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Dear Reference Attorney and DCC Staff,

On behalf of *Getting it Right from the Start: Advancing Public Health & Equity in Cannabis Policy*, a program of the Public Health Institute, a 501c3 that has served California to promote public health for the past 55 years, we respectfully submit the comments below for your consideration.

**On use of emergency regulations:**

While we understand the need to better organize the cannabis regulations, the inclusion of changes in the emergency regulations that weaken public health protections cannot be justified as responding to any emergency need. Such changes should, of necessity, be subject to a full and transparent public regulatory process. Weakening, or elimination of requirements for verifying age identification on delivery of products, for example, cannot possibly be considered as emergencies.

The most recent findings from the National Survey of Drug Use and Health (NSDUH) identified significant increases in cannabis use rates among California's teens.<sup>1,2</sup>

- Estimated past month cannabis use rates among 12-17 year-olds in California rose from 6.93% in 2016-2017 to 7.05% in 2017-2018, and then jumped to 8.85% in the 2018-2019 findings, a **28% relative increase**.<sup>3,4</sup>

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<sup>1</sup> Center for Behavioral Health Statistics and Quality. *2018-2019 National Survey on Drug Use and Health: Model-Based Prevalence Estimates*; Rockville (MD): SAMHSA; 2020. Retrieved from: <https://www.samhsa.gov/data/sites/default/files/reports/rpt32805/2019NSDUHsaeExcelPercents/2019NSDUHsaeExcelPercents/2019NSDUHsaePercents.pdf>

<sup>2</sup> Center for Behavioral Health Statistics and Quality. *National Survey on Drug Use and Health: Comparison of 2016-2017 and 2017-2018 Population Percentages*; Rockville (MD): SAMHSA; 2019. Retrieved from: <https://www.samhsa.gov/data/sites/default/files/reports/rpt23236/NSDUHsaeShortTermCHG2018/NSDUHsaeShortTermCHG2018.pdf>

- Estimated past year cannabis use rates among 12-17 year-olds in California rose from 13.30% to 13.82% between the 2016-2017 and 2017-2018, and then jumped to 15.82% in the 2018-2019 findings, a 19% relative increase.<sup>3,4</sup>

National findings from Monitoring the Future just released in September 2021 continue to demonstrate rising rates of daily use in young adults. These findings are the real emergency and highlight the urgent need for regulatory strategy to balance the effort to combat the illicit market with the need to protect youth and public health, a concern that has been left on the back burner in California's initial cannabis regulatory process to build a legal market.

### **On elimination of mention in regulation of important provisions of Proposition 64**

Mention of certain important provisions to protect youth and public health of Proposition 64, previously reiterated in regulation, were eliminated from the proposed emergency regulations. The reason for this is unclear. With this change, licensees, local jurisdictions, and others may grow less aware of these important requirements if they are not in the regulations. These include, for example, the required buffer between licensees and schools.

### **Specific Recommendations:**

#### **Positive changes:**

The proposed text of regulations contains certain important and valuable provisions for structuring the process of legalization. Including:

- *§ 15041.1. Branded Merchandise.*

The consolidated regulations add a requirement for the licensee number to appear on merchandise.

- *§ 5416. Delivery to a Physical Address (d): A delivery employee may deliver to any jurisdiction within the State of California.*

This previous section has been removed, clarifying the authority of California cities and counties in determining the legality of commercial cannabis activities within their jurisdictions.

- *§ 15040. Advertising Placement.*

The regulations remove the previous regulatory language which violated the intent of Proposition 64 in prohibiting advertising or marketing on a billboard or similar advertising device located on an Interstate Highway or State Highway which crosses the border of any other state. We appreciate the removal of this language rejected by the courts.

#### **Problematic areas:**

There are, however, several problematic areas in the proposed text of regulations that still need to be revised or strengthened.

## Areas where the consolidated regulations weakened existing regulations:

- *§ 15026. Premises Location.*

The consolidated text removes the language previously in §15026 “Premises Location” requiring that licensed premises be located at least 600 feet from schools, day care centers or youth centers, which is a requirement of Proposition 64/MAUCRSA (Chapter 5, Section 26054), albeit one that can be modified locally. Since sales of adult-use cannabis are prohibited to individuals under age 21, and neurological development is not mature until closer to age 25, not only should the DCC maintain a required buffer zone for the location of premises they license under this division, but it should also be increased to 1,000 feet and extended to include community colleges and universities, given that the majority of students may be under age 21. We are unclear on the purpose served by removing the provision from regulations.

- *§ 15041.1. Branded Merchandise; § 15418. Cannabis goods carried during delivery; & § 15407. Sale of non-cannabis goods.*

The consolidated regulations weaken §15041.1 by removing the requirement for Department approval of non-cannabis branded merchandise, replacing those checks with a vague statement that the merchandise shall not be designed to appeal to anyone under 21. Not only that, but the proposed regulations expanded the potential non-cannabis branded merchandise that can be sold. Retailers can now sell the branded merchandise of any licensee, and deliverers can carry cannabis accessories, branded merchandise of any licensee, or promotional materials in the delivery vehicle.

Allowing expansion of branded merchandise will contribute to the growing use of cannabis by teens. A recent study post legalization in 6 states found that adolescents who owned/were likely to own branded merchandise had nearly 23 times the odds of weekly use and cannabis use disorder.<sup>3</sup>

First, we recommend that non-cannabis **branded merchandise not be allowed for sale** by a cannabis licensee, nor can its provision be conditioned on sale of any cannabis good. Cannabis brands should be clearly limited to cannabis goods and not contribute to social normalization by branding clothing, water bottles or other non-cannabis products for sale on the premises of a licensee.

However, if branded merchandise is allowed, we recommend that cannabis licensee branding, including logos, trademarks or names, **not be used or licensed for use on clothing, toys, games, or game equipment**, or other items typically marketed to or used by persons under the age of 21 or attractive to children or youth. Further, the lack of an explicit definition of “attractive to children or youth” or “appeal” to those anyone under 21 leaves marketers without clear instruction and disables objective assessment of compliance. We recommend prohibiting (1) images depicting a cartoon, human or any other animate creature including, without limitation, an insect, toy, fruit, vehicle, or robot, images of a candy or other food resembling a non-cannabis consumer product of a type that is typically consumed by, or marketed to, children or youth, (2) text referring to a

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<sup>3</sup> Trangenstein PJ, Whitehill JM, Jenkins MC, Jernigan DH, Moreno MA. Cannabis Marketing and Problematic Cannabis Use Among Adolescents. *J Stud Alcohol Drugs*. 2021 Mar;82(2):288-296. PMID: 33823976.

cartoon, or any other animate creature including, without limitation, an insect, toy, fruit, vehicle or robot, (3) any images, characters, or phrases that closely resemble images, characters, or phrases commonly used to advertise to children; (4) images of actors or human characters who appear to be, or are, under age 21; or (5) images of celebrities a reasonable person would understand to be appealing to youth.

Finally, any branded merchandise (hats, T-shirts, pens, etc.) using the name of a cannabis business or brand, cannabis, or a cannabis product should be required to carry a mandatory warning box described above in at least the size of the business, brand or product name whichever is largest.

- *§ 15403. Hours of Operation.*

This section used to limit hours of operation for retailers to between 6:00 a.m. Pacific Time and 10:00 p.m. Pacific Time but is now missing. In general, late-night hours may increase risk of robberies, and late-night purchases are more likely to be combined with consumption and associated with accidents; limiting hours of operation for alcohol outlets has been found to reduce negative effects of alcohol consumption. Parts of Colorado only allowed cannabis sales until 7pm, Oregon uses 8 am to 10 pm, and many jurisdictions in California (including Berkeley, Long Beach, Humboldt County, Sacramento, San Diego, and San Jose) currently limit retail hours. **We recommend reinserting regulations on hours of operation and setting maximum hours of 8 am to 8 pm.**

- *§ 15404. Retail Customers & §15418. Cannabis goods carried during delivery.*

Section 15404 required age and identity verification procedures prior to selling cannabis goods to individuals, including acceptable forms of identification, but is now missing. In addition, §15418 makes no mention of verifying identity and age upon delivery. Retailers should be required to use **ID scanning technology** to verify age and immediately identify fake IDs, in addition to a traditional visual inspection to verify the ID matches the customer. This kind of technology is increasingly less costly and less burdensome. For example, New York state is currently piloting the use of a smartphone app for identifying invalid IDs in bars; the app, called “Law ID”, has tested at 99.9% accuracy has a commercial version currently available.<sup>4</sup> **We recommend reinserting regulations on verifying age and identity of retail customers and requiring use of ID scanning technology.**

- *§ 15040. Advertising Placement*

The consolidated regulations have removed language supporting the Proposition 64 restriction on advertising or marketing cannabis goods on an advertising sign within 1,000 feet of a day care center, school providing instruction in kindergarten or any grades 1 through 12, playground or youth center. While this restriction continues in the law, we are unclear as to the reason for its exclusion from regulation. There is now no language regulating the placement of outdoor signs.

We applaud that these regulations have removed the language allowing advertising on a billboard outside a 15-mile radius of the California border on an Interstate Highway or a State Highway that crosses the California border, which was held by the courts to be in violation of Proposition 64,

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<sup>4</sup> <https://cbs6albany.com/news/local/new-york-first-state-to-test-new-app-busting-underage-drinkers-using-fake-ids>

We also strongly encourage the addition broad language requiring rotating health warnings on advertisements, which would include but not be limited to billboards.

- *§ 15040. Advertising Placement (a) (1) – (3)*

The new regulations revised the definition of advertising that is attractive to children, both strengthening and weakening the protection of youth. Defining content that is attractive to youth but not to those over age 21 is critical to guiding marketers to avoid unintentionally targeting minors. We applaud the addition of the specific restrictions for advertising imitation of candy packaging or labeling or use of the terms, “candy”, “candies” or variants in spelling. However, the new regulations removed other useful terms, including objects such as toys and inflatables, and movie characters. In the new regulations, the addition of the qualifier in §15040(a) (3)(B): “that are popularly used to advertise to children” now suggests to marketers that any images, characters or phrases that may not be popularly used to *advertise* to youth, but are typically used or consumed by youth, are allowed.

**We recommend using a definition based on a systematic review<sup>5</sup> of the scientific literature on youth perceptions of advertising for alcohol, tobacco and food, which found specific content to which minors are particularly susceptible due to their unique developmental stage, propensity for high-risk behaviors, and relative inexperience with consumption of alcohol and tobacco: **Attractive to youth includes advertising that (1) mimics advertising of a non-cannabis consumer product of a type that is typically consumed by, or marketed to children or youth; (2) depicts a cartoon, or any non-human animate creature including, without limitation, an insect, toy, fruit, vehicle or robot, (3) depicts or describes candy, baked goods, or other food typically marketed to youth; (4) uses actors or human characters who appear to be, or are, under age 21; or (5) or includes celebrities a reasonable person would understand to who appeal to youth.****

- *§ 15040. Advertising Placement. (a) (4)*

The proposed regulations removed the restriction of advertising “giveaways of any type of products, including “non-cannabis products,” replacing it with “cannabis accessories.” While the language of §15407 limits retailers from *selling* any non-cannabis product, these new regulations seem to allow retailers to give away, and to advertise giving away, any type of branded merchandise or non-cannabis product. This represents a significant weakening of protection of youth from commercial promotion practices.

Prop 64 specifies that “no licensee shall sell marijuana or marijuana products at less than the cost thereof... or to give away any article or product for the purpose of injuring competitors or destroying competition.”(26052(a)(6).

- *§ 15041. Age Confirmation in Advertising.*

To ensure avoiding exposure of minors, no initial direct communication through any form, including in-person, telephone, physical mail, or electronic should be unsolicited, after which, age

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<sup>5</sup> Padon AA, Rimal RN, DeJong W, Siegel M, Jernigan D. Assessing Youth-Appealing Content in Alcohol Advertisements: Application of a Content Appealing to Youth (CAY) Index. *Health Commun.* 2016;0(0):1-10. doi:10.1080/10410236.2016.1250331

affirmation to verify the recipient is 21 years of age or older should occur. For example, recently, a mailer was delivered, seemingly without any age verification, to households within Alameda County advertising 40% off membership to the Nugg Club, a cannabis subscription service. One of our team member's 6-year-old son saw the ad in the stack of mail and asked what all the colorful products were.

- *§ 15042 Age Verification*

Verification of age for purposes of accessing advertising, internet purchasing, or delivery services of cannabis should require use of an independent third-party age and identity verification site such as those recommended by the FDA to prevent minor access to electronic nicotine delivery systems.<sup>6</sup> Currently most cannabis websites simply require affirmation that the visitor is over 21.

- *§ 17402. Labeling Requirements. General provisions.*

These consolidated regulations diluted the already weak labeling requirements, nearly invisible in 6-point font, by adding that the required label information can now be located such that it is “easily legible through the outermost container or wrapper.” Further, while §17402(c) added language requiring that all required label information shall be located on the outside container or wrapper of the finished product to be sold at a retailer, which would have been an improvement, §17406(c) seems to indicate that some of the most important information, including the warning statements, do not need to meet this requirement. Warning statements are only effective when consumers can readily see them, and if they are hidden in a detachable accordion-style label they will be useless. Size matters, for example, an analysis of more than a thousand print advertisements concluded: ‘The pictorial is superior in capturing attention, independent of its size. The text element best captures attention in direct proportion to its surface size.’<sup>7</sup>

- *§ 17410. Universal symbol.*

The proposed regulations allow an even smaller symbol for a cannabis vape cartridges “in a size no smaller than ¼ inch wide by ¼ inch high.” We recommend specifying this allowance is limited to only the very small cartridges that cannot accommodate the symbol size typically required.

- *§ 15019. Excessive Concentration.*

§15019 used to address concerns with excessive concentration of cannabis retailers, as defined in 26051 (c) of Proposition 64 but is now missing from the regulations. Legalizing cannabis without creating an excess density of cannabis outlets, or an excess of sites concentrated on vulnerable communities as has traditionally occurred with tobacco and alcohol outlets, is a critically important part of getting cannabis legalization right. Our recent study of use during pregnancy in Kaiser patients in Northern California found that such use grew in direct proportion to the number of

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<sup>6</sup> FDA. Enforcement Priorities for Electronic Nicotine Delivery Systems (ENDS) and other Deemed Products on the Market without Premarket Authorization (Revised). Guidance for Industry. FDA. April 2020. <https://www.fda.gov/media/133880/download>

<sup>7</sup> Pieters, R & Wedel, M (2004) Attention capture and transfer in advertising: brand, pictorial, and text-size effects. *J Mark* 68, 36–50.

cannabis retailers within a 15 minute drive from the pregnant woman's home.<sup>8</sup> A recent study found that higher dispensary density in states with legal cannabis laws was associated with higher likelihood of youth ages 14-18 experimenting with cannabis vaping and edibles (OR<sub>vaping</sub>: 2.68, 95% CI: 2.12, 3.38; OR<sub>edibles</sub>: 3.31, 95% CI: 2.56, 4.26). Even density of legal cannabis dispensaries as low as 1/100,000 residents were associated with increases.<sup>9</sup> Similarly, a review of studies of tobacco retailer density and adolescent smoking found that tobacco retailer density and proximity were correlated with adolescent lifetime smoking, past 12-month smoking, past 30-day smoking, and susceptibility to smoking.<sup>10</sup> Studies have consistently found a relationship between greater alcohol outlet density with increased alcohol consumption and related harms, including medical harms, injury, crime, and violence.<sup>11</sup> Alcohol outlet density has been found to be highly relevant to the amount of alcohol teens consume and therefore to teens' impaired driving. Policies such as those regulating the age of bartenders, sellers, or servers, and social host civil liability laws, do not appear to have the same impact on teens' alcohol-related crash incidence as other types of policies such as restricting alcohol outlet density.

Once licenses are issued, as we know from years of tobacco and alcohol experience, it is extraordinarily difficult to revoke them, as businesses have invested in their creation. Permitting excessive outlet density to occur from the start represents clear negligence in public health protection considering decades of experience that provide extensive evidence of probable harm.

**For that reason, we believe the proposed regulations should under no circumstances allow an unlimited number of licenses.** The longer-term decision on optimal density to reduce or eliminate the illegal market while minimizing harm from a legal market should be taken only after careful study and increased gradually if appropriate. Our California Cannabis Local Laws Database shows that in the laws of California local jurisdictions passed through 1/1/2020, 113 of the 161 cities and counties which allow storefront dispensaries capped the number of dispensaries, averaging 1:19,222 residents, a ratio that would yield 2,080 licenses if extended statewide. **We recommend that DCC propose an initial cap at no more than 1,500 retailer licenses issued statewide, and no more than 1:19,000 inhabitants in any county, since some counties and many cities have not legalized and less than 2/3<sup>rd</sup>s of the population reside in areas legalizing sale. We also recommend that there be a distance of at least 1,000 feet between licensed retailers.** Excessive licensing in this first period could lead to irreversible harms in some communities. The previous regulations (§5019) were also insufficient in that they had no absolute standard in relation to population, only in relation to other census tracts in the same county or county rules, if these exist. Local government needs time to learn and put cannabis policies in place without the risk of outlet flooding or “fait accompli” resulting from lax state-level regulation. The goal should be to provide sufficient legal access to safer cannabis without creating so many retailers that aggressive

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<sup>8</sup> Young-Wolff KC, Adams SR, Padon A, Silver LD, Alexeeff SE, Van Den Eeden SK, Avalos LA. Association of Cannabis Retailer Proximity and Density With Cannabis Use Among Pregnant Women in Northern California After Legalization of Cannabis for Recreational Use. *JAMA Netw Open*. 2021 Mar 1;4(3):e210694. doi: 10.1001/jamanetworkopen.2021.0694. PMID: 33662131; PMCID: PMC7933995.

<sup>9</sup> Borodovsky JT, Lee DC, Crosier BS, Gabrielli JL, Sargent JD, Budney AJ. (2017). U.S. cannabis legalization and use of vaping and edible products among youth. *Drug Alcohol Depend*. 0(0). doi:10.1016/j.drugalcdep.2017.02.017.

<sup>10</sup> Gwon SH, DeGuzman PB, Kulbok PA, Jeong S (2017). Density and Proximity of Licensed Tobacco Retailers and Adolescent Smoking. *J Sch Nurs*. 33(1):18-29. doi: 10.1177/1059840516679710.

<sup>11</sup> Grubestic TH<sup>1</sup>, Pridemore WA, Williams DA, Philip-Tabb L. (2013). Alcohol outlet density and violence: the role of risky retailers and alcohol-related expenditures. *Alcohol & Alcoholism*, 48(5):613-9. doi: 10.1093/alcalc/agt055. Epub 2013 Jun 23.

competition to survive requires pushing up population cannabis consumption and cannabis use disorder.

### Three areas where the state cannabis advisory committee made specific recommendations that were not yet addressed:

- *§ 15040. Advertising Placement (a)(1) Shall only be displayed after a licensee has obtained reliable up-to-date audience composition data demonstrating that at least 71.6 percent of the audience viewing the advertising or marketing is reasonably expected to be 21 years of age or older*

This rule as written, is adopted from alcohol industry self-regulatory guidelines<sup>12,13</sup> and research has found them to be wholly inadequate to protect youth from advertising exposure. A report from the National Research Council (NRC) and Institute of Medicine (IOM) recommended a minimum 85% adult market threshold; the remaining 15% reflects the proportion of U.S. youth between the ages of 12 and 20, who comprise the young people most at risk of initiating substance use. The NRC/IOM reported that this as the standard would preclude alcohol advertising on only 34.0 percent of television programming if the base included children ages 2 and above, and 19.2 percent of programming if the base were limited to person age 12 and above.<sup>14</sup> **The State Advisory Commission already approved recommending the increase in the audience threshold to match the IOM recommendation of 85%;** it is unclear if the legislature received this recommendation. We recommend using this more stringent youth exposure threshold. Further, the definition should specify “reliable, up-to-date, *local* audience composition data.” It is the local market data which needs to be assessed, not national, as research in alcohol advertising has shown there is considerable variation in audience composition across locales and relying on national data has resulted in overexposure of youth to harmful advertising.<sup>15</sup>

- *THC Potency*

In fall of 2020 the Cannabis Advisory Committee called for the creation of a scientific task force to review the literature on the harms and benefits of increasing potency of cannabis and cannabis products and make specific recommendations for regulation. Nevertheless, almost a year later there has been no action on this important recommendation.

Over the last quarter of a century, concentration of tetrahydrocannabinol, the main psychoactive component of cannabis, has been systematically increased from approximately 3-4% to levels as high as 28% or more in cannabis flower. In addition to high potency flower, there are increasing numbers of ultra-high potency concentrates whose safety is of deep concern. Within two years of legal sale in Washington, potent cannabis concentrates accounted for 21% of the entire market and had a mean potency of 69% THC. Some of these products contain over 90% THC by weight. Higher potency cannabis has been associated with greater risk of psychoses and schizophrenia as

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<sup>12</sup> Distilled Spirits Council of the United States. (2011). *Code of Responsible Practices for Beverage Alcohol Advertising and Marketing*. Washington, DC.

<sup>13</sup> Beer Institute. (2011). *Advertising and Marketing Code*. Washington, DC. <http://www.beerinstitute.org/assets/uploads/BI-AdCode-5-2011.pdf>.

<sup>14</sup> National Research Council and Institute of Medicine. (2004). *Reducing Underage Drinking: A Collective Responsibility*. Washington, D.C.: National Academies Press.

<sup>15</sup> Jernigan, D., Ostroff, J., & Ross, C.J. (2005). Alcohol Advertising and Youth: A Measured Approach, *Journal of Public Health Policy*, 26; 312-325



well as increasing cannabis use disorder.<sup>16,17,18</sup> The U.S. Surgeon General has warned that the risks of physical dependence, addiction, and other negative consequences increase with exposure to high concentrations of THC and younger age of initiation and that higher doses of THC are more likely to produce anxiety, agitation, paranoia, and psychosis.<sup>19</sup> Furthermore, research over the past 100 years to the current day has found an association between cannabis use and psychosis and schizophrenia,<sup>20</sup> including a major assessment of the science by the National Academies of Science, Engineering and Medicine.<sup>21</sup> The growing diversification of products and the increasing potency of those products are of serious concern.

The states of Washington and Colorado recently carried out studies to analyze the impact of increasing potency. More recent laws in several states have sought to address the issue of excessive potency and the US Senate called for urgent study of this issue.

Specifically, we recommend capping potency of concentrates allowed for sale at 50% THC, requiring standardized 5 mg metered dosing for inhaled products, and limiting potency of flower to 20% THC, at least until such time as an expert body, exempt from conflicts of interest, provides further recommendations to the state. Quebec capped concentrates at 30% THC.

These emergency regulations continue to omit any significant action on this issue. This is perhaps the single most dangerous omission in California's regulatory framework. One which we expect will have a significant negative impact on the incidence and severity of serious mental illness. Costs to the state, and on the need for substance use treatment. While the optimal level at which to limit potency may not be fully clear, what is clear is that to place no limit poses unacceptable public health risk.

- § 17408. *Labeling Restrictions.*

We recommend that no **health-related statements** be allowed in the packaging, labeling, or advertising of cannabis goods. The State Cannabis Advisory Committee passed a motion recommending that adult-use cannabis should not be allowed to make health claims in advertising on 03/01/2018. Given the absence of any legal and verifiable framework for identifying the veracity of such claims, medicinal cannabis uses should be guided by the medical knowledge of the prescribing physician or professional based on science. Adult use cannabis should especially not be marketed or advertised as therapeutic. Claims in relation to being "natural" or to potency other than factual statements of THC or CBD content should also not be allowed in either

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<sup>16</sup> Freeman TP et al. Changes in cannabis potency and first-time admissions to drug treatment: a 16-year study in the Netherlands. *Psychological Medicine* <https://doi.org/10.1017/S0033291717003877>

<sup>17</sup> Di Forti M, Quattrone D, Freeman TP, Tripoli G, Gayer-Anderson C, Quigley H, Rodriguez V, Jongsma HE, Ferraro L, La Cascia C, La Barbera D, Tarricone I, Berardi D, Szöke A, Arango C, Tortelli A, Velthorst E, Bernardo M, Del-Ben CM, Menezes PR, Seltén JP, Jones PB, Kirkbride JB, Rutten BP, de Haan L, Sham PC, van Os J, Lewis CM, Lynskey M, Morgan C, Murray RM; EU-GEI WP2 Group. The contribution of cannabis use to variation in the incidence of psychotic disorder across Europe (EU-GEI): a multicentre case-control study. *Lancet Psychiatry*. 2019 May;6(5):427-436. doi: 10.1016/S2215-0366(19)30048-3. Epub 2019 Mar 19. PMID: 30902669; PMCID: PMC7646282.

<sup>18</sup> Johnson-Ferguson L, Di Forti M. From heavy cannabis use to psychosis: is it time to take action? *Ir J Psychol Med*. 2021 May 27:1-6. doi: 10.1017/ipm.2021.33. Epub ahead of print. PMID: 34039454.

<sup>19</sup> Office of the Surgeon General, U.S Surgeon General's Advisory: Marijuana Use and the Developing Brain. Available at: [hhs.gov/surgeongeneral/reportsandpublications/addiction-and-substance-misuse/advisory-on-marijuana-use-and-developing-brain/index.html](https://www.hhs.gov/surgeongeneral/reportsandpublications/addiction-and-substance-misuse/advisory-on-marijuana-use-and-developing-brain/index.html) (last accessed June 11, 2020)

<sup>20</sup> DiForti M, Morgan C, Dazzan P, Pariante C, Mondelli V, Marques TR, Handley R, Luzi S, Russo M, Paarelli A, Butt A, Stilo SA, Wiffen B, Powell, J, Murray RM. 2009. High-potency cannabis and the risk of psychosis. *Br. J. Psychiatry* 195, 488-491. <https://doi.org/10.1192/bjp.bp.109.064220>.

<sup>21</sup> National Academies. (2017). *The Health Effects of Cannabis and Cannabinoids: The Current State of Evidence and Recommendations for Research*. The National Academies Press: Washington, DC.

marketing materials or advertising. We ask that the DCC take immediate and urgent action on this recommendation of the Advisory Committee.

### **Other areas that were insufficient in previous regulations that should be addressed in these consolidated regulations and new issues**

- *§ 15000. Definitions*

The definition of promotional materials excludes permitted signs, displays, decorations, cannabis accessories, or cannabis goods furnished by a licensed cultivator, licensed manufacturer, licensed distributor, licensed microbusiness, or licensed cannabis event organizer to a retail licensee for advertising purposes. These are clearly promotional and should be included.

- *§ 15002.1 & 15601. Temporary Cannabis Event Requirements*

The temporary cannabis event requirements in §15601 allow cannabis promotion at community events, concerts, or county fairs, which serves only to promote and normalize consumption and undermine progress towards smoke-free air. Temporary cannabis event licenses should be used exclusively for indoor trade only events in venues with controlled entry to all areas, ensuring they are accessed only by adults over 21. We would not want tobacco businesses at a county fair, and we should not have cannabis businesses there.

- *§ 15016. Priority Licensing (Previous section)*

Aside from language in §15001.1.(c) extending how long the DCC will award provisional licenses to “local equity applicants,” these proposed text of regulations do not make any effort to ensure that residents of communities that suffered disproportionately high rates of incarceration and other social ill effects caused by the criminalization of cannabis and unequal enforcement of related laws, can benefit from legalization. Requirements for advance licensing of premises, surety bonds and fees are all obstacles. This will have the effect of continuing to consolidate commerce supported by wealthy investors in favorable locations before low-income community members who have historically been incarcerated for plying the same trade, can feasibly develop locations. The State Cannabis Advisory Committee adopted several recommendations on equity in licensing including the creation of state-level equity licensing program, fee waivers, installments and deferrals, research support, access to property and premises, data collection, and local program models. None of these recommendations appear to have been incorporated into the proposed regulations. Continued failure to address the fundamental issues of social equity is unacceptable and another reason why large numbers of licenses should not be rapidly issued pursuant to these proposed regulations.

To avoid transfer of wealth from low-income communities to wealthy investors, we strongly recommend that a category of equity applicant be defined by the DCC and be inclusive of applicants with majority ownership by person(s) in communities with historically high rates of cannabis-related incarceration. Additionally, at least 50% of all state licenses should be reserved for and issued to equity applicants. Applications who have been categorized as equity applicants by their local jurisdiction should receive priority status. The ability to defer fees by one year and use a licensing process that allows preliminary approval pending confirmation of premises, as is

being considered in some jurisdictions, would allow lower income applicants to secure a premise after there is some assurance that a license will be forthcoming.

- *§ 15018. Additional Grounds for Denial of a License.*

MAUCRSA specifically calls in Section 34 that in determining whether to grant, renew or deny a license for a retail license, microbusiness or a license issued under Section 26070.5 the Bureau shall consider if an excessive concentration exists in the area in which the licensee will operate. It defines specific circumstances under which these may be considered excessive. These provisions continue present in the law are unclear in the regulations. If a license cannot be denied based on excessive concentration, they are toothless. The revised regulations do not include this consideration required in the law in the bases for denial of license. These requirements of the state law should be reflected in grounds for denial of a license. This is the only mechanism to avoid a situation such as that which has occurred widely in low-income communities and communities of color with excessive concentration of liquor stores.

- *§ 15025. Additional Premises Requirements for Retailers and Microbusinesses Authorized to Engage in Retail.*

Mandatory warning signs should be required in stores to advise consumers of hazards of cannabis use and legal risk to immigrants. Public perception of the risk of cannabis consumption has fallen dramatically in recent years from 58.3% to 30.5% of 12<sup>th</sup> graders nationally between 2000 and 2020.<sup>22</sup> Consumption during pregnancy, for example, has increased,<sup>23</sup> and recent research found nearly 70% of dispensaries in Colorado responded to an inquiry from a pregnant woman recommending use of cannabis to treat morning sickness.<sup>24</sup>

Legal risk to consumers in certain categories persists despite state legalization. It is therefore extremely important that retailers be obligated to inform the public of the health and legal risks they may face. The best and lowest cost way to do this is through prominent point-of sale information to consumers. The tobacco and alcohol industry have long invested heavily in point-of-sale advertising, and that effectiveness is the same reason we must use it to inform consumers. In this way we can provide a basic public health message to every consumer who enters a retail outlet with little or no ongoing cost, and no cost to government.

**All Cannabis Retailers should be required to display a health warning sign prominently behind the main dispensing counter.** The sign should be at least 3 feet by 3 feet and be displayed at eye height (i.e., with mid-point 5 feet above the floor), and use black letters on a yellow background with a black border. The health warnings should be written as follows:

- i) **Are you pregnant or breastfeeding?** Cannabis use during pregnancy can be harmful to your baby's health, including causing low birth weight and developmental problems, according to the U.S. Centers for Disease Control and Prevention (CDC).

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<sup>22</sup> Miech RA, Johnston LD, O'Malley PM, Bachman JG, Schulenberg JE, Patrick ME. (2021). *Monitoring the Future National Survey Results on Drug Use, 1975-2020: Volume I, Secondary school students*. Ann Arbor: Institute for Social Research, The University of Michigan.

<sup>23</sup> Brown QL, Sarvet AL, Shmulewitz D, Martins SS, Wall MM, Hasin DS. (2017). Trends in Marijuana Use Among Pregnant and Nonpregnant Reproductive-Aged Women, 2002-2014. *JAMA*. 317(2):207-209. doi: 10.1001/jama.2016.17383.

<sup>24</sup> Dickson, B., Mansfield, C., Ghihihi, M., Allshouse, A., Borgelt, L., Sheeder, J., Silver, R., & Metz, T. (2018). Recommendations from cannabis dispensaries about first-trimester cannabis use. *Obstetrics & Gynecology*, 131(6): 1031-1038. DOI: 10.1097/AOG.0000000000002619

- ii) **Driving while high is a DUI.** Cannabis use increases your risk of motor vehicle crashes.
- iii) **Not for Kids or Teens!** Starting cannabis use young or using frequently may lead to problem use and may harm the developing teen brain.
- iv) Cannabis use may be associated with **greater risk of developing schizophrenia** or other psychoses. Risk is highest for frequent users.
- v) Smoking cannabis long-term may **make breathing problems worse.**

Followed by: “WARNINGS FROM THE STATE OF CALIFORNIA”

**Cannabis Retailers should also be required to display three other warning signs**, which are at least 2 feet wide by 1 foot tall, posted at eye height (i.e., with mid-point 5 feet above the floor) behind the main dispensing counter, and each contain one of the following disclaimers in English and Spanish at a minimum:

- **Sign 1: “ATTENTION IMMIGRANTS:** Even in California, **using or possessing cannabis or working in the cannabis industry is legally dangerous for any noncitizen.** This includes lawful permanent residents, undocumented persons, students, and others. Cannabis is illegal under federal law, and federal law controls immigration. If you need to take medical cannabis, see an immigration attorney for advice. The State of California provides this information as a service to immigrant members of our community.”
- **Sign 2: “INDIVIDUALS ON PROBATION OR PAROLE:** If you are prohibited from using drugs as a condition of your probation or parole, then possession or use of cannabis could violate your probation or parole. Warning from the State of California”
- **Sign 3: “ARE YOU BETWEEN 18-20 YEARS OF AGE?:** If you are caught possessing cannabis without medical authorization, you could face legal consequences. Warning from the State of California”

The text of the required health warnings should be reviewed and updated by the DCC as needed, and at least every three years based on current scientific evidence, including communication effectiveness, and legal information.

- *§ 15040. Advertising Placement.*

We strongly recommend the **requirement for a prominent rotating warning label statement on all cannabis advertising** including on branded merchandise. Any advertiser who posts or who causes to be posted a Cannabis Retail business, Cannabis or Cannabis Product advertisement including, without limitation, any logo, that identifies, promotes, or markets a retailer name, Cannabis or a Cannabis Product, or brand name that is for sale in the State should be required to place on the advertisement one of the following warning statements:

- i) **Are you pregnant or breastfeeding?** Cannabis use during pregnancy can be harmful to your baby’s health, including causing low birth weight and developmental problems according to the Centers for Disease Control and Prevention.
- ii) **Driving while high is a DUI.** Cannabis use increases your risk of motor vehicle crashes.
- iii) **Not for Kids or Teens!** Starting cannabis use young or using frequently may lead to problem use and may harm the developing teen brain.

- iv) Cannabis use may be associated with **greater risk of developing schizophrenia** or other psychoses. Risk is highest for frequent users.
- v) Smoking cannabis long term may **make breathing problems worse**.

Followed by: **“Warning from the State of California.”**

Advertisements and marketing materials should be required to include messages “(i)” through “(v)” above in equal and rotating proportions and approximate audience exposure for any advertisement. These warnings should be enclosed in a box occupying at least 20% of the surface of any advertisement or 20% of the spoken word time and be present on each page. The warning box should be required to use black type on a yellow background, and the text to be printed in a size and manner to be clearly legible to the intended viewers of the advertisements and marketing materials. The text of the warning should be required to be positioned in the upper right-hand corner such that the warning and other information on the advertisement or marketing materials have the same orientation (for example, left to right, or bottom to top). The warning should be indelibly printed on or permanently affixed to each print advertisement or marketing material.

**Advertising and Marketing materials should not be permitted to:**

- (1) Display consumption of cannabis or cannabis products;
- (2) Contain material that encourages the use of cannabis because of its intoxicating effect;
- (3) Depict activities or conditions that could be considered risky when under the influence of cannabis, such as operating a motorized vehicle or boat, being pregnant, or breastfeeding.
- (4) Be on public property or transportation including school buses, buses, trains, transportation stops or shelters.

Finally, an adult-use cannabis retailer should not be permitted to **use in its name any words or phrases implying health or therapeutic benefits**, including but not limited to “health,” “wellness” or “clinic.”

- *§ 15411. Free Cannabis Goods*

Section “( c ) is excessively vague and does not appear to be restricted to medical use, allowing donation of free cannabis goods in compliance with any compassionate, equity or similar program. This section should be restricted for medical use products for registered medical patients.

- *§ 15418. Cannabis Goods Carried During Delivery*

This section should, as mentioned earlier, to avoid delivery to minors, require verification of age and identity upon delivery using an independent third-party age-verification provider, as was recommended for ENDS by FDA. An evaluation of delivery in San Mateo County already demonstrated a lack of consistent age and identity verification on delivery.

It should also not permit delivery to schools, colleges, universities, prisons, dormitories, youth residential facilities or workplaces.

- *§ 17117. License Constraints (Manufacturer)*

This section prohibits manufacturers from operating in conjunction with a licensed alcohol establishment, but not with a licensed tobacco establishment. It should prohibit both combinations.

- *§ 17219. Juice Manufacturing.*

We recommend the prohibition of cannabis beverages including juices. These products, most of which are fruity or sweet flavored beverages, imitate the use of alcopops, which have been well documented to represent products targeting initiation of youth into alcohol consumption and are disproportionately consumed by youth. Several California jurisdictions have implemented this policy. Providing legal access to cannabis does not need to mean providing it to any product that can be invented. This recommendation does not extend to medical tinctures for oral ingestion in small volumes.

- *§ 17225, 17226, 17227 Product Complaints, Voluntary Recall and Mandatory Recall*

In addition to issues of adulteration or misbranding, cannabis manufacturers and retailers should be required to recall products (and encouraged to do voluntarily) when these are found to be causing a hazard to public health, even if this hazard was caused by intended ingredients or use and not necessarily by misbranding or adulteration. For example, if a product is associated with vaping associated lung disease or higher rates of acute psychosis as a result of its intended ingredients.

- *§ 17300. Prohibited Products.*

This area of California's regulation continues to be deeply deficient. When California voters opted to legalize cannabis, they did not do so believing that they were legalizing virtually any product that the cannabis industry could invent, no matter how potent or harmful. Key areas have emerged as especially problematic:

- Flavored products and other products which are especially attractive to youth
- Products of escalating potency
- Cannabis beverages

More recent laws in states such as Connecticut and New York, and bills such as the Senate's Cannabis Administration and Opportunity Act, have sought to address some of these issues. Canada has strengthened its restrictions on flavored products with a ban in Quebec and stronger proposed national rules.

Canada's proposed rules would restrict licensed processors from producing or packaging and labelling inhaled cannabis extract products with any flavor, other than the flavor of cannabis. It would also restrict the promotion of inhaled cannabis extracts in a manner that could cause a person to believe that the product has a flavor other than one that is typical for cannabis. The proposed amendments would apply to all inhaled cannabis extracts (e.g., cannabis vaping products, hash, shatter). We recommend the regulations restrict the promotion, packaging and labelling of inhaled cannabis extracts so that the cannabis product may not be promoted in a way

that could cause a person to believe that the cannabis product has a flavor other than one that is typical for cannabis, including the flavors of confectionery, dessert, soft drink, or energy drink. Inhaled cannabis extracts are already prohibited from containing anything that may be injurious to the health of the user when used as intended in Canada.

It is incomprehensible to us that California has allowed the proliferation of both flavored cannabis products and a wide range of cannabis goods packaged and labeled in such a way as to induce a reasonable consumer to believe they were flavored, at the same time that we have moved to ban flavored tobacco products.

Terpenes have been used as the most common flavoring agents, however the presumption that they are safe because they are natural derived is not supported. Processes used to make cannabis concentrates already result in cannabinoid and terpene concentrations much higher than would normally exist in cannabis plant matter,<sup>25</sup> but it is becoming alarmingly common to see additional exogenously-derived terpenes added to cannabis concentrates to impart flavors. Cannabis industry stakeholders often defend using terpenes as additives to vaporizer products by indicating that the Food and Drug Administration (FDA) considers most terpenes Generally Recognized as Safe (GRAS) for use in food; however, **that does not mean they are safe to inhale**. When any substance is inhaled the exposure can have different effects than if the substance was eaten because: 1) The respiratory tract is more sensitive than the gastrointestinal tract, and 2) After oral ingestion, a substance can be detoxified through “first-pass metabolism” in the liver before reaching systemic circulation, but substances introduced into the body via inhalation go directly into systemic circulation before detoxification.<sup>26</sup> This problem was dramatically illustrated by the epidemic of E-Cigarette or Vaping Product Use-Associated Lung Injury (EVALI), which may have been driven in part by inhalation of vaping products using vitamin E acetate, a product safe for use in food, but not for inhalation. Evidence suggests that chemical constituents other than vitamin E acetate could have caused EVALI.<sup>27</sup> Research has found that various terpenes were present in many of the cannabis and non-cannabis product samples associated with cases of EVALI, and samples from many cases did not have Vitamin E acetate identified. The state of California has, to date, failed to create appropriate regulatory methods to assure that substances added to inhaled cannabis products are safe.

The Flavor and Extract Manufacturers Association (FEMA), which is the organization that has compiled and analyzed research to get thousands of terpenes FDA GRAS status, published guidance stating that it is false and misleading for flavor additive manufacturers and marketers to represent or suggest that flavor ingredients, like terpenes, are safe for inhalation simply because they have GRAS status for use in food.<sup>28</sup> An in-depth comparison of the byproducts resulting from the vaporization (at three different temperatures used with common vaping devices) of pure THC versus a “synthetic distillate” that contained a 9:1 ratio of THC to terpenes, which was intended to mimic a typical cannabis distillate one would see in a vaporizer cartridge, identified a laundry

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<sup>25</sup> Sexton, M., Shelton, K., Haley, P., & West, M. (2017). *Evaluation of Cannabinoid and Terpenoid Content: Cannabis Flower Compared to Supercritical CO2 Concentrate*. *Planta Medica*, 84(04), 234–241. doi:10.1055/s-0043-119361

<sup>26</sup> Klaassen CD. *Casarett & Doull's Toxicology: The Basic Science of Poisons*. Eighth Edition. McGraw-Hill Education, 2013.

<sup>27</sup> Muthumalage T, Friedman MR, McGraw MD, Ginsberg G, Friedman AE, Rahman I. Chemical Constituents Involved in E-Cigarette, or Vaping Product Use-Associated Lung Injury (EVALI). *Toxics*. 2020;8(2):25. Published 2020 Apr 3. doi:10.3390/toxics8020025

<sup>28</sup> Flavor and Extract Manufacturers Association of the United States. (2015) *The Safety Assessment and Regulatory Authority to Use Flavors – Focus on E-Cigarettes*. [https://www.femaflavor.org/sites/default/files/FEMAGRAS\\_Ecig\\_March\\_3\\_2015.pdf](https://www.femaflavor.org/sites/default/files/FEMAGRAS_Ecig_March_3_2015.pdf)

list of hazardous compounds.<sup>29</sup> The authors suggest that the effect of higher concentrations of THC and high-molecular weight terpenes in the aerosol particulate phase on the lung surfactant layer, and any partitioning of variable organic compounds that are produced during vaporization, is of concern and warrants further investigation.<sup>12,30</sup>

Regardless of whether exogenous terpenes are added to a cannabis concentrate, the oxidative liability of the compounds naturally present in cannabis when heated during vaporization presents additional concerns for exposure to vapor from cannabis concentrates. A 2016 report from the US National Toxicology Program about the effects of  $\alpha$ -pinene when inhaled, a terpene commonly found in cannabis products intended for vaporization, presents data that support a permissible exposure limit and recommended airborne exposure limits for  $\alpha$ -pinene due to its potential toxicity.<sup>31</sup>

Cannabis vaping products, some of which were developed by Pax, the original lab that gave rise to Juul, widely use either flavorings, or names and marketing that imply flavors even if these are not present, such as cherry pie, pineapple or mango. Flavored products are well known to attract youth and the U.S. Surgeon General has stated that flavored tobacco products are “starter” products that help establish smoking habits that can lead to long-term addiction,<sup>32,33</sup> and similar findings are expected for cannabis. The FDA has also reviewed the extensive evidence on the effects of flavored tobacco products. Extensive literature has documented the importance of flavors in triggering youth initiation. Over 80% of youth initiating tobacco use started with flavored products.<sup>34</sup> Contra Costa County presciently addressed both issues with its bans on flavored products and on cannabis vaping products for both tobacco and cannabis.

We strongly support prohibiting the sale of certain flavored products for combustion and inhalation, **including those with added terpenes** that are not part of the batch/lot of cannabis plant material used in the product. Added terpenes, or other substances, whether botanically derived or not cannot be assumed to be safe for inhalation. The addition of these products is not essential to successful legal sales of cannabis. The Department should not allow cannabis manufacturers to sell the cannabis counterparts of flavored tobacco products whose sale and consumption CDPH has been a leader in opposing. These items should not be allowed to be marketed with names, images, or claims or advertising that implying non-cannabis flavors to a reasonable consumer.

See the earlier section for recommended restrictions on high potency cannabis goods.

Inexplicably, the regulatory framework in California has completely omitted any effort to, or even discussion of how to address this important challenge to date. We strongly recommend a limit on

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<sup>29</sup> Meehan-Atrash J, Luo W, McWhirter KJ, & Strongin RM. (2019) *Aerosol Gas-Phase Components from Cannabis E-Cigarettes and Dabbing: Mechanistic Insight and Quantitative Risk Analysis*. ACS Omega. 4(14);16111-16120. doi: 10.1021/acsomega.9b02301

<sup>30</sup> Meehan-Atrash J, Luo W, & Strongin RM. (2017) *Toxicant Formation in Dabbing: The Terpene Story*. ACS Omega. 2(9);6112-6117. doi: 10.1021/acsomega.7b01130

<sup>31</sup> National Toxicology Program (NTP). 2016. NTP technical report on the toxicity studies of  $\alpha$ -pinene (CAS no. 80-56-8) administered by inhalation to F344/N rats and B6C3F1/N mice. Research Triangle Park, NC: National Toxicology Program. Toxicity Report 81. DOI: <https://doi.org/10.22427/NTP-TOX-81>

<sup>32</sup> King BA, Dube SR, Tynan MA. Flavored Cigar Smoking Among U.S. Adults: Findings From the 2009–2010 National Adult Tobacco Survey. *Nicotine Tob Res*. 2013;15(2):608-614. doi:10.1093/ntr/nts178.

<sup>33</sup> Villanti AC, Richardson A, Vallone DM, Rath JM. Flavored tobacco product use among U.S. young adults. *Am J Prev Med*. 2013;44(4):388-391. doi:10.1016/j.amepre.2012.11.03

<sup>34</sup> Fadus MC, Smith TT, & Squeglia LM. (2019). The rise of e-cigarettes, pod mod devices, and JUUL among youth: Factors influencing use, health implications, and downstream effects. *Drug Alcohol Depend*; 1;201:85-93. doi: 10.1016/j.drugalcdep.2019.04.011



the potency of allowable cannabis for sale at 20% THC, a limit on plants and seeds for sale to 20% THC when mature, and cannabis concentrates for sale by licensed retailers at 50% THC, with aligned limits on cultivation and manufacturing.

Additionally, we recommend a ban on the use of vitamin E acetate in inhaled products.

We recommend that the language prohibiting products attractive to youth adopt the earlier mentioned specification and apply to that product itself (such as the shape of an edible), its packaging or labelling, and advertising.

We recommend that cannabis beverages not be allowed for sale.

- *§ 17301. Edible Cannabis products*

Evidence continues to accumulate that individually wrapped or fully separated edible cannabis doses more clearly inform consumers of the appropriate amount to consume. A recent large study of consumers found that “packaging in which each product unit contained one dose of THC enhanced consumers' ability to identify how much of a product constitutes a standard serving or dose. Packaging products as individual doses eliminates the need for mental math and could reduce the risk of accidental overconsumption of cannabis.”<sup>35</sup> We recommend that edibles be required to be individualized units of no more than 10 mg THC.

- *§ 15411. Free cannabis goods.*

Pursuant to SB34 the regulations allow licensees to give away medicinal cannabis to “patients who have difficulty accessing medicinal cannabis goods”, including at temporary cannabis events, but neglects to provide any definition or guidance as to how to define such difficulty. We recommend that state regulation clearly define medical patients who have difficulty accessing cannabis goods.

Further, there are several other sales practices that encourage consumers to purchase more products than they might otherwise choose, such as discounting practices, and honoring or redeeming coupons to allow the purchase of a cannabis product for less than full retail price. **Prohibiting retailers from offering or redeeming such instruments still allows cannabis retailers to set prices as they see fit and to modify them, including setting them low enough to help capture the illegal market.** Such steps have already been taken by local governments, including Sonoma County. Policies prohibiting discounting have been adopted in tobacco control to positive effect, including by California jurisdictions. We recommend state regulations clearly prohibit the issuance or redemption of discount coupons and other discounting tools.

- *§ 15603. Temporary Cannabis Event Sales*

Item (o) of this section which authorizes the provision of free cannabis good if compliant with the conditions of section 15411 at temporary **events is ripe for abuse** and should be deleted. It is one thing to allow a medical dispensary to provide free product to a patient in need in a controlled setting and another to allow provision of free product at a county fair. SB 34 – Cannabis: donations (2019) BPC 26071 says such donations are allowed (a) to provide access to medicinal cannabis

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<sup>35</sup> Goodman S, Hammond D. Does Unit-Dose Packaging Influence Understanding of Serving Size Information for Cannabis Edibles? *J Stud Alcohol Drugs*. 2020 Mar;81(2):173-179. PMID: 32359046.

patients who have difficulty accessing cannabis or cannabis products, a licensee that is authorized to make retail sales may provide free cannabis or cannabis products if all of the following criteria are met: (1) free cannabis...are provided only to a medicinal cannabis patient or their caregiver... (2) the retailer...shall ensure that the physician is in good standing The nature of the events would leave enforcement highly challenging, make it unlikely that physician standing would be verified, and undermine the broader Prop 64 prohibition on distribution of free goods.

- *§ 17403. Labeling requirements Nonmanufactured Cannabis § 17404 Primary Panel Manufactured Cannabis § 17405 primary Panel Edible Products*

California's warning label requirements are weak and ineffective. First the language, specified in Prop 64, mixes several messages. Second the regulatory requirements of 6-point font and allowing the message to be on any surface assures that it is virtually invisible to consumers. Tobacco regulatory science has developed clear guidance for effective warning labels. These should occupy a significant part of the front panel of the product – 30-50% for example. They should have visual prominence through yellow background or pictorial images. Our preliminary research on this issue found that even when placing the CA warning on the front panel, where it is rarely found, it led to less than half the health information recall of a pictorial warning message. An analysis of more than a thousand print advertisements concluded: "The pictorial is superior in capturing attention, independent of its size. The text element best captures attention in direct proportion to its surface size."<sup>36</sup> We recommend that health warnings be required to occupy =>30% of the primary panel of all manufactured, edible and nonmanufactured cannabis product. This space should use rotating warnings regarding key recognized health risks such as:

- i) Are you pregnant or breastfeeding?** Cannabis use during pregnancy can be harmful to your baby's health, including causing low birth weight and developmental problems according to the Centers for Disease Control and Prevention.
- ii) Driving while high is a DUI.** Cannabis use increases your risk of motor vehicle crashes.
- iii) Not for Kids or Teens!** Starting cannabis use young or using frequently may lead to problem use and may harm the developing teen brain.
- iv) Cannabis use may be associated with greater risk of developing schizophrenia** or other psychoses. Risk is highest for frequent users.
- v) Smoking cannabis long term may make breathing problems worse.**

Followed by: "**Warning from the State of California.**

A minimum of 12-point font should be used for health warnings. If necessary for compliance with the state law the Prop 64 mandated warning could be maintained in smaller size on a less prominent surface location while more effective graphic rotating health warnings are given greater prominence.

We also recommend that flavoring ingredients including exogenous terpenes be required to be listed.

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<sup>36</sup> Pieters R, Wedel M. Attention capture and transfer in advertising: brand, pictorial, and text-size effects. *J Mark.* (2004). 68: 36-50. Doi: 10.1509/jmkg.68.2.36.27794

We recommend that cannabinoid content labeling be in a minimum of 12-point font, and that in addition to total mg for concentrates, content be labelled as a percentage e.g., xxx mg (78%).

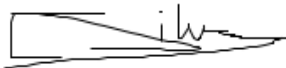
We recommend that cannabinoid content for infused pre-rolls, if allowed for sale, in addition to total mg for concentrates, content be labelled as a percentage e.g., xxx mg (78%).

Lastly, to reduce the inexorable shift to higher potency cannabis, we also recommend that **retailers be required to stock cannabis goods in the lower dose range** as well as the current high dose products, to assure that consumers have access to safer products. It would require them to stock SKUs in the lower dose range, although not specific volumes of these options. Specifically, we suggest the addition of a section under retailer licenses that requires **Cannabis Product Dose Diversity**. For example: “ It shall be a violation of this [Article/Chapter] for any Cannabis Retailer to offer for sale:

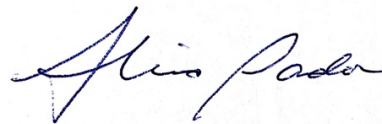
- (a) More product variations (Stock Keeping Units or SKUs) of orally-consumed Cannabis Products, including Edible Cannabis Products, that contain 10mg THC per serving than the number of product variations that contain 5mg THC or less per serving;
- (b) More types of Dried Cannabis that contains greater than 15% THC than it does types of Dried Cannabis that contains less than 15% THC.

We hope that you will consider these comments now, and for longer term regulation.

Respectfully,



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