

Draft: 12/13/21

Cannabis Insurance (C) Working Group
Virtual Meeting (*in lieu of meeting at the 2021 Fall National Meeting*)
December 1, 2021

The Cannabis Insurance (C) Working Group of the Property and Casualty Insurance (C) Committee met Dec. 1, 2021. The following Working Group members participated: Ricardo Lara, Chair, represented by Melerie Michael and Camilo Pizarro (CA); Michael Conway, Vice Chair, represented by Peg Brown (CO); Austin Childs (AK); Jimmy Harris (AR); Angela King (DC); Christina Miller (DE); C.J. Metcalf (IL); Robert Barron (MD); Marlene Caride represented by Randall Currier (NJ); Gennady Stolyarov (NV); Ashley Scott (OK); Brian Fordham (OR); Elizabeth Kelleher Dwyer (RI); Karla Nuissl (VT); and Michael Walker (WA). Also participating was: Larry D. Deiter (SD).

1. Adopted its Oct. 21 Minutes

The Working Group met Oct. 21 and took the following action: 1) adopted its Summer National Meeting minutes; and 2) discussed the outline for the appendix to the *Understanding the Market for Cannabis Insurance* white paper; and 3) discussed its 2022 proposed charges.

Ms. Brown made a motion, seconded by Mr. Barron, to adopt the Working Group's Oct. 21 (Attachment Two-A) minutes. The motion passed unanimously.

2. Heard an Update on the Drafting of the *Understanding the Market for Cannabis Insurance* White Paper Appendix

Ms. Michael said the Working Group reviewed the appendix outline during its last meeting on Oct. 16. The appendix will provide an update on the regulatory issues related to insurance in the cannabis industry that have occurred since the white paper's adoption in July 2019. The appendix draws from information gained during the Working Group's two-day hearing and the presentations received today. The drafting group met Nov. 10 to review the outline and assign the drafting of sections of the appendix to drafting participants. A draft of Section II c. *Cannabis Insurance Market Segments and Insurance Players* has been submitted for review from the drafting group. This section covers the impact from the lack of admitted insurers, seed to sale needs for each segment, and vertically integrated and niche players. The drafting group will meet again on Dec. 8 to review progress made on assigned sections.

Mr. Walker asked if drafts should be provided ahead of the Dec. 8 drafting meeting. Ms. Michael stated it would be preferred that drafts be sent to NAIC staff ahead of the meeting so they can be compiled and shared.

3. Discussed the Potential to Collaborate with the Producer Licensing (D) Task Force

Ms. Michael said she and Ms. Brown reached out on Nov. 18 to the co-chairs of the Producer Licensing (D) Task Force to gain their thoughts on potentially collaborating with the Working Group to study, in states where cannabis is legalized for medical and/or recreational use, whether cannabis-related convictions are preventing individuals from being licensed as an agent or broker. Superintendent Dwyer and Director Deiter stated they would review their database to see if they have information that they can share with the Working Group. Information and next steps will be shared with the Working Group once the data is received.

4. Heard a Presentation from the University of Colorado on Emerging Scientific Issues in the Cannabis Space

Cinnamon Bidwell (University of Colorado Boulder) stated the landscape of legality and products is constantly changing in the cannabis space, with minor tetrahydrocannabinol (THC)-like cannabinoids able to be synthesized from legal hemp. Despite that all but two states have adopted some form of legalized cannabis, federal prohibitions limit the scientific research that can contribute to these policy changes. Nearly all human work involving cannabis administration has had to rely on government grown research grade cannabis, which bears little resemblance to products in the real world. Participants say it is dry and tasteless and, until very recently, came as rolled marijuana cigarettes. Testing was done with a controlled puffing procedure of the participants consuming the entire cannabis cigarette in 12 puffs over five minutes to regulate dose and timing. This is not consistent with the way people consume cannabis in today's world. It is difficult to draw conclusions from prior work because

of these differences in product type and potency, as well as these administration procedures that happen in the lab. However, there are a couple of clear takeaways from the literature at this point. First, a wealth of lab research supports the fact that acute exposure to cannabis disrupts cognitive processing, resulting in cognitive impairment immediately after use. There may also be impacted mood and psychiatric functions for either short or long periods of time. Early and persistent use, especially prior to age, 16, worsens these cognitive and psychiatric effects. However, there is still almost no data on the impact of legal market cannabis on these same outcomes. There is a huge range of products available on the legal market that have never touched a research lab. The current body of evidence is the oversimplifications of cannabis. There is a huge diversity of reported effects from euphoria to paranoia and extreme anxiety. In addition, cannabis consists of a few primary cannabinoids and hundreds of minor cannabinoids and terpenes, many still being discovered. However, research studies primarily focus on the Delta component. There is also a huge variation in potency across strains. Different products have different levels of the major and minor cannabinoids, and each looks distinct. For these reasons, the study of cannabis is unlike the study of other drugs where one is pretty much focused on a dose dependent effect of a single pharmacological agent.

Delta-9, THC and cannabidiol (CBD) are present at the highest levels across most forms of cannabis. Each interacts differently with the human body. Delta-9 interacts with certain receptors in the brain and body to produce a drug reward and intoxication effect. They may also increase anxiety, have an inflammatory effect, and reduce pain. CBD has the opposite pharmacology, which means it may reduce anxiety and has stronger anti-inflammatory properties, but it is not intoxicating. Delta-8 is a minor cannabinoid that can be chemically characterized as a Delta-9 sibling. This chemical similarity means it may cause intoxication like Delta-9. As such, it is often referred to as a “light high.” Delta-8 exists in a legal gray area because it can be easily synthesized from hemp-derived CBD. Hemp-derived CBD became legal with the federal Agriculture Improvement Act of 2018. There are other minor cannabinoids that exist in the same legal limbo, such as Delta-10. Thus, the landscape of legal cannabis and the resulting market is constantly shifting. In particular, highly potent products are gaining market share. Federal prohibitions and discrepancy between federal and state law continue to create barriers to rigorous research on many of these new and emerging products.

There are three primary forms of cannabis: 1) flower; 2) edibles; and 3) concentrates. Sales of concentrates, which are highly potent, have risen substantially in Colorado and other states. Market names for concentrates include bubble, hash, and hash oil wax, and they typically come in a range of potencies. The low end for a concentrate is 65%, and the high-end is 95%. Concentrates are often consumed by “dabbing” or inhaling a small, but very potent, quantity of the drug. Correlational data suggests that these higher potency forms are likely to come with additional risks, such as a use disorder, mood problems, or psychiatric problems. Although research results are mixed, they suggest that concentrates and high potency products may increase risk over and above just very frequent use of cannabis. Although these products are widely available and used on state markets, there is no empirical or preclinical data on the impact of these highly potent forms due to federal illegality. As other states look to legalize recreational cannabis and federal policy changes are being considered, it is imperative that consumers and policymakers are well-informed about the health effects of these products.

Ms. Bidwell stated she created a regular rigorous, federally compliant research program that provides relevant research on the potential harms and benefits of commercially available cannabis products. Academic researchers who must be compliant with federal law are unable to bring these legal market forms into their laboratories. So instead, researchers at the University of Colorado Boulder worked closely with its administration to bring the lab to the people. This mobile pharmacology lab allows researchers to conduct observational cannabis research in a mobile environment. Participants self-administer legal market cannabis in their homes, and researcher then test them in the mobile lab before and after they use. The mobile lab is outfitted with the full range of assessments found in a typical laboratory setting. The goal of the project was to assess the acute effects of “dabbing” high potency forms of cannabis. Prior to this study, little was known about the acute effects of consuming concentrates. The study included 75 regular cannabis users who completed a comprehensive health assessment in the mobile lab. They were then randomly assigned to either a 70% or 90% concentrated oil that they would personally purchase from a partner dispensary with their own funds. Participants use their product as they naturally would in their home and then come to the mobile lab to collect data on intoxication and impairment.

Published research results show that THC levels peak immediately after use and then go down about an hour later. There were no blood level differences between the 70% and 90% concentrate groups. This suggests that individuals are maybe titrating up to a particular level of high regardless of potency or that participants are hitting an upper limit with very high potency products. The blood levels after a concentrated user are about three times higher than after a typical flower or bud use. Even the regular cannabis users before they use that day are not falling under the legal definition of intoxication. To establish impairment, the researchers took measures of subjective ratings of intoxication and objective measures of cognitive and psycho motor impairment after very high exposure. Despite the large differences in blood levels between the flower and concentrated users, the subjective impairment ratings were similar. This suggests that concentrated users develop a strong tolerance.

Objective tests of delayed memory recall also showed that concentrate users are more tolerant to the acutely, cognitively impaired effects of cannabis. It is complicated to establish if people are getting more intoxicated with higher potency concentrates. The subjective high and cognitive measures do not track with one another, potentially due to self-titrating or greater tolerance in regular users of concentrates. However, balance is the only function that gets worse immediately after use, but then it recovers quickly within the hour. This suggests that balance measures may not show the same tolerance effects and that measures of balance and motor control may be good candidates for acute use, even in very heavy users. This has huge relevance to public safety initiatives. There currently is not a valid biological or behavioral measure or breathalyzer that can allow officers to accurately detect recent cannabis use in drivers. Follow-up is needed on the possible long-term, clinical, and neurological consequences of chronically high THC exposure.

Mr. Currier asked for examples and citations of jurisdictions that use intoxication standards. Ms. Bidwell stated Colorado is among the states that uses them. The citation for this information is as follows:

Governors Highway Safety Association. (2020). *Drug impaired driving: marijuana drug-impaired driving laws*. <https://www.ghsa.org/state-laws/issues/drug%20impaired%20driving>

Arkell, T. R., Spindle, T. R., Kevin, R. C., Vandrey, R., McGregor, I. S. (2021.) The failings of per se limits to detect cannabis-induced driving impairment: Results from a simulated driving study. *Traffic Injury Prevention*, 22(2): 102–107.

Ms. Michael asked if CBD used for anti-inflammatory benefits has the same negative health risks as NSAIDS and if access to CBD is age restricted. Ms. Bidwell stated the risks with CBD are dose-dependent, and it could have similar risks in very high doses. CBD has been found to be helpful for treating childhood epilepsy and anxiety at certain doses. Age restrictions vary widely across states, mostly 18, 21 or no restrictions. However, they are likely not strongly enforced as states did not receive additional funding for enforcement around hemp legalization. Some states, such as Oregon, Michigan, and Nevada, are tightening their hemp policies to place the novel cannabinoids under cannabis regulations. However, it will likely take federal engagement to address online sales to minors. The FDA recently released a plan to collect data on hemp-derived products but has not taken regulatory action.

5. Heard a Presentation from CANNRA on Cannabis Policy and Regulation Trends

Gillian Schauer (Cannabis Regulators Association—CANNRA) said there is now a broader focus on how policy is made with increased parity in regulations across the use of cannabis. Social equity, restorative justice, and public health and safety are priorities. The patchwork in policy can present challenges to harmonization, particularly given how and when policy was made. There is a lag time of 12–24 months between when cannabis became legalized and when the marketplace was opened. Arizona holds the record for the quickest market opening at 12 months. There is currently a new wave of cannabis legalization coming across states. There is much more legislative policymaking than what occurred in 2018, when Vermont legalized adult-use without a marketplace. Illinois did the same in 2019. But in 2021, there have been four states legalized legislatively. This expansion allows for more discussion and more detailed statutes to evolve. Washington’s statute was 16 pages when it legalized cannabis in 2012. Now legislation around cannabis legalization is in the hundreds of pages with much detail. Although there is a benefit to having this detail in the front-end, it can also present challenges to harmonize down the road. In addition to seeing this change in how policies are made, there is also a broader policy focus than what occurred in the Cole Memorandum era shortly after Colorado and Washington legalized cannabis. The Cole Memorandum effectively said the U.S. Department of Justice (DOJ) would not challenge state authority as long as it followed certain public safety measures. It was rescinded under former President Donald Trump.

Currently, states have less fear of having federal agencies shutting everything down because of how many states have legalized cannabis. This has given states and policymakers the space to focus on the potential for federal engagement, social equity, public health, and consumer safety. There is also an increased desire to focus on getting more parity across cannabis regulations. So, states may have three entities regulated for cannabis—one for the operations, one for medical use, and one for adult use. There is a trend for a similar regulatory framework to be used because it is all from the same plant, and there have been some regulatory lines established.

In regard to the increased emphasis on equity and restorative justice, past criminalization of cannabis has not happened equally and has affected some communities much more than others. In the past, the focus has been on getting equity in the marketplace by ensuring diversity in licenses. Attention now is shifting to include automatic and easily obtainable expungements (having

criminal records involving now legalized cannabis to be cleaned) and community reinvestment. Illinois and California have been leaders in the community reinvestment areas, but some of the states that recently passed legislation have also focused on this. New York and New Jersey will be reinvesting in communities that have been disproportionately affected by the war on drugs in the past criminalization of cannabis. This focus includes job retraining, mental health, and substance abuse treatments in some states.

Youth prevention and consumer safety are two of the biggest areas being focused on with this increased emphasis on public health and safety. The amount of cannabis that can be held legally has increased in some states, which is of potential concern for public health and safety. Generally, states are legalizing 1 ounce of cannabis. Maine and Michigan have legalized 2.5 ounces, and New York just legalized 3 ounces. There has not been a shift in the types of products that are legal. However, there have been a few states (California, Michigan, and Washington) that have had restrictions that only allow shelf stable edibles. The primary reason for this is due to food inspection because cannabis is still a Schedule 1 substance federally. These restrictions lessen the complications in getting a federally funded food inspection program set up. The policy solution for the potential health impacts from concentrates that has been advocated for across a number of states in the last legislative session is to cap them. For example, in Vermont, a vape cartridge cannot have more than 60% in it. Connecticut will also have a cap. Vape cartridges will be potentially exempt from that cap. Homegrown cannabis is legal in many states with the exception of a few states. Illinois, New Jersey, and Washington do not allow homegrown cannabis for adult use. There is much concern about homegrown cannabis resulting in diversion. Additionally, homegrown products are not subjected to any regulatory oversight and, thus, are not tested for contaminants.

Packaging and labeling are also variables of concern for youth prevention, public health, and consumer safety. There has been increased focus, especially in medical-use states, on using plain, uniform, and opaque packaging like Canada. Studies of tobacco packaging demonstrate the package can have inherent appeal to youth and that plain packaging can greatly reduce this appeal. There is also discussion among standards organizations about implementing a universal symbol. There is some federal engagement around the challenges to making those changes in states. The inclusion of a poison center phone number, drug information, pertinent websites, and amount of THC are also beginning to be used in labeling. The level of THC is important for communicating with consumers about what the potential impairing properties are of the product they will consume. However, despite every adult-use state having a statute or regulation stating packaging should not appeal to children, they still exist. To help rectify this, these statutes and regulations should also state what packaging cannot include, such as cartoons and bright colors, to reduce the opportunity for interpretation. States that only allow plain or uniform packaging are not seeing packaging that appeal to children. On small packages, the challenge is getting the print large enough to be seen by consumers. Additionally, warning labels on cannabis products read similar to a legal disclaimer, which is not effective in communicating with consumers about the risks.

Advertising is another variable that has a lot of importance for educating consumers and for preventing youth consumption. States have increased their focus on audience restrictions by leveraging a provision that the alcohol industry developed to monitor its own advertising content and, thus, avoid federal engagement. However, under the alcohol industry's interpretation, almost 30% of the viewership for an advertisement could be underage. Recently, there has been movement to close this age gap. Connecticut's statute states that 90% or more of the audience has to be 21 years old or older. New Jersey uses a sliding scale of 80%-90% based on the type of advertising.

One of the challenges is in establishing what the legal age is for consumers of adult-use cannabis. An increasing number of states are banning advertising in or around transit, such as bus advertisements, and restricting advertisement content to what is included on packaging. For example, in some states, advertisements should not contain a pot leaf or a person consuming the product. States are also beginning to add warnings on advertisements. However, there still tends to be a lot of information in very small print. Social media advertisements on sites accessible to underage individuals are a challenge. It is important for states to focus on policy around social media for youth prevention.

In the wake of the lung injury from vaping outbreak, regulators took a much more careful look at product ingredients, devices used to vape, and processes in place for recalling products. This resulted in more regulatory authority over additives and ingredients to prevent future safety issues. A number of states have banned potentially harmful additives and focused on establishing a safety bar for other additives. Many states require the additive to be pharmaceutical grade or Federal Drug Administration (FDA) approved for the intended method of use. There has been more regulatory authority over vaping devices, especially in medical-use states. For example, there are provisions that devices have temperature controls and heating elements made of certain materials. Ohio has a provision that liquids should not touch the coil to address findings that some devices can overheat, causing a change in structure and potential health risks. The batteries and coils can also leak heavy metals, causing a risk to consumer safety. Regulating vaping devices can be challenging because the devices are not just used for cannabis.

Broader oversight that includes other substances is needed so that there is a coordinated approach to tracking and tracing ingredients and quickly recalling if a safety risk arises. The lack of safety profiles on additives makes policymaking difficult.

Emerging policies on cannabis concentrates that place caps on concentrates (such as 60%) are likely creating unintended consequences. The safest products are the purest in terms of cannabinoids. Adding additives, such as to aerosolize a cannabis product, introduces substances not well-studied and, thus, raises potential consumer safety concerns.

Cannabis testing is done in third-party labs licensed by the state. There have been documented occurrences of lab shopping. To improve quality assurance, there has been an increase in states working towards setting up reference labs. This requires novel approaches because cannabis is still illegal at the federal level. Colorado was the first state to do this successfully. The approach to testing varies by state. Several groups, including CANNRA, are working on a method to increase standardization in this area. The removal of federal illegality would be helpful to getting better consistency across lab testing.

Where cannabis can be consumed is another important safety consideration. There is a trend towards states allowing on-site consumption or allowing cannabis consumption establishments. California and Illinois defer to local authorities, and Alaska, Colorado, Michigan, and Nevada have statewide licensing in this area. Studies show second-hand tobacco smoke is harmful. Although second-hand cannabis smoke in animals has been found to have some of the same effects, there is no human-level data to document the extent of it. Enforcement in this area can be challenging since it is hard to know if someone is smoking tobacco or cannabis. The policies that currently allow for more widespread public consumption of cannabis, particularly inside, may regress the gains from limiting second-hand tobacco smoke exposure. Future policy design protecting consumer safety from second-hand smoke is an important consideration.

Regulators are facing challenges related to novel cannabinoids from hemp. This includes not just Delta-8 and Delta-10, but acetate, which is derived in a lab environment. There is no human data on acetate, so humans are effectively the test subjects. In most states, hemp is not subject to the same packaging, labeling, testing, and other regulations as cannabis because it is regulated by a different entity. There are reports that the Delta-8 labeled products actually have high levels of Delta-9. The manufacturing process for these cannabinoids can also potentially leave unknown and untested byproducts. Additionally, many of these products are impairing, and they are widely available anywhere hemp products are sold and online where youth can easily order a product. Consumers may be purchasing these products thinking they are not impairing, like CBD. The Centers for Disease Control and Prevention (CDC) and Federal Drug Administration (FDA) have issued warnings on this based on reports from poison control, many requiring hospitalization.

CANNRA has posted a document on its website summarizing concerns and recommendations it proposes be considered with federal legalization. It recommends that a floor, rather than a ceiling, should be set. Additionally, states should be able to continue responding nimbly to issues without waiting for federal action. Protecting consumer safety and promoting equity should be priorities. Minimum standards are needed for lab testing for ingredients and additives. Federal engagement for packaging, labeling, and research would be helpful. Revenue generation from cannabis taxes at the federal level should focus on investment and research and data monitoring. Incentives to promote equity and revenue generation should be reserved for states. Finally, more coordination is needed between hemp and cannabis regulations.

Ms. Michael asked if states that legalized cannabis by legislation have had fewer challenges than others that did so by ballot measures with regards to labeling that is not attractive to minors. Ms. Schauer stated it remains to be seen what the markets will look like in many of the states that legalized legislatively because they just did so in the last session. There have been two different approaches. For instance, New York gave authority to their new Office of Cannabis Management but did not prescribe anything. Thus, the details of how the market will be regulated will come from rule-making versus statute. Conversely, Connecticut prescribed extensively in statute and will have rules overlay these to an extent. Consumer safety protections should be in statute. But other issues must be a balancing act because changes to legislation are cumbersome. The eastern states that just legalized cannabis have used new approaches.

Having no further business, the Cannabis Insurance (C) Working Group adjourned.

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