Cannabis Health & Safety Advisory Committee
Meeting Minutes
Meeting #1 – February 1, 2018

1. Attendance

Participant	Organization
Danica Lee (co-chair)	Denver Department of Public Health &Environment
Abby Davidson (co-chair)	Denver Department of Public Health &Environment
Marley Bordovsky	Denver City Attorney's Office
Anshul Bagga	Denver City Attorney's Office
Molly Duplechain	Department of Excise and Licenses
Christopher Hoyt	Rocky Mountain Poison and Drug Center
Dorothy Colagiovanni	Bona Fides Lab; Next Frontier Biosciences
Gregory Dooley	Dept. of Environmental and Radiological Health Science, CSU
Helena Yardley	Franklin Biosciences
Jill Ellsworth	Willow Industries
Joe Cantalini	Organa Labs
John Adgate	Dept. of Environmental & Occupational Health, Col. School of Pub. Health
Judith Shlay	Denver Public Health
Keith Miller	Dept. of Chemistry and Biochemistry, University of Denver
Laura Davis	Environmental Health and Safety Professional
Linda Klumpers	Cannify
Mark Angerhoefer	Craft 710
Melissa Islam	Denver Botanic Gardens
Mike Van Dyke	Colorado Department of Public Health and Environment
Noel Palmer	Evolab
Scott Hansen	Agricor Laboratories
Seth Wong	TEQ Analytical Laboratories
Shireen Banerji	Rocky Mountain Poison and Drug Center
Stacey Linn	CannAbility Foundation
Tobias Postma	Topo Consulting

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2. Agenda

a. Welcome and introductions
b. Purpose and structure of committee, background
c. Discussion topics:
    i. Sampling/testing during inspections
    ii. Identify/prioritize additional consumer protection concerns
d. Public comment

3. Meeting Notes

Item	Discussion
1. Welcome and introductions 2. Purpose and structure of committee	• Danica Lee, Director of the Public Health Inspections Division for the Denver Department of Public Health and the Environment ("DDPHE" or the "Department") opened the meeting by saying that the Department is excited to start the Advisory Committee and the Department is appreciative of the tremendous expertise at the table. • Danica went over some high-level topics including the purpose of the committee, the broad topics that the committee will discuss, and the structure of the meetings. • Purpose of the committee: The purpose of the committee is to raise issues for discussion and provide input to the Department, the Board of Environmental Health, and other city agencies regarding the health and safety impacts of cannabis consumption and production. The committee will not dictate city policy, but will help inform city agencies. The Department

	chose the term "cannabis" in order to recognize that the committee will be discussing issues related to both hemp and marijuana. • Discussion topics: The committee will discuss health and safety issues related to: 1) cannabis products and ingredients intended for consumption; 2) cultivation, harvesting, drying/curing/ finishing processes for cannabis; 3) production processes used to manufacture cannabis products; and 4) potential Denver cannabis regulations. • Structure of meetings: Each meeting is currently scheduled for two (2) hours with no built-in breaks. The last ten (10) minutes of each meeting will be devoted to public comment. Speakers should sign up if they would like to comment, each speaker is allotted two (2) minutes for comment. If there is not enough time for all speakers to comment, Department staff will be around after the meeting to answer questions. The Department has a "healthy meeting policy," and members are encouraged to bring their reusable water cups and to minimize waste. • Drew Brown (OMB/Peak) facilitated introductions for the committee members.
3. Background	• After introductions, Danica (DDPHE) gave a brief overview of Department's organizational structure. The Department is made up of five (5) divisions including public health inspections. The Public health inspections division is further divided into two sections: Food safety and marijuana & Healthy families and healthy homes. • Danica took a moment to address the Department's name change from the Department of Environmental Health to DDPHE. The name change did not affect the Department's

	regulatory authority, rather it was done to align with names of public health agencies outside of Denver. • Danica then went through the history of the Department's regulation of cannabis, beginning in 2010. • In 2010, the Department began seeing more marijuana food businesses. Unlike other jurisdictions, Denver is a home-rule municipality which means that the City enforces its own food regulations. In 2010, the Department decided to inspect marijuana establishments and enforce Denver's food regulations in those establishments. • In 2014, the Department began twice annual inspections in marijuana-infused product manufacturing facilities (MIPs) and in medical marijuana centers and retail marijuana stores (sales locations). The Department has another division that interacts with marijuana cultivation facilities (the Environmental Quality division). • In 2015, the Department took its first enforcement actions related to pesticide contamination. This was the first large regulatory challenge that the cannabis industry and DDPHE worked through together. • In 2016, the Department saw a proliferation of hemp-derived cannabidiol products. At the time, no public health agency was providing oversight for these products, which concerned the Department from a consumer protection standpoint. The Department started to use its authority to regulate cannabidiol retailers and wholesalers. The Colorado Department of Public Health and the Environment (CDPHE) is now more involved in the regulation of cannabidiol products, and cannabidiol

	manufacturers have to register with the state's wholesale food program if they are making ingestibles. • In 2017, enforcement on cannabidiol products continued. Additionally, the cannabis sustainability guide was released. There were many industry partners at the table for the creation of the sustainability guide. In May 2017, the world's first marijuana health and safety hotline was launched with the help of the Rocky Mountain Drug Poison and Control Center. In September 2017, the Department was present at a quarterly industry check-in meeting where members of the industry requested a more transparent conversation about health and safety issues. • Next, Abby (DDPHE)] discussed marijuana business licensing. The City issues ten (10) distinct marijuana licenses. Each business holds two licenses (one from the state and one from the City). Denver has issued approximately half of all the licenses in Colorado. The newest license types include the Social Consumption license and the Marijuana Transporter License. • Abby then talked about the inspection landscape for cannabis businesses. Public Health Inspections visits all MIPs and sales locations twice a year. More inspections may be required to investigate a complaint, or to follow up on a previous visit. The Environmental Quality division of DDPHE also does one routine inspection for all cultivation facilities per year. • Abby discussed the source of DDPHE's authority. Two chapters in the Denver Revised Municipal Code (the "D.R.M.C.") provide guidance. Chapter 23 governs food and food handlers and Chapter 24 governs all other operations. Chapter 24 contains

	very broad authority and allows the Department to intervene when public health hazards are present. • One member had a question about items for medical use. The Department explained that if the item is ingested, then it may fall under the Department's food authority. • Abby explained that the Public Health Inspections division also has a specialized team that conducts MIP inspections. Part of that team conducts plan reviews and is involved in approving facility equipment, fixtures, and facility layouts from a public health perspective. • One member had a question about the Department's regulatory authority; for example, if a sales location was selling product that was manufactured in Boulder, would the Department regulate the manufacturer? Abby explained that the Department's authority is at the point of storage or sale generally, but the Marijuana Enforcement Division or another state agency may regulate the manufacturer.
First Discussion Topic - Sampling/testing during inspections	• Danica began by explaining that, currently, there is a significant regulatory gap in testing for cannabis products. The Department has received complaints about the lack of integrity in test results and the ability for business to avoid regular testing by claiming to have a "validated" process. The Department continues to find contaminated product even when the violating business has conforming test results based on current requirements. For hemp-derived products, there is even less regulatory oversight, including fewer testing requirements. While the cultivation of hemp plants is overseen by the Colorado Department of Agriculture, there is very little regulatory structure when it comes to hemp-derived products.

	Therefore, the Department is moving towards routine sampling and testing during inspections. • The Department would like to be thoughtful and is asking the committee for input in order to understand what the concerns are. Committee members should think about routine testing for residual solvents, microbials and pesticides. • One member wanted to clarify how the process for validation works. This member stated that an operator has to test a certain amount of product for four (4) to six (6) weeks and if all of those test batches pass, then the facility is "process validated" for one year. During that one year, the facility must still test one batch every month. • Another member added that any material change to the facility's testing process requires re-validation. • One member asked if there were any reviews of the validation process. Another member answered this question by saying that the onus is on the industry member to back-up their validation methodology. • Another member clarified that the state is not currently requiring pesticide testing. • In response to a question about how the Department finds contamination in these facilities, the Department explained that contamination is usually found during an investigation which results from a complaint or a referral from another agency. • One member expressed concerns about the current sampling methodology. This member explained that some facilities conduct their own sampling for compliance testing. The Department has also received complaints stating that some

	businesses segregate their "testable" product from their "non-testable" product. • One member also wanted to clarify that the testing process has changed significantly since January 1, 2018, and that should be acknowledged. • After this discussion, members then broke off into groups of 4-5 to discuss how to implement routine sampling and testing in a way that it best for consumers and industry members. One city staff member was assigned to each group. • The groups then reconvened and shared their top concerns with the committee as follows: • Group 1: This group's top concern was that the sampling process should be independent, randomized, and standardized. The group explained that this is necessary because the product is not homogenous "across all fronts." The group also discussed lab standards, validation, homogeneity, and cost implications for the industry and the Department. • Group 2: "Ditto." This group explained that their main concern was the integrity of samples. This group suggested that there should be an independent laboratory where consumers could take their product to get tested. • Group 3: This group echoed what the other groups suggested. Standardization should be a priority across both sampling and laboratories. One step further would be better training. This group wondered who would pay for improved testing processes and guidance. • Group 4: This group stated that they had a similar conversation. They explained that their conversation drifted from how DDPHE would implement routine sampling to the issues surrounding

	process validation and then into what detection thresholds should be for contaminant testing. • Each group then wrote their top concerns onto a white sheet of paper hanging on the white board for the committee.
Discussion Topic 2 – Identify/prioritize additional consumer protection concerns	• Abby began by giving the committee some background for this discussion topic. She explained that historically there has been a lack of scientific research regarding the health effects of cannabis consumption and production. For example, while there is a body of research about ingredients added to food products, there is very little research on added ingredients in smokables. Additionally, there is very little research on some of the equipment that is used to make cannabis products. Abby gave an example of an instance when the Department discovered a licensed business producing "bubble hash" in a washing machine. The water intake lines to the washing machine had visible mold and the metal pieces inside of the washing machine which made contact with the product were corroded and rusty. Abby also explained that there is a lack of availability scientific data about the effects of hemp-derived products and pesticide contamination. • One group member wondered how added ingredients in cannabis products would differ from added ingredients in other smokables like e-cigarettes. • The Department explained that the FDA has considered added ingredients in e-cigarettes and if the FDA releases any guidance the Department may look at those findings. However, with regard to medical marijuana, many vulnerable populations, like immunocompromised patients may be exposed to added ingredients in cannabis and may not be exposed to e-cigarettes.

	Another member also explained that the lack of federal oversight over added ingredients in e-cigarettes is still a concern for the state public health authority. • The committee members then divided into groups of 4-5 members to identify and prioritize additional consumer protection concerns regarding cannabis consumption and production. • The groups then reconvened and shared their top concerns with the committee as follows: • Group 1: This group stated that there were a "plethora" of concerns regarding safety and the oversight of products, ingredients and delivery methods in terms of physiology. The group suggested that rather than thinking about what should *not* be allowed in cannabis, perhaps the better public health approach would be regulating what *is* allowed in cannabis. • Group 2: This group started out by discussing additives and ingredients and realized that there were many unknowns. For many ingredients, there is very little data saying that the ingredients are either safe or unsafe. The group wondered whether any regulatory body or committee would have capacity to fully understand these issues. The group touched on overregulation and the fear of driving prices up which would force customers into the "black market." The group suggested that maybe time is better spent on clarifying labeling requirements and "truth in advertising." While food items may be a "different story" because there is a body of law behind food regulations, for smokable products clarifying labeling requirement may be a good idea.

	• Group 3: This group talked about ingredients and about "what consumers know and don't know." The group talked about routes of exposure for different chemicals and talked about the lack of scientific data regarding smokable ingredients. The group talked about labeling requirements and talked about how companies should have a responsibility to engage a pharmacist or a chemist before bringing the product to market. • Group 4: This group talked about the problem of unregulated medical devices and delivery devices. They talked about the lack of enforcement regarding testing for heavy metals and how other states are looking at microbials which Colorado is not. The group also talked about the lack of regulation for hemp-derived products. • Each group then transferred their top concerns onto a white sheet of paper hanging on the white board for the committee. • Danica next emphasized that the Department would be following up with committee members regarding their thoughts and that if any of the committee members had additional thoughts, they should reach out to Department staff.

Public Comment	
Item	**Discussion**
Public Comment	• Kevin Gallagher (Cannabis Business Association) – Mr. Gallagher began by thanking everyone on the committee for their participation. Mr. Gallagher explained that the industry would like more transparency from the Department about health and safety issues. He explained that the Colorado

Public Comment	
	Department of Agriculture releases a list of which pesticides not to use, and he does not want manufacturing to be a "guessing game." Mr. Gallagher stated that he knows that some committee members are monetarily incentivized to overregulate, but as one member pointed out, the goal of the committee should not be overregulation. • Kristi Kelley (Marijuana Industry Group) – Ms. Kelley also began by thanking the committee. Ms. Asked if flower testing protocols that were discussed at an industry quarterly meeting were going to be discussed at this group. Ms. Kelley thanked the Department for having open meeting so that everyone could participate. Ms. Kelley explained that MIG is looking for clarity so that marijuana businesses can be good operators. She appreciated the acknowledgment that most of the businesses are trying to be compliant and MIG is hopeful for clear conclusions that come out of this committee. • Jenna (no last name) – Jenna wanted to know how the committee was going to determine the issues that it would be reviewing. The Department explained that it would look at the information and feedback submitted by the committee members and would prioritize issues that have a significant public health impact. The Department explained that the committee would likely re-convene prior to the Department taking any actions.