by experimental and occasional users, and users who trying to quit (60). Literature shows that more than one-third of smokers and younger*

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<sup>1</sup> Mair C, Freisthler B, Ponicki WR, Gaidus A. The impacts of marijuana dispensary density and neighborhood ecology on marijuana abuse and dependence. Drug Alcohol Depend. 2015 Sep 1;154:111-6. doi: 10.1016/j.drugalcdep.2015.06.019. Epub 2015 Jun 23. PMID: 26154479; PMCID: PMC4536157.

*smokers report that ease of access to purchasing cigarettes impacted their frequency of use (60). We can infer that the proliferation of cannabis retail outlets will have similar effects on the public, resulting in increased consumption and access among youth and the general public.”*

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The implication of the OPHA’s statement is that, locating a Cannabis store even 5 minutes further walking distance would significantly impact the perceived “cost” of purchasing Cannabis to a price sensitive consumer. In this case, the proposed store is within a 2-minute walk of a dense cluster of housing and premises catering to lower income persons.

Further, research also shows that a clustering of Check Cashing places, Alcohol Purveyors (this extrapolates to Cannabis Purveyors in the research), and like businesses, is tied to increased crime rates and unruly public behavior. In fact the OPHA includes retail pharmacies in its list of businesses which it recommends should be geographically buffered from Cannabis retail stores. In the case of the proposed amendments in White Rock, this “clustering” effect (in close proximity to numerous retail pharmacies, housing complexes catering to disadvantaged persons, liquor sellers etc) is so pronounced that it could be perceived as predatory on the part of the new applicants to operate businesses in the area above the cannabis storefront currently in existence. In fact, the only elements missing from the “cluster” are a legal betting place/casino and a halfway house for recovering substance abusers. A partial list of services and groups in the cluster is listed below.

#### **Public Interest: Risk to Youth / Vulnerable Groups**

There is clearly enhanced risk to youth due to the housing nearby and the nearby playgrounds and parks. While not part of a public school, these public spaces serve as a meeting place for youth in the area and is within the 300 meter setback proscribed for schools. If the intent of the mandated school setback is to protect children and youth, then applying it to a play area seems reasonable in the context of an economically disadvantaged area where parents/guardians cannot readily afford childcare and before/after school programs. These children are therefore more likely to visit the play area unsupervised. In this context, we cannot envision a scenario where adding a Cannabis store to the immediate streetscape would not substantially increase risk to youth both through use of Cannabis or being exposed to it by of-age friends and peers who would now have easy access to a legal supply.

Further, the research indicates that:

*“... high usage rates by low income females in child-bearing years has significant public health implications, and represents a subgroup of concern.”*

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Given the proposed location’s proximity to a large public housing complex and support services targeting younger women from lower income groups, the risk of increased harm to this subgroup is certain to be higher as compared to locating the retail store outside of short walking distance from the sub-group’s place of residence and institutions from which they receive social support. We note here that nearby facilities cater to younger women looking to reintegrate into normal life post-incarceration. This is exactly the sub-group to which the research refers and warns government about in regards to clustering of cannabis businesses.

In conclusion, we strongly suggest that this proposed bylaw amendment and temporary use permit is

not in the public interest. We are not averse to Cannabis legalization or retail sales of Cannabis in our city. There exists, however, a body of scientific knowledge which indicates that not all locations for legal Cannabis sales are created equal with respect to the enhanced risk they pose to a community. We suggest that this massive cluster of economically disadvantaged persons, social services for vulnerable groups, school, playground, alcohol purveyor, and retail pharmacies is a virtual powder keg already, WITHOUT the addition of easy access to retail Cannabis. While we wish cannabis stores well in their endeavors, we strongly urge you to reject this change in the bylaw for this specific area. It is the hub of too many sensitive groups and contraindicated establishments. It is hard to imagine a worse location (as per the peer reviewed science on the subject of outlet density and streetscapes) than the one proposed here.

We hope you take our comments into serious consideration in your deliberations when deciding on the merits of this proposed store location. To do otherwise would be ignoring the health, safety and wellbeing of this community. **IT IS NOT IN THE PUBLIC INTEREST TO GRANT THIS BYLAW AMENDMENT OR TO MAKE THESE CHANGES WE HAVE ENOUGH STORES ALREADY.**

Thank you for your consideration  
Concerned resident





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## The impacts of marijuana dispensary density and neighborhood ecology on marijuana abuse and dependence

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### Abstract

**Background**—As an increasing number of states liberalize cannabis use and develop laws and local policies, it is essential to better understand the impacts of neighborhood ecology and marijuana dispensary density on marijuana use, abuse, and dependence. We investigated associations between marijuana abuse/dependence hospitalizations and community demographic and environmental conditions from 2001–2012 in California, as well as cross-sectional associations between local and adjacent marijuana dispensary densities and marijuana hospitalizations.

**Methods**—We analyzed panel population data relating hospitalizations coded for marijuana abuse or dependence and assigned to residential ZIP codes in California from 2001 through 2012 (20,219 space-time units) to ZIP code demographic and ecological characteristics. Bayesian space-time misalignment models were used to account for spatial variations in geographic unit definitions over time, while also accounting for spatial autocorrelation using conditional autoregressive priors. We also analyzed cross-sectional associations between marijuana abuse/dependence and the density of dispensaries in local and spatially adjacent ZIP codes in 2012.

**Results**—An additional one dispensary per square mile in a ZIP code was cross-sectionally associated with a 6.8% increase in the number of marijuana hospitalizations (95% credible interval 1.033, 1.105) with a marijuana abuse/dependence code. Other local characteristics, such as the median household income and age and racial/ethnic distributions, were associated with marijuana hospitalizations in cross-sectional and panel analyses.

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**Contributors** Dr. Freisthler conceptualized the study, wrote sections of the introduction and discussion, and edited multiple drafts. Dr. Mair conducted analyses, interpreted results, and wrote a first draft of the manuscript. William Ponicki and Andrew Gaidus prepared data and edited multiple drafts. All authors contributed to and have approved the final manuscript.

**Conflict of Interest** No conflict declared.



**Conclusions**—Prevention and intervention programs for marijuana abuse and dependence may be particularly essential in areas of concentrated disadvantage. Policy makers may want to consider regulations that limit the density of dispensaries.

### Keywords

marijuana abuse; marijuana dispensaries; marijuana hospitalizations

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## 1. INTRODUCTION

The legal status and subsequent availability of marijuana for both medical and recreational use is rapidly changing in the United States. In 1996, California was the first state to legalize medical marijuana with the Compassionate Use Act, which allowed physicians to prescribe cannabis for medical purposes. Since then, 22 states and the District of Columbia have enacted similar laws. The vast majority of these laws allow marijuana to be sold through medical dispensaries. Despite the growing legal availability of marijuana for medical and recreational use, much remains unresolved about the relationships between marijuana use and related problems and the impacts of dispensaries on local communities (Gorman and Charles Huber, 2007; Lynne-Landsman et al., 2013).

Certain demographic groups are more likely to use marijuana for recreational and/or medical purposes. In California, more frequent marijuana users are more likely to be male, young adult, white, and have higher incomes (Freisthler and Gruenewald, 2014; Morrison et al., 2014). Medical marijuana users are also more likely to be male and white (O'Connell and Bou-Matar, 2007; Ogborne and Smart, 2000; Reiman, 2007; Swift et al., 2005; Ware et al., 2005), but are older than frequent users (mean around 40 years old) and have lower incomes (O'Connell and Bou-Matar, 2007; Ogborne and Smart, 2000; Reiman, 2007; Swift et al., 2005; Ware et al., 2005). Rates of marijuana abuse and dependence may be higher in areas with disproportionately greater numbers of these population subgroups, making them potential targets of prevention efforts to reduce costs related to marijuana abuse and dependence hospitalizations.

Some studies suggest that legalizing medical marijuana appears to be related to higher levels of use for adults and adolescents (Cerde et al., 2012; Harper et al., 2012; Wall et al., 2011), although states that legalize marijuana had higher rates of marijuana use before legalization—suggesting that norms around use of marijuana may be more lax in those states (Wall et al., 2011). However, these findings are not universal as other studies have found no difference in marijuana use among adolescents after enactment of medical marijuana laws (Khatapoush and Hallfors, 2004; Lynne-Landsman et al., 2013; Choo et al. 2014). No differences have been found in rates of marijuana abuse and dependence among marijuana users before and after enacting legislation in states that have liberalized marijuana policies in recent years (Cerde et al., 2012). Allowing medical marijuana to be distributed through dispensaries increases the likelihood of using marijuana in the past year and using marijuana more frequently (Freisthler and Gruenewald, 2014). Past-month marijuana use is higher in states that allow distribution of medical marijuana through store-front dispensaries (Pacula et al., 2013).

Very few studies have examined where dispensaries are located. Store-front dispensaries in Denver, Colorado tend to be located in neighborhoods with higher crime rates and a higher proportion of retail jobs (Boggess et al., 2014). In California, dispensaries were located in Census block groups with higher levels of marijuana use, lower median household incomes, higher percentages of male residents, and lower percentages of Asian American residents and residents aged 30 to 39 years (Morrison et al., 2014). Thus there is limited information that areas with some disadvantage (i.e., lower income, higher crime) have higher densities of dispensaries; however, how disadvantage and dispensary density are related to overall rates of marijuana abuse and dependence is unknown.

When considering the impacts of marijuana dispensaries on local use and abuse, about which little is known, the literature on alcohol outlets is potentially useful. Greater densities of alcohol outlets, another source of a potentially addictive substance, have been linked to a range of health consequences, including incidents of crime and violent assaults (Gorman et al., 2005; Lipton and Gruenewald, 2002; Livingston, 2008), drinking and driving (Ponicki et al., 2013), intimate partner violence (Cunradi et al., 2012), and other alcohol-related problems (Campbell et al., 2009; Freisthler et al., 2007). Alcohol outlets may increase availability, or areas of high alcohol outlet density may be characterized by other conditions which produce problems (e.g., low social capital, high deprivation) and density of outlets may be correlated with these conditions. Similar to the role of alcohol outlets in communities, marijuana dispensaries may increase local availability and subsequent use of marijuana and/or may be more likely to be located in socially disorganized neighborhoods.

There are several reasons to examine the impacts of medical marijuana dispensaries on local use using population-based geographic assessments. These methods allow us to address the spatial dependence of contiguous geographic units, without which there may be substantive bias in statistical tests of dispensary and other environmental effects. Furthermore, because dispensaries within an area may serve both local residents and customers from nearby areas and many areas have no dispensaries of their own, the spatial scale of dispensary effects may be larger than any single unit. Models that measure impacts only within local areas will therefore miss effects on marijuana use in neighboring areas, understating effects. These methods allow us to examine spatial spillover effects.

It is important for us to better understand the impacts of neighborhood ecology and marijuana dispensary density on use and abuse in California as an increasing number of states follow in California's footsteps and liberalize cannabis policies. Determining in what ways marijuana dispensaries function in roles similar to alcohol outlets and in what ways they differ is essential as other states and communities develop laws and local policies, such as zoning restrictions and limiting the number of dispensary permits. The purpose of this analysis is to first examine whether hospitalizations for marijuana abuse and dependence are related to community demographic and environmental conditions, and then to investigate cross-sectional associations between marijuana dispensary densities and hospitalizations in California.

## 2. MATERIAL AND METHODS

### 2.1 Data Sources and Variables

Annual data, including hospital discharges and Census-based registries, were aggregated over a 12-year period (2001 through 2012) across ZIP code polygon areas (ESRI, 2012) of California, for a total of 20,219 space-time units. Locations of marijuana dispensaries as of early 2012 were geocoded and aggregated to 1,702 statewide ZIP codes as defined in 2012. These data were used to conduct two population-level Bayesian analyses: (1) A space-time analysis of associations between marijuana abuse and dependence hospitalizations and ZIP code demographic and other characteristics, and (2) a cross-sectional analysis of associations between marijuana hospitalizations and marijuana dispensary densities.

**2.1.1. Marijuana abuse and dependence hospitalizations**—The primary outcome measure was the annual number of marijuana abuse or dependence hospitalizations per ZIP code, obtained from the California Office of Statewide Health Planning and Development patient discharge data. These records provide information on all discharges that result in at least one overnight hospital stay. We included discharges that had either a primary or secondary ICD-9 diagnostic code of 304.3 (cannabis dependence) or 305.2 (cannabis abuse). The number of such cases per year that required hospitalization with at least one overnight stay increased over the study period, from 17,469 in 2001 to 68,408 in 2012. The vast majority (>85%) of cannabis discharges were coded as abuse rather than dependence. In only 0.8% of cases was cannabis dependence/abuse the primary diagnosis; in the other 99.2% of cases the diagnosis was secondary to hospital discharge for some other medical or injury condition. The percent of primary diagnoses decreased over the study period, from 2.2% (n=427) in 2001 to 0.4% (n=294) in 2012. Each hospital discharge was linked to the ZIP code of the patient. 97.3% of all discharges included 5-digit patient ZIP codes—the remaining were homeless, lived in another state, were missing/unknown, or only provided ZIP codes masked to 3 digits due to small population sizes within their 5-digit ZIP code. These discharges were dropped from analyses.

**2.1.2. Marijuana dispensary density**—Locations of marijuana dispensaries were obtained from six different websites listing the information for these businesses in March–April, 2012. The six websites were chosen by conducting a comprehensive search of such databases available on the web and by asking dispensary owners where they advertise their services. These websites provide up-to-date information on locations of dispensaries, ensuring that we obtained information for newly opened dispensaries. Each dispensary was geocoded to its address and spatially joined to ZIP code polygons for the year 2012 (ESRI, 2012). Overall marijuana density estimates used in models were calculated as the number of dispensaries per square mile within each ZIP code. Dispensary densities in adjacent areas were also calculated. These densities were represented by the un-weighted averages of densities across ‘spatially lagged’ ZIP codes, those immediately adjacent to each ZIP code. Geographic adjacencies were defined as sharing a boundary or touching at a single point, allowing for a 0.5 meter tolerance to compensate for imprecision in boundary maps. The mean number of neighboring ZIP codes in 2012 was 5.6 (standard deviation 2.3), with six ZIP codes having zero neighbors.

**2.1.3. Demographic and environmental covariates**—Estimated annual ZIP code-level demographic data included percent white, percent Hispanic, percent African American, median household income (per \$10,000), age distribution categories (percent under age 19, 20–24, 25–44, 45–64), percent with less than a high school degree and percent with greater than a Bachelor’s degree, percent unemployed, and population density (per mile<sup>2</sup>). With the exception of income, these estimates were based on publically available inter-censal projections at the Census block group level supplied by Geolytics (Geolytics, 2011). Demographic variables were aggregated from Census block group boundaries up to year-specific ZIP codes. Because block groups are not nested within ZIP codes, demographic variables had to be estimated for block groups that cross ZIP code boundaries. In these cases, the block group demographic variables were weighted based on the portion of the captured block group centroid population that falls within each ZIP code. To account for spatially variant population growth, we linearly interpolated block population from 2000 to 2010 and used year-specific block populations when weighting demographic variables. Median household income data for 2000 were obtained at the block group level from the 2000 Census, while 2010 data were estimated using 2008–2012 averages from the American Community Survey. Inter-censal estimates were constructed by assuming that 2000–2010 changes were distributed across years in proportion to those of annual county-level income estimates (U.S. Census, 2014), while 2011 and 2012 estimates assumed equal proportional growth for all block groups within a county. These block-group income estimates were converted to 2012 dollars using the Consumer Price Index and reallocated to ZIP codes in the manner described above.

Other ZIP code characteristics included the overall hospitalization rate and the density of overall retail establishments. The overall hospitalization rate, calculated as the number of discharges regardless of diagnoses per 100 persons, was included as a covariate to control for differences in access to inpatient care. A measure of the density of overall retail establishments was derived from ZIP Code Business Patterns data (Census, 2013). Using North American Industry Classification System (NAICS) codes, counts of all “retail trade” (sectors 44, 45) and “accommodations and food service” (sector 72) establishments were tallied. Density was calculated as the number of retail establishments per 100 square miles of ZIP code area.

A measure of the geographic instability of a ZIP code’s population between consecutive years, calculated as the percentage of year-2000 Census block populations within a given year’s ZIP code definition that would not have fallen within the boundaries of the best-matched ZIP code in the prior year (range: 0–59%), was created. This instability measure tested the assumption that ZIP code boundary shifts did not substantively bias other effects estimates.

Roughly 2% of ZIP code polygons had population values of fewer than three residents, and these were assigned a minimal population of three to allow for non-zero population risks in all areas. Census-based rate variables (e.g., percent African American) were undefined in approximately 1% of ZIP codes and were thus assigned the California state average for the year. These missing Census values typically occurred in unpopulated areas, such as national forests.

## 2.2. Data Analysis

Panel analyses relied on a Bayesian Space-Time Misalignment Poisson model developed by Zhu et al. (Zhu et al., 2013). This model allows us to perform panel analyses using all ZIP codes in California over a period of 12 years despite frequent changes in the size and shape of these geographic units. This approach uses a separate conditional autoregressive (CAR) random effect for each year-specific map of spatial adjacencies to account for spatial autocorrelation, assumed to have mean zero and a common standard deviation. The model also allows for a second, separate, random effect that is not spatially autocorrelated.

The outcome measure is the annual count of marijuana abuse/dependence hospitalizations by ZIP code. Poisson models were used:

$$Y_{i,t}|\mu_{i,t} \sim \text{Poisson}(E_{i,t}\exp(\mu_{i,t}))$$

where  $Y_{it}$  represents the count of hospitalizations in ZIP code  $i$  during year  $t$  and  $E_{i,t}$  denotes the expected number of hospitalization visits under the assumption that statewide marijuana hospitalizations are distributed among ZIP codes in direct proportion to population. The log-relative risk,  $\mu_{i,t}$ , is modeled linearly as:

$$\mu_{i,t} = \alpha_t + X'_{i,t}\beta + \theta_{i,t} + \phi_{i,t}$$

This is a linear combination of fixed covariate effects and random effects which may take account of spatial and/or temporal correlation. Vector  $\alpha_t$  is a set of year-specific intercepts that control for statewide changes in marijuana hospitalization risks that are not explained by other covariates. Matrix  $X'_{it}$  contains space- and time-specific covariates and  $\beta$  is a vector of fixed-effects estimates of the impacts of those covariates.  $\theta_{i,t}$  and  $\phi_{i,t}$  denote the pair of random effects capturing spatially unstructured heterogeneity and CAR spatial dependence, respectively. Models included fixed effects for neighborhood demographics, overall hospitalization rates, population density, retail clutter, and ZIP code instability (misalignment). A similar model was used to estimate the impact of local and adjacent marijuana dispensaries on marijuana abuse/dependence hospitalizations, but this analysis included a single 2012 cross-sectional data set. Local and adjacent dispensary densities were entered simultaneously into the model.

Models were estimated using WinBUGS 1.4.3 software (Lunn et al., 2000). Uninformed priors were specified for all fixed and random effects. Models were allowed to burn-in for 50,000 Markov Chain Monte Carlo (MCMC) iterations, a sufficient number of iterations for all parameter estimates to stabilize and converge between two chains with different initial values. Posterior estimates were sampled for an additional 50,000 MCMC iterations to provide model results, until the ratio of the MC error to the standard deviation was less than 5%. Traces of MCMC iterations demonstrated good convergence for all parameters.

### 3. RESULTS

Table 1 presents descriptive statistics for ZIP codes in California from 2001 to 2012 (20,219 ZIP codes). The racial/ethnic distributions in average ZIP codes were 4.7% African American, 26.7% Hispanic, and 55.3% non-Hispanic white. The ranges of both population and square miles per ZIP code were large, with the resulting population density measure mean of 3,319 people/mile<sup>2</sup> (range: 0–56,482 people/mile<sup>2</sup>). There were 1,650 dispensaries in California in early 2012. The number of medical marijuana dispensaries per ZIP code ranged from 0 to 40, with an average of approximately one per ZIP code and 27.0% reporting at least one dispensary. The mean density of dispensaries in both local and adjacent ZIP codes was 0.22/mile<sup>2</sup>, with a larger range for local ZIP codes (0–11 vs. 0–6). The mean density of dispensaries in ZIP codes with at least one dispensary was 0.83/100 mile<sup>2</sup>. Overall, 65.6% of ZIP codes had a dispensary locally or in an adjacent spatial unit.

Table 2 shows results from the Bayesian Space-Time Misalignment Poisson model from 2001–2012 and presents posterior estimates of the effects of each fixed-effect variable, expressed as relative rates (calculated as  $\text{Exp}[\text{raw coefficient}]$ ). Each relative rate is calculated from the median estimate from the sampled posterior distribution and is followed in parentheses by the 95% credible interval from that distribution. Greater retail density, lower median household income, and lower population density were all associated with greater rates of marijuana hospitalizations. ZIP codes with a higher percentage of residents with greater than a Bachelor's degree had fewer marijuana hospitalizations. The CAR spatial random effect explained 93% of the overall error variance in the model, indicating that there is substantial spatial autocorrelation. Year-specific intercepts were included in all models. There was a large and steady increase in the rates of marijuana abuse/dependence hospitalizations from 2001 to 2012 even after controlling for demographic and other environmental covariates.

Cross-sectional marijuana dispensary density results are displayed in Table 3. An additional one dispensary per square mile was associated with a 6.8% increase in the number of marijuana hospitalizations (95% credible interval 1.033, 1.105). The spatial lag effect was not well supported. Results for other covariates were generally consistent with the space-time results presented in Table 2, except that the association for unemployment was negative in the cross-sectional analyses.

### 4. DISCUSSION

The density of local marijuana dispensaries is associated with a greater number of hospitalizations with a primary or secondary marijuana abuse/dependence code. Furthermore, other local characteristics, such as the median household income and age and racial/ethnic distributions, are associated with marijuana hospitalizations. These local characteristics do not fully explain the increase in hospitalizations over time, although we were unable to longitudinally measure dispensary density. This is the first analysis of the statewide impact of marijuana dispensaries on marijuana abuse and dependence, as well as the first look at population characteristics associated with hospitalization rates.

Increased availability of marijuana in ZIP codes with a higher density of dispensaries remains a plausible explanation for the increased hospitalizations in dispensary-dense areas. This cross-sectional association remains after adjustment for other characteristics of ZIP codes. Indicators of social disorganization were associated with hospitalizations in both the cross-sectional and panel analyses. The direction of causation remains open to debate, however. It is possible that marijuana dispensaries are more likely to locate in socially disorganized neighborhoods with higher underlying rates of marijuana use and abuse, or that the presence of these dispensaries increases local use, or perhaps both. Previous research suggests that some indicators of disorganization are related to locations of dispensaries (Bogges et al., 2014; Morrison et al., 2014) but more work is needed to fully understand this relationship.

We found some of the same characteristics to be related to marijuana use and dependence at the population level as in individual models of use for medical or recreational purposes (e.g., white populations; Freisthler and Gruenewald, 2014; Morrison et al., 2014; O'Connell and Bou-Matar, 2007; Ogborne and Smart, 2000; Reiman, 2007 ; Swift et al., 2005; Ware et al., 2005). Our population estimates suggest marijuana abuse and dependence occur at higher rates in lower income areas, similar to associations seen in individuals who use medical marijuana (O'Connell and Bou-Matar, 2007; Ogborne and Smart, 2000; Reiman, 2007 ; Swift et al., 2005; Ware et al., 2005). While this study cannot suggest inferences about individual use and likelihood of marijuana abuse and dependence, the congruence of findings across individual and population levels suggest these might be some important areas to direct future research.

A number of limitations need to be noted. Population models have the advantage that they can comprehensively identify aggregate effects across diverse populations living in many different neighborhood conditions. As an aggregate population analysis, however, it is not possible to illuminate the connecting theory that leads from a global assessment of exposures to marijuana dispensaries and other neighborhood conditions to the individual behaviors that are affected by these exposures. For this purpose, multilevel contextual data and analysis models are required. Thus, the individual behavioral mechanisms that underlie the observed effects remain to be explored further. Other limitations of the current analyses include the cross-sectional nature of dispensary information. We cannot assess whether the increase in the number and density of dispensaries across the 12 year period partially or fully explains the dramatic increase in the number of marijuana hospitalizations. However, this is the first opportunity to examine dispensaries at a statewide level, and these cross-sectional findings indicate that dispensary density matters and should be examined longitudinally once such data are available. Furthermore, the vast majority of hospitalization codes are secondary diagnoses. This is not particularly surprising since acute marijuana poisoning/ overdose is quite rare. Finally, the procedure used to estimate ZIP code demographic estimates from available block-group level projections will introduce some noise in these covariates, and this would be expected to bias the associated parameters toward zero. Despite this, the association between dispensary density and hospitalizations was well-supported.

As the first study to examine population characteristics related to marijuana abuse and dependence, more work is needed to understand the exact mechanisms underlying these relationships. Future research incorporating dynamic models of dispensary effects as they evolve may lead to greater understanding of these processes over both short- and long-term periods and at smaller scales of geographic resolution. This work suggests prevention and intervention programs for marijuana abuse and dependence should be targeted in areas of concentrated disadvantage (as measured using such economic factors as unemployment, income, and education). Despite medical marijuana being allowed by California, local jurisdictions can ban dispensaries outright or place restrictions on their locations (such as not near where child and youth populations spend time). States may also place other restrictions on who can purchase marijuana at dispensaries (e.g., adults 21 years or older) to reduce access to populations who may be vulnerable to abuse or dependence. States that are considering passing laws allowing medical or recreational use of marijuana might consider regulations that limit the density of dispensaries, particularly in disadvantaged areas, or encourage provisions for localities to make their own regulations (including bans) to prevent problems in areas at risk for high rates of marijuana abuse and dependence.

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### Highlights

- We examine marijuana dispensary density and marijuana hospitalizations
- We study marijuana hospitalizations and neighborhood ecology from 2001–2012
- Dispensaries were cross-sectionally associated with greater marijuana hospitalizations
- Indicators of concentrated disadvantage were associated with marijuana hospitalizations

Table 1

Descriptive statistics, ZIP codes in California 2001–2012 (n=20,219 ZIP codes)

	Mean	SD	Minimum	Maximum	Mean Change, 2012 vs. 2001
Population	21,630.46	21,834.58	3.00	126,941.40	1,353.19
Area (mile <sup>2</sup> )	93.47	247.91	0.01	3,805.23	-2.47
Percent age 0–19	26.06	6.71	0.00	70.67	-4.03
Percent age 20–24	6.94	2.78	0.00	48.48	-0.01
Percent age 25–44	27.12	6.93	0.00	100.00	-3.96
Percent age 45–64	25.71	6.34	0.00	100.00	2.98
Retail Clutter/mile <sup>2</sup>	24.76	96.11	0.00	2,246.50	0.46
Percent with less than high school degree	21.47	15.44	0.00	93.22	-0.27
Percent with greater than Bachelor's Degree	9.39	8.19	0.00	100.00	0.65
Median household Income (\$10,000)	6.74	2.86	0.00	24.23	0.02
Overall hospitalization rate (per 100 people)	22.22	228.78	0.00	14,800.00	-12.44
Percent African American	4.66	8.23	0.00	88.01	-1.24
Percent Hispanic	26.68	22.41	0.00	98.49	2.89
Percent white	55.29	25.33	0.00	100.00	-12.71
Unemployment (%)	9.67	9.56	0.00	100.00	7.16
Population Density (people/mile <sup>2</sup> )	3,319.39	5,477.06	0.01	56,482.36	101.37
ZIP code instability	0.60	3.27	0.00	59.42	
Cannabis abuse/dependence hospitalizations	21.71	31.87	0.00	441.00	29.63
<b>Marijuana Dispensary Densities (2012 only)</b>					
Number of dispensaries	0.97	2.64	0.00	40.00	
Dispensaries/mile <sup>2</sup>	0.22	0.87	0.00	15.48	
Spatially lagged dispensaries/mile <sup>2</sup>	0.22	0.55	0.00	5.58	

**Table 2**

Relative Rates (95% credible intervals) and Ln (Relative Rates), marijuana abuse and dependence hospitalizations, Bayesian Spatial Misalignment Models (n=20,219 ZIP codes)

	Relative Rate (95% credible interval)	Ln (RR)
<b>Demographic Characteristics</b>		
Percent age 0–19	1.023 (1.019,1.028) <sup>a</sup>	0.0225
Percent age 20–24	0.981 (0.977,0.987) <sup>a</sup>	-0.0187
Percent age 25–44	0.994 (0.992,0.997) <sup>a</sup>	-0.0057
Percent age 45–64	1.030 (1.025,1.034) <sup>a</sup>	0.0291
Retail Clutter/mile <sup>2</sup> (×100)	1.074 (1.062,1.086) <sup>a</sup>	0.0717
Percent with less than high school degree	1.001 (0.999,1.003)	0.0014
Percent with greater than Bachelor's Degree	0.992 (0.989,0.994) <sup>a</sup>	-0.0084
Median household Income (\$10,000)	0.879 (0.872,0.885) <sup>a</sup>	-0.1285
Overall hospitalization rate (per 100 people)	1.066 (1.061,1.071) <sup>a</sup>	0.0642
Percent African American	1.025 (1.023,1.026) <sup>a</sup>	0.0243
Percent Hispanic	1.003 (1.002,1.004) <sup>a</sup>	0.0032
Percent white	1.014 (1.013,1.015) <sup>a</sup>	0.0142
Unemployment (%)	1.001 (0.999,1.003)	0.0013
Population Density (people/mile <sup>2</sup> ) (×100)	0.897 (0.877,0.918) <sup>a</sup>	-0.1084
<b>Misalignment Effects</b>		
ZIP code instability	1.004(1.001,1.008)	0.0044
<b>Random Effects</b>		
	<b>Median (95% Credible</b>	
Spatial Random Effects (s.d. CAR process)	0.575 (0.560, 0.588)	
ZIP code-Level Random Effects (s.d.)	0.162 (0.144, 0.181)	
Proportion of error variance that is spatial	0.926 (0.907, 0.943)	

Iterations: 50,001–100,000

<sup>a</sup>Indicates findings that are well-supported by the data as evidenced by credible intervals that exclude one for relative risks

**Table 3**

Relative Rates (95% credible intervals) and Ln (Relative Rates), marijuana abuse and dependence hospitalizations, 2012 cross-sectional analysis with marijuana dispensary density (n=1,702 ZIP codes)

	Relative Rate (95% credible interval)	Ln(RR)
<b><u>Marijuana Dispensary Density</u></b>		
Dispensaries/mile <sup>2</sup>	1.068 (1.033,1.105) <sup>a</sup>	0.0655
Spatially lagged dispensaries/mile <sup>2</sup>	1.034 (0.949,1.123)	0.0339
<b><u>Demographic Characteristics</u></b>		
Percent age 0–19	1.022 (1.010,1.033) <sup>a</sup>	0.0221
Percent age 20–24	1.028 (0.983,1.068)	0.0272
Percent age 25–44	0.991 (0.984,0.998) <sup>a</sup>	–0.0086
Percent age 45–64	1.031 (1.023,1.039) <sup>a</sup>	0.0307
Retail Clutter/mile <sup>2</sup> (×100)	1.060 (1.019,1.101) <sup>a</sup>	0.0583
Percent with less than high school degree	1.004 (1.000,1.009) <sup>a</sup>	0.0044
Percent with greater than Bachelor's Degree	0.998 (0.992,1.005)	–0.0021
Median household Income (\$10,000)	0.863 (0.840,0.882) <sup>a</sup>	–0.1469
Overall hospitalization rate (/100 people)	1.806 (1.656,1.960) <sup>a</sup>	0.0046
Percent African American	1.022 (1.018,1.027) <sup>a</sup>	0.0218
Percent Hispanic	1.003 (0.999,1.006)	0.0027
Percent white	1.013 (1.010,1.015) <sup>a</sup>	0.0127
Unemployment (%)	0.988 (0.984,0.992) <sup>a</sup>	–0.0122
Population Density (people/mile <sup>2</sup> ) (×100)	0.862 (0.799,0.938) <sup>a</sup>	–0.0015
<b><u>Random Effects</u></b>		
	<b>Median (95% Credible Interval)</b>	
Spatial Random Effects (s.d. CAR process)	0.543 (0.502, 0.580)	
ZIP code-Level Random Effects (s.d.)	0.145 (0.072, 0.207)	
Proportion of error variance that is spatial	0.933 (0.861, 0.984)	

Iterations: 50,001–100,000

<sup>a</sup>Indicates findings that are well-supported by the data as evidenced by credible intervals that exclude one for relative risks

## STAFF RESPONSE

Good afternoon Mr. Tingskou,

Thank you for your inquiry and comments, which was forwarded to me for a response and will be included in the staff report for the application for 1420 Johnston Road.

As we just discussed on the phone, while I appreciate your comments, even though the initial approach to regulating cannabis stores in White Rock was based on a 'single store' concept, this was never presented as preventing future proponents from making an application requesting approval for the same use on their property, or preventing Council from reconsidering or changing bylaws that restrict the number of cannabis stores. Council cannot be so fettered in making decisions on future applications, and it is the right of property owners to make such applications.

Further, at the same night as the public hearing for the three individual cannabis store applications, including your own, there was also a public hearing for a zoning amendment bylaw that would enable up to three cannabis stores in the Town Centre via a Temporary Use Permit, which was later adopted by Council on the same night as your permit was issued, and is currently in the Zoning Bylaw. While your Temporary Use Permit is currently the only issued permit for this use in the Town Centre, I believe you are aware of this provision in the Zoning Bylaw which would enable two more cannabis stores, if approved by Council.

If you have any questions on the above, please let me know.

Sincerely,

**CARL ISAAK, RPP, MCIP**

**Director, Planning and Development Services, City of White Rock**

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**EMAIL FROM A LITTLE BUD (KATHLEEN WARE / RANDY TINGSKOU)**

**Sent:** May 3, 2021 12:52 PM

**Subject:** Inquiry and potential objection by 'A Little Bud ', the sole TUP Cannabis Store under the City of White Rock's current 'One store Pilot Project' to the approval of the Application by Seed & Stone for a Temporary Use Permit at 15053 Marine Drive and Pub...

Good afternoon Honourable Mayor Walker,

I am sending this email on behalf of Randy Tingskou, owner and principal operator of A Little Bud situated at 1484 Johnston Road.

I am writing to you in my capacity as one of the local owners and the Principal Operator of "A Little Bud" Cannabis Store that operates, based on a 3 year (renewable term) Temporary Use Permit (TUP) under a City "Pilot Project "under the existing City By laws as the permitted and approved 'one single Cannabis Retail store' at 1484 Johnston Rd. in the City of White Rock since August 2020.

I wrote previously to you in early April 2021 about this issue because the City received an application for a TUP from Seed & Stone in October of 2020 to establish a Non-Medical Cannabis Retail Store at 15053 Marine Drive and at the time a Public Information Meeting for a second store at 1421 Johnston Road was to be held April 2021. I understand that the application at 15053 Marine Drive has proceeded through the City's regulator process to a 3<sup>rd</sup> and Final reading March 8<sup>th</sup> 2021, some 7 months after our opening.

I would like to know if it is proposed to allow these stores to commence operations by opening to the public on or before the expiry of our TUP in or about August 2022 as the sole permitted store under the existing bylaws and, it is respectfully submitted, contrary to those bylaws, and if so to protest the proposed operation/opening of the above additional Cannabis stores based on the representations , requests , promises and assurances made to us during the course of and after the approval of our application as the sole store under the three year pilot project and that we relied upon in putting together , modifying and finalizing our application and store to meet all City requirements for the full period of our permit .

Both before and throughout the application process it was clear that the city was proposing a 'limited and gradual approach' to the establishment of cannabis stores and applicants were encouraged to increase the overall store size and the amount of parking proposed to meet expected demand as the only store available, which we did, relying on those requests and assurances from the City and staff based on the fact that we would be the sole store for the 3 year TUP. We relied upon these statements and assurances in planning, leasing and financing our operation and believed our application would be prejudiced if we did not do so. We are now very concerned that the City might now be renegeing on these promises and assurances by allowing not one but two further stores to open, despite the still recent Pilot Project and in the near future including one nearby.

We want to stress that we have no problem having competition once our promised 3-year TUP Pilot Project ends but we still object to the proximity of one of the proposed new stores based on issues of 'clustering' that has been raised in the past in relation to the establishment and location of such stores in one area, as per the previously attached Appendix that specifically addresses that issue.



Our current objection is not only that it is proposed to locate so close to our store as to offend the 'clustering' rule concerns but most importantly that it is prior to the expiry of the 3 year "Pilot Project" TUP involving our store as the single store taking into account the investments made in reliance upon the process outlined above.

Specifically, 'A Little Bud' was granted its TUP on February 10, 2020 having applied in July of 2019 and, once all other City requirements were met, was able to open its doors to the public in August of 2020. We understood that we would be the sole Pilot Project White Rock Cannabis Retail Store until either February when approved or August 2022 (approximately 3 years) when able to open and that the City staff would be evaluating us as the Pilot Project before possibly moving ahead with additional stores, if at all at some time in the future thereafter the 'limited and gradual approach'.

Prior to making our Application, we were aware of the various discussions that went on at City Council commencing in June of 2018 and, in particular, the motion of June 25<sup>th</sup>, 2018 where Council voted to accept 'Option 2' of the various options presented and that specified **'a single store pilot project in the Town Center'** and then further discussion in July of 2018 where it was recommended that the Zoning bylaw be amended to regulate **'a single cannabis retail store pilot project'** using a 'limited and gradual approach' to introducing cannabis retail into White Rock through the use of a TUP and a single store. We understood that in February of 2019 Council, despite the suggestion by staff of allowing more than one store, again voted to confirm only one temporary use permit Pilot Project application for White Rock and those amendments to the bylaw were approved on March 13<sup>th</sup>, 2019.

Subsequent to our application we held a Public Information meeting in September of 2019 and on December 2nd 2019 the three applications pending were presented by staff to Council and the minutes once again reflect the prior decision to use a Temporary Use Permit (TUP) with only one Cannabis store in the White Rock Town Centre in accordance with the current bylaw and taking a 'limited and gradual approach'. The applications were reviewed in January of 2020 including public hearings and then on February 10<sup>th</sup>, 2020 that sole permit was granted to 'A Little Bud'.

In summary, in making our application we relied significantly on the fact that the City of White Rock had indicated that it was planning to have only one store as a pilot project with a temporary use permit for up to three years. Both prior to our application and thereafter, we consulted with City staff and made modifications such as increasing the size of our location and the amount of parking etc. because we were told as the only store, we would need more space to service the White Rock public and more parking. In other words, we relied upon these representations and statements of Council and staff and took steps to accommodate their requests at some financial cost.

We now see that the City is currently entertaining multiple applications from another company to establish 2 more stores in White Rock despite the current By law and Pilot Project and understand that the application for one store was given third and final reading on March 8, 2021 is located at 15053 Marine Dr which is down by the water and that the Public Information Meeting that was held April 15, 2021 is for the application at 1420 Johnston Rd, 41 meters away from our store (PID to PID).

Consequently, we write to inquire as to whether or not the City not only proposes to enable these new stores to operate prior to the expiry of our TUP 'Single Store Pilot Project' despite its previous position, promises and assurances and also to enable one store to locate in very close proximity to our store leading to additional clustering concerns.

I instructed counsel to attend the public information meeting and my lawyers were specifically unable to speak or hear the participants. I felt that it was an unfair online proceeding as the supporters of these

two new stores were all able to participate but my lawyer could not speak or interact on the call or ask questions. I do not believe that the town hall process was done fairly.

May we please hear from you in this regard at your earliest opportunity,

Yours Truly,

Randy Tingskou

A Little Bud

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**Kathleen Ware**  
Administrative Manager  
A Little Bud  
[www.alittlebud.ca](http://www.alittlebud.ca)