



Psilocybin Mushroom Policy Review Panel

2021 COMPREHENSIVE REPORT

Prepared for

Denver City Council
Finance & Governance Committee
November 9, 2021

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Suggested citation: Gael Girón S. Lang B. LeMaster S. Matthews K. McAllister S. Denver Psilocybin Mushroom Policy Review Panel. City and County of Denver. *2021 Comprehensive Report*. Denver, CO, USA

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I. EXECUTIVE SUMMARY

1. On May 7, 2019, the majority of Denver voters approved Initiative 301 (“I-301”) to decriminalize personal possession, cultivation, and storage of psilocybin mushrooms in the City and County of Denver. This landmark ordinance catalyzed a national movement to decriminalize and regulate psilocybin for personal and therapeutic use, and reaffirmed Denver’s role as a national leader in the global conversation regarding drug policy reform and mental health.
2. As part of I-301, the Denver Psilocybin Mushroom Policy Review Panel (the “Panel”) was created to assess and review the impact of the initiative in Denver and make recommendations to the Denver City Council. After over a year of regular meetings, research and education from members of the psychedelic community in Denver and nationally, data collection, and insightful discussion, the Panel unanimously agreed that decriminalizing psilocybin mushrooms in Denver has not since presented any significant public health or safety risk in the city.
3. The Panel found there to be no major increase in arrests related to the distribution of psilocybin mushrooms and no major cartel elements or organized crime. According to limited and preliminary university-level observational research for Colorado, most individuals set a positive intention prior to use and reported using psilocybin mushrooms for self exploration and mental health.
4. This Comprehensive Report details the research and findings of the Panel since February 2020 and makes the following recommendations:
 - a. *Train City and County of Denver first responders to recognize and safely respond to persons undergoing psychedelic crisis.*
 - b. *Produce educational public service announcements to inform the public about safety, responsible use, and available risk reduction services.*
 - c. *Create a data collection reporting system for any interactions involving psilocybin for ongoing public safety monitoring.*
 - d. *Make the sharing/gifting of psilocybin without remuneration among the lowest law enforcement priority.*
 - e. *Make the communal use of psilocybin among the lowest law enforcement priority.*
 - f. *Expand voting Panel members to be more representative of Denver’s diversity.*
 - g. *Determine how psilocybin therapy can be applied to address mental health issues in Denver.*



5. Due to the safety profile of psilocybin mushrooms and the demonstrated lack of existing harm potential to the City and County of Denver, the Panel recommends that Denver City Council adopt amendments to Chapter 28, Article X, Sec 28-301 to also make the non-commercial exchange of psilocybin mushrooms by or between adults, including the facilitation or supervision of such activities, the lowest law enforcement priority in the City and County of Denver. These recommendations would avoid someone being charged with a felony under current Colorado law, and they prioritize the needs and wants of the voters who approved Initiative 301 to ensure health equity for those who want to utilize psilocybin. Furthermore, recent observational research suggests that psilocybin (and other psychedelics), when used carefully in an intentional group setting, predicts enduring changes in psychological wellbeing and social connectedness.¹ The backbone of this movement is centered on personal and community health and mental wellness and the Denver City Council has an incredible opportunity to enact further responsible reform that puts people and communities first by expanding liberties for Denver residents who wish to use psilocybin in a responsible and intentional manner.

6. The DPMPRP members acknowledge that Covid-19 has had a major impact on our community since Initiative 301 was passed, and that impact may have resulted in different behaviors that may change as the pandemic subsides. As such, we make additional specific recommendations regarding ongoing vigilance and monitoring so that the City and County of Denver will have appropriate means of ongoing evaluation with respect to public safety as well as a mechanism for alerting if circumstances change.

¹ <https://www.frontiersin.org/articles/10.3389/fphar.2021.623985/full>



II. HISTORICAL USE, EARLY RESEARCH, & REVIVAL

Takeaways

1. *Human settlements dating back to at least 500 BC and perhaps as far back as 9000 BC used psilocybin mushrooms.*
2. *Maria Sabina was the first Mexican curandera to allow Westerners to participate in a velada, or purification ceremony with psilocybin mushrooms, in the mid-1950s.*
3. *Psilocybin was first synthesized by Swiss chemist Albert Hoffman in the late 1950s and was marketed globally as Indocybin for therapeutic research.*
4. *University-level research in the 1960s demonstrated that psilocybin could address a range of mental health issues with minimal risk and complication.*
5. *The Controlled Substances Act criminalized psilocybin and halted successful research.*
6. *The first modern psilocybin research published in 2006 by Johns Hopkins University warranted rigorous scientific exploration.*
7. *Denver's successful Initiative 301 signaled a psychedelic revival in the United States.*

Overview

1. Psilocybin is a psychoactive tryptamine alkaloid found in over 200 documented varieties of mushrooms that occur naturally on every continent with the exception of Antarctica. Commonly referred to as *magic mushrooms*, psilocybin mushrooms are considered one of the classical *psychedelics*, a term coined by psychiatrist Humphry Osmond in 1956 that means “mind-manifesting.” What distinguishes psychedelics from other classes of drugs is their “capacity to induce states of altered perception, thought, and feeling that are not experienced otherwise,”² and do not cause “physical addiction, craving, major physiological disturbances, delirium, disorientation, or amnesia.”³ Psilocybin’s effects typically last 4-6 hours depending on the dose, and it is considered the safest of all

²<https://pubchem.ncbi.nlm.nih.gov/compound/Psilocybine#section=Pharmacology-and-Biochemistry>

³ https://maps.org/index.php?option=com_content&view=article&id=5468#_ftn2



recreational drugs in terms of needing to seek emergency medical treatment⁴ and in terms of potential harms to the user and society.

2. Humans have used psilocybin mushrooms with intention for thousands of years to access these altered states of perception for healing, communal rites of passage, and visionary work. Modern research with psilocybin confirms what our ancestors already understood: psilocybin, when used with care and intention, is an infinitely novel and effective substance for health and mental wellness.

Historical Use & Western Reintroduction

1. Human settlements dating back to at least 500 BC in Mesoamerica,⁵ and perhaps as far back as 9000-7000 BC in Africa,⁶ recognized and highly regarded the inherent value and potential of psilocybin mushrooms not only as a source of nutrition, but also to address individual and communal psychological and social issues, aid in hunting and gathering, facilitate rites of passage, and as a sacrament for individuals to gather together and commune with the divine. Some scholars also argue that psilocybin, along with other environmental factors, may be responsible for the rapid growth of the neocortex in bipedal apes that evolved into present-day humans.⁷
2. Psilocybin was reintroduced in the West through investment banker and amateur mycologist Robert Gordon Wasson's photo essay, "Seeking the Magic Mushroom," published by *LIFE* magazine in May 1957 in the United States. In it he accounts his 1956 participation in a ritual with María Sabina, the first contemporary Mexican *curandera* who allowed Westerners to participate in the purification and communion ceremony known as the *velada*.⁸ Wasson not only coined the term *magic mushroom* but, after participating in the ritual, also extracted spores from his experience with Sabina and flew to Europe where he cultivated them. Less than two years later, in the March 1958 issue of *Experientia*, Swiss chemist Albert Hoffman published results documenting the isolation of the active compounds psilocybin and psilocin from mushrooms obtained through

⁴https://www.globaldrugsurvey.com/wp-content/themes/globaldrugsurvey/results/GDS2017_key-findings-report_final.pdf

⁵ <https://doi.org/10.1080/1751696X.2014.993244> -- Guerra-Doce, Elisa, "Psychoactive Substances in Prehistoric Times: Examining the Archeological Evidence" 2015

⁶ <http://vasulka.org/archive/Artists3/McKenna,Terence/PsychedelicsRevisited.pdf>

--more detailed info on Tassili n'Ajjer:

<http://www.artepreistorica.com/2009/12/the-oldest-representations-of-hallucinogenic-mushrooms-in-the-world-sahara-desert-9000-%E2%80%93-7000-b-p/>

⁷ Paul Stamets, "Psilocybin Mushrooms and the Mycology of Consciousness," *Multidisciplinary Association for Psychedelic Studies* video, May 11, 2017,

<https://www.youtube.com/watch?v=vFWxWq0Fv0U&t=455s>

⁸ It was Wasson who used the term by which it has since become generally known, when he first wrote about the ritual in *María Sabina and Her Mazatec Mushroom Velada* (1974). See Karttunen 1994: 225.



Professor Roger Heim, an esteemed French mycologist who accompanied Wasson on his 1956 trip to Mexico.

3. Hoffman, who synthesized LSD originally in 1938 and discovered its psychedelic properties in 1943, rapidly discovered a laboratory-synthesized route to psilocybin. In the 1960s it was marketed globally by Sandoz Laboratories as *Indocybin* for basic psychopharmacological and therapeutic clinical research,⁹ and was used in universities in Europe and the United States that were already conducting what was then referred to as psycholytic and psychedelic psychotherapy to address a range of mental health symptoms. Clinical papers published in the 1960's indicated that this therapy demonstrated effective results in addressing problems like sociopathy, neuroses, alcoholism, and anxiety arising from end-of-life distress, all with minimal risk and complications.¹⁰ Research also concluded proper screening and preparation dramatically reduced any risks and maximized therapeutic potential.¹¹

Prohibition

1. In the span of historical psilocybin use it wasn't until relatively recently that psilocybin was made illegal, highly stigmatized, and forced underground. So-called *magic mushrooms* grew in popularity among the 1960s anti-establishment counterculture and were subsequently included in the Controlled Substances Act of 1970 as a Schedule I drug. This sweeping prohibition of psychedelics not only criminalized an entire class of citizenry, but it also tragically halted the successful university-level research that was proving the safety and efficacy of psilocybin-assisted therapy.
2. As a result of strict prohibition of psychedelic substances, research into psilocybin was on hold until it was revived in the year 2000 when Johns Hopkins University was the first to attain regulatory approval in the United States to reignite research into psilocybin. Johns Hopkins' landmark inaugural study, published in 2006, concluded that "psilocybin occasioned experiences similar to spontaneously occurring mystical experiences and which were evaluated by volunteers as having substantial and sustained personal

⁹ <https://pubmed.ncbi.nlm.nih.gov/29956917/>

¹⁰ Grinspoon, Lester, and Rick Doblin, "Psychedelics as Catalysts of Insight-Oriented Psychotherapy," *Social Research*, vol. 68, no. 3, 2001, pp. 677–695. JSTOR, www.jstor.org/stable/40971906. Accessed 11 Mar. 2021.

¹¹ Grinspoon and Doblin, "Psychedelics as Catalysts of Insight-Oriented Psychotherapy," pp. 677–695.



meaning and spiritual significance”¹² and that rigorous scientific investigation was warranted.

Revival

1. In 2017 results from the *Global Drug Survey* suggested that psilocybin was the safest recreational drug.¹³ In both 2018 and 2019 psilocybin was granted breakthrough therapy status by the Food and Drug Administration for the treatment of depression, and the decriminalization of psilocybin in Denver, CO in 2019 signaled a psychedelic revival in the United States and globally. With many cities and states already following in Denver’s footsteps, an additional two decades of modern clinical research demonstrating its efficacy as a therapeutic intervention, and polling that suggests 35% of American voters believe psilocybin has medical value,¹⁴ public opinion around psilocybin in the United States is rapidly transforming from being viewed as a dangerous drug to a substance that has medical value.
2. The widespread national media attention of psilocybin as an effective alternative to currently available mental health treatment options is due in part to a nearly \$7 Billion USD market cap from a rapidly growing psilocybin manufacturing industry in North America. This industry, in large part, is not only fueled by groundbreaking research, but inspired by the massive success of various psychedelic reform efforts across the country over the past 2 years. These efforts are fueled mostly by grassroots volunteers and local nonprofit organizations.
3. Grassroots efforts to decriminalize psilocybin and other psychedelics are bipartisan, with advocates and activists from all beliefs and walks of life uniting under a common banner that promotes individual health and mental wellness, social healing, cognitive exploration, personal autonomy, self-governance, community sovereignty, health equity, and spiritual evolution. In many ways these efforts model a mycelial, systems approach to organizing that are democratic, largely decentralized, and driven through cooperative participation.

¹² Griffiths RR, Richards WA, McCann U, Jesse R., “Psilocybin can occasion mystical-type experiences having substantial and sustained personal meaning and spiritual significance,” *Psychopharmacology* (Berl). 2006 Aug;187(3):268-83; discussion 284-92. doi: 10.1007/s00213-006-0457-5. Epub 2006 Jul 7. PMID: 16826400.

¹³https://www.globaldrugsurvey.com/wp-content/themes/globaldrugsurvey/results/GDS2017_key-findings-report_final.pdf

¹⁴<https://thehill.com/hilltv/what-americas-thinking/556304-poll-65-percent-of-voters-say-psychedelic-substances-do-not>



Conclusion

1. The therapeutic, intentional, and ritualistic use of psilocybin mushrooms has been an integral part of human cultures for millennia. This shared ancestry of use by all peoples throughout history has its reverent roots in a celebration of the natural world that promotes physical health and vitality, an inspiring link with nature and the divine, and deep connection with community.
2. Although psilocybin mushrooms are common to humanity, the modern psychedelic movement reignited in the United States owes gratitude to Mexico's Maria Sabina and the sacrifices she made to initiate Americans into the ancient, sacred, rich cultural heritage she represented. The hardship and alienation she was forced to endure as a result of extractive practices by Westerners must be reciprocated and her memory honored by equitable and just policy reform.
3. The prohibition of psilocybin, especially for university-level research, prevented possible advances to mental and behavioral health therapy. 20th Century academic research and the movement it inspired paved the way for a modern renaissance that has the potential to make up for this unfortunate policy decision.
4. Psilocybin in the United States isn't so much an industry as it is a rapidly emerging ecosystem already influencing healthcare, politics, finance, technology, and religion, and has the potential to innovate and transform the landscape of American society. Because of this potential, much of the responsibility falls on lawmakers and policymakers to no longer deny human history, honor traditional psilocybin use, and ensure that future policy reform centers psilocybin access to populations who can benefit from it the most.



III. MODERN PSILOCYBIN RESEARCH AND THERAPEUTIC APPLICATION

Takeaways

1. *For thousands of years psilocybin was considered beneficial because it provided insight into the inner workings of the mind.*
2. *By 1970 thousands of peer-reviewed scientific papers had been published reporting on the over 40,000 patients who had received psilocybin in clinical studies to address a range of symptoms including alcohol dependence, neurotic disorders, and to assist with end-of-life transitions.*
3. *Modern research demonstrates psilocybin is effective in treating psychosocial distress, anxiety and depression, improving quality of life, changing pain perception, improving plasma markers of stress and immune system functioning, reducing anxiety and fear of death in terminally-ill populations, and more.*
4. *Psilocybin studies are showing non-clinical benefits such as increased openness, felt connectedness to nature, enhanced spirituality, and positive changes in personality traits.*
5. *Users who microdose psilocybin, or ingest small sub-perceptual amounts, self-report improved mood, energy, and cognition, and reduced levels of negative emotions and attitudes.*
6. *Psilocybin research clearly demonstrates the safety, low toxicity, efficacy, and tolerability of the substance.*
7. *Current prohibition inhibits emerging scientific inquiries into the therapeutic and social benefits of psilocybin.*
8. *According to Frontiers in Pharmacology, the psychedelic renaissance is a paradigm shift in the fields of medicine, addiction, and mental health.*



Overview

1. Psilocybin Cubensis, or “magic mushrooms” have had a long history of therapeutic use. Primarily, the majority of scientific research on this substance was conducted in the 1960s using Sandoz’s synthetic Indocybin¹⁵ as a replacement for organic psilocybin mushrooms, both of which being outlawed during sweeping prohibition legislation as the war on drugs kicked off. Before this recent prohibition and for many hundreds of years, psilocybin was largely considered as a beneficial fungus that could assist in the understanding of numerous mental illnesses as it provided not only the user but also the observer insight into the inner workings of the mind, through altering the baseline state of consciousness. By 1965, thousands of scientific papers had been published in credible peer-reviewed journals. More than 40,000 patients who had taken psychedelics with minimal side effects and a high level of safety had been reported by this time.¹⁶ And as Ralph Metzner (2005), a progenitor of psychedelic research points out, by the year 2005, nearly 2000 participants had already undergone psycholytic (low dose) or psychedelic (high dose) psychotherapy in clinical studies with the mushroom or its synthetic variants.

Modern Research

1. As early as the 1970s, records of successful use and application of this medicine were being published showing success, with repeated psycholytic therapy and dosage, to help with the treatment of treatment-resistant autistic and schizophrenic children.¹⁷ Psychedelic-Assisted Psychotherapy with psilocin (dephosphorylated psilocybin), has shown utility and varying levels of success with the treatment of alcohol dependence¹⁸, neurotic disorders of the mind, and even as a useful tool to assist individuals in their end-of-life process.¹⁹
2. Additional applications in more modern research studies show psilocybin’s effectiveness with psychosocial distress and inner psychological well-being, general anxiety and depression, improvements in quality of life and spiritual and mystical states of consciousness, secondary changes in perception of pain and improvements in the plasma markers of stress and immune system functioning.²⁰ Equally impressive, the medicine has been useful for the populations of terminally ill patients helping to reduce fear and anxiety around death²¹, individuals suffering from treatment-resistant depression with the anti-depressive effects of psilocybin lasting anywhere from 6-18

¹⁵Passie et al., 2002

¹⁶Grinspoon & Bakalar, 1981; Masters & Houston, 1970

¹⁷ Fisher, 1970

¹⁸ Bogenschutz, 2012

¹⁹ Grinspoon & Bakalar, 1981

²⁰ Griffiths, 2007; Kumar, 2009; Ross, 2009

²¹ Grob et al., 2011



months²², those suffering from nicotine addictions²³, obsessive compulsive disorders²⁴, and cluster headaches²⁵, those in need of brain cell growth²⁶, and individuals with attachment anxieties.²⁷

3. Studies are also beginning to show some non-clinical benefits for the human organism including; increases in openness²⁸, increases in felt connectedness to nature²⁹, enhanced spirituality³⁰, and positive changes in certain personality and attitude constructs within the individual.³¹ As stated before, research into the benefits, safety profiles, potential harms, and effective usage of the medicinal psilocybin mushroom had been making great headway until the war on drugs-initiated era of prohibition when all research was shut down. Some of this research was continued by those most fully committed, though it was largely conducted in recreational, underground, and illegal contexts. However, in recent decades amidst continuing prohibition in most areas of the world, we are beginning to see a hopeful shift in the minds and hearts of legislators as some cities are seeking to, and succeeding in, passing new laws lifting the shadow of the unscientifically based prohibition policies. Research into psilocybin is now returning to the mainstream³² led by beacon academic medical centers such as Johns Hopkins and NYU Langone Health.

Microdosing

1. A new area of psilocybin research, that of microdosing, is also emerging. Microdosing, or the ingesting of a sub-perceptual dose of the substance, does not give the individual the same effects as a higher dose. The visual and audio distortions as well as the significant somatic effects found with higher doses are absent while other benefits come to the surface for the user. Generally, microdosers who are asked to give their reports of their experience share that they experience positive outcomes which include improved mood, heightened energy levels, and improved cognition.³³ Additionally, in a study conducted by Prochazkova et al. (2018), researchers found that microdosing psilocybin increased convergent and divergent thinking which is commonly associated with increases in creativity in a number of domains. Microdosers have also reported reduced levels of negative emotions and attitudes, increased wisdom, creativity, and open-mindedness when compared to individuals who had never microdosed the

²² Carhart-Harris et al., 2012; Vollenweider & Kometer, 2010

²³ Johnson & Cosimano, 2012

²⁴ Leonard & Rapoport, 1987; Moreno et al., 2006

²⁵ Sempere et al., 2006; Sewell et al., 2006

²⁶ Shao, Liao, Gregg, Savalia, Delagarza, & Kwan, 2021

²⁷ Stauffer, Anderson, Ortigo, & Woolley, 2020

²⁸ MacLean, Johnson, & Griffiths, 2011

²⁹ Lyons & Carhart-Harris, 2018

³⁰ Griffiths et al, 2006

³¹ Erritzoe, Roseman, Nour, MacLean, Kaelen, Nutt, & Carhart-Harris, 2018

³² Sessa, 2005; Vollenweider & Kometer, 2010

³³ Johnstad, 2018



medicine.³⁴

2. Most studies of microdosing gather their evidence from self-reported measures somewhat reducing the generalizability that might be found in double-blind placebo-controlled studies. Even with the lack of well-defined clinical trials with microdosing, proponents of the practice report numerous psychological and social benefits from the regular use of these sub-perceptual doses to include; increased vitality, sociability, positive mood, increased productivity, increased creativity, improved focus and attention, memory improvements, enhanced mindfulness and better overall well-being.³⁵

Conclusion

1. Psilocybin research, both clinical trial research and anecdotal research, clearly demonstrate the safety, low toxicity, efficacy, and tolerability of the substance. They have shown through validated peer-reviewed research at the highest levels that psilocybin can assist in the treatment of mental health and mood disorders as well as self-regulatory disorders where mainstream treatments are falling short. Additionally, the study of psilocybin is providing leading researchers and participants an enhanced lens to which we can reexamine the inner-workings of our minds and the processes of our consciousness, hopefully pushing our collective evolution forward. Though the vast majority of studies show benefits from psilocybin use, there are some negative side-effects that are worth mentioning including nausea, post-treatment headaches, transient anxiety, elevated blood pressure and heart rate, and the occasional negative perception about the experience itself. The mechanisms to which psilocybin works within the brain and the entirety of the human organism are not yet fully understood but progress is being made in this area with various brain studies looking at receptor sites within the neurology of the structure of the brain, examining brain activity under the influence using fMRI, and delving more deeply into the impacts on human psychology through numerous philosophical lenses and theories of consciousness.
2. Current prohibition around psilocybin and psychedelics in general remains to a large extent and continues to inhibit the various scientific inquiries emerging about these substances and their potential therapeutic and society-changing effects. The continued use of psychedelics and the newly reemerging psychedelic renaissance, according to *Frontiers in Pharmacology*, is effectively a paradigm shift in the fields of medicine, addiction, and mental health³⁶, a shift that can, if allowed, fill in the gaps left behind by only marginally effective treatments currently in practice. Additional scientific inquiry that is performed under rigorous standards and less-restrictive legislation is still necessary to turn these and other emerging revelations of benefit into validated evidence-informed practice.

³⁴ Anderson, et al., 2018

³⁵ Anderson, 2013

³⁶ Morgan et al., 2017; Nichols et al., 2017; Schenbert, 2018



IV. WHAT WE LEARNED IN 2020

Takeaways

1. *Meeting 1 & 2: Psilocybin reporting criteria is established in addition to arrests & prosecutions since May 8, 2019.*
2. *Meeting 3: The Panel heard from Del Jolly with Unlimited Sciences, Shannon Hughes & Rob Colbert at The Nowak Society, and approved a motion for Sara Gael to contact local agencies about harm reduction training.*
3. *Meeting 4: The Panel heard from Dr. Scott Shannon with Wholeness Center, Carlos Plazola with Decriminalize Nature, and Sara Gael provided an update to the multi responder training*
4. *Meeting 5: Del Jolly with Unlimited Sciences provided an update to their observational psilocybin research, Adam Bramlage with Flow State Micro shared about his work with clients who microdose psilocybin, and representatives from MAPS provided an overview of the multi responder training.*
5. *Meeting 6: Kevin Matthews shared the results of a public survey detailing public opinion regarding psilocybin reform in Colorado, the Panel approved the working draft of the comprehensive report, and the Panel agreed upon initial recommendations for the City and County of Denver.*

Meeting 1 & 2

1. The Panel held its first two meetings on February 11, 2020 and March 24, 2020.
2. At these meetings, the Panel focused primarily on complying with the requirement in the Ordinance that they establish reporting criteria for the City to report arrests, prosecutions of psilocybin cases in Denver following passage of the Ordinance. In addition to Panelist input, the Panel heard from the following special guests on potential reporting criteria:
 - a. Lizzie Friend presented on Denver Sheriff Department reporting policies
 - b. Jackie Zhelezynak made a presentation about Denver Health reporting policies
 - c. Kevin Gamash made a presentation from the DA's Office on reporting policies
 - d. Chief Montoya discussed reporting criteria from DPD



3. Based on this input, the Panel adopted the following reporting criteria to be regularly submitted to the Panel:
 - a. age (adults and juveniles)
 - b. location of offense
 - c. offense (possession, distribution, cultivation)
 - d. quantity involved
 - e. Prosecutions – Resolution
 - f. Race
 - g. Other drugs involved
 - h. Current mental health data
 - i. Behavioral data around police encounter (status of intoxication)
 - j. encounters that did not result in an arrest
4. The Panel gathered the arrests and prosecutions since the passage of the Ordinance.

Meeting 3

1. The Panel's third meeting was May 6, 2020.
2. At this meeting, the Panel heard from the following special guests:
 - a. Del Jolly, Executive Director of Unlimited Sciences
 - i. Unlimited Sciences is a non-profit looking to engage in observational studies around psilocybin in Denver and other parts of the country. Jolly said they are looking for 1000 or more participants worldwide to complete prospective observational surveys and intend to publish with Johns Hopkins in 2022. He mentioned there are no clinical trials on psilocybin available in Denver and that Unlimited Sciences' observational research could lead to informed clinical trials.
 - b. Shannon Hughes and Rob Colbert, The Nowak Society
 - i. The Nowak Society, a non-profit educational organization, represents communities of professionals (therapists, psychologists, doctors, hospice workers, social workers, and more) who are interested in providing psychedelic assisted therapies and advancing drug policy reform. They discussed their efforts to educate the public about psilocybin, including the release of a recent public service announcement around psilocybin. They discussed state regulatory agencies needing to be prepared to set up credentialing standards for a new profession of practitioners, and how



groups are starting to look at national and state level credentialing. It remains too risky for therapists to engage in these practices, including potentially losing their therapist license for helping people who continue to struggle intensely after having tried all other treatments.

3. Sara Gael and Shane LeMaster presented on harm reduction training and medical survey for Denver first responders, and Sara explained basic harm reduction principles. They proposed a training for Denver Police Department (DPD) around psilocybin to assist in their encounters with users. DPD has a co-responder program consisting of two person teams (police and public health person) focused on diversion. The Panel approved a Motion to allow Sara to reach out to all relevant agencies in Denver to conduct surveys regarding training.
4. Sean McAllister and Kevin Matthews led a discussion about the ambiguity of whether sharing psilocybin was authorized under the Ordinance. State law makes the sharing of psilocybin a felony. See CRS 18-18-405. DA McCann stated that she views the sharing of psilocybin to still be a crime under the Ordinance and urged caution to the community on this topic.

Meeting 4

1. The fourth meeting of the Panel was held on September 11, 2020.
2. At the meeting, the Panel heard from the following special guests:
 - a. Dr. Scott Shannon
 - i. Dr. Shannon runs the Wholeness Center in Ft. Collins, which has 12,000+ client charts. They have responded to needs of the community for treatment resistant mental health issues (depression, PTSD, etc.). They use ketamine-Assisted Psychotherapy (KAP), utilizing the person's own internal insights to drive the response to the medicine. He also runs the Psychedelic Research and Training Institute, which is training professional clinicians in psychedelic medicines through the KAP model. He explained that "Psychedelics have the potential to transform mental health care to provide sustained relief from a number of mental health issues." Dr. Shannon noted the risk profile shows that psilocybin is a very safe medication. He also noted clinicians are unwilling to engage with these medicines due to potential risks for losing their licenses. Fear of liability is also being seen as a barrier for practice. Limitations for research include very high costs for the approval process to be able to do



research with these medicines.

b. Carlos Plazola

- i. Mr. Plazola was one of the founders of Decriminalize Nature Oakland (“DNO”) and the board chairperson of Decriminalize Nature (“DN”) which spearheaded the decriminalization of all naturally-occurring psychedelics in Oakland. Following this successful measure, DN has encouraged or assisted numerous other communities to introduce similar initiatives. In addition, DNO introduced a new law in Oakland to extend protections for plant medicine practices in Oakland if the participants register with the City and follow certain guidelines. Once registered with the City, participants would be defended by the City if ever prosecuted by the state or federal government.

3. Multi Responder Training Review.

- a. Sara Gael gave an update on the work to do harm reduction training to Denver first responders.

Meeting 5

1. The fifth meeting of the Panel was held on December 1, 2020.

2. The Panel heard from the following special guests.

a. Del Jolly, Unlimited Sciences.

- i. Johns Hopkins reviewed the initial results of the observational studies, and Jolly discussed how the City of Denver could help promote enrollment to better understand how I-301 affects Denver. He stated that, ideally, Denver could reference this data. Enrollment is open to all who intend to use psilocybin.

b. Adam Bramlage, Flow State Micro

- i. Mr. Bramlage is an expert on psilocybin microdosing. He discussed the concept of microdosing and gave examples of positive effects of this practice. He reported anecdotal reports of microdosing resulting in relief of numerous medical and mental health conditions, including depression, alcoholism and even paralysis.



- c. Sara Gael led a discussion updating the work on the multi-responder training and provided input from MAPS associates Bryan Lang, Katrina Michelle, and Brian Broom-Peltz. The MAPS associates discussed MAPS history, and the goals of multi-responder training including maximizing public safety and education while minimizing liability. They reviewed next steps including recruitment, pilot trainings expected, and formal launch of the trainings in the second quarter of 2021

Meeting 6

1. The sixth meeting of the panel was held on March 16, 2021.
2. Kevin Matthews provided an overview a public survey sponsored by the Society for Psychedelic Outreach, Reform, and Education (SPORE) that asked Colorado residents their opinions on psilocybin decriminalization, what they would like to see included in future ordinances or bills, perspectives on the drug war and drug enforcement, and how policymakers can better represent and center the needs of marginalized communities on psychedelic policy reform.
3. The panel reviewed the draft of the comprehensive report, making recommendations as to content and structure, and approved the initial working version.
4. Kevin Matthews led a discussion on recommendations to be included in the comprehensive report. The panel unanimously agrees that decriminalizing psilocybin mushrooms in Denver has not since presented a significant public health or safety issue. The panel discussed and agreed on initial recommendations:
 - a. Train City and County of Denver first responders on psychedelic harm reduction
 - b. Produce educational public service announcements and have the city consider-co branding with local organizations
 - c. Make gifting psilocybin without remuneration the lowest law enforcement priority
 - d. Make communal use of psilocybin the lowest law enforcement priority
 - e. Expand voting members of the panel to be more representative of Denver's diversity
 - f. Create a working group/subcommittee of the panel to consider and explore therapeutic psilocybin services in Denver



V. MULTI RESPONDER TRAINING

Takeaways

1. *The Panel recommends specialized harm reduction training for all City and County of Denver first responders that focuses on effective approaches for psilocybin-induced crises.*
2. *The Panel voted in September 2020 to collaborate with the Multidisciplinary Association for Psychedelic Studies (MAPS), a 501(c)(3) psychedelic drug research and education organization founded in 1986. Since then, MAPS has been working with first responder departments City and County of Denver since this time to develop a psilocybin harm reduction training initiative.*
3. *While psilocybin and other classical psychedelics are considered physiologically safer and less habit forming than many other psychoactive substances, some users experiencing psilocybin-induced altered states can become unstable and erratic, which in turn can lead to harmful behaviors.*
4. *Over the past five years in the United States, emergency response to psychedelic crises has resulted in wrongful death suits with an average settlement amount of \$2.28 million.*
5. *The overarching goal of the training initiative is for Denver's first responders to enhance their knowledge, attitudes, and skills required to quickly recognize and effectively respond to emotional and behavioral crisis incidents involving psilocybin and other psychedelics.*
6. *This training program will provide law enforcement, Emergency Medical Services (EMS), and mental health co-responders with experiences and information to close gaps in current training.*
7. *MAPS has worked in close collaboration with City and County of Denver agency leads to ensure the value of the services they deliver in the trainings will be in alignment with the goals set forth by the Panel and by the City and County of Denver.*
8. *MAPS has been tasked with training development, and has committed considerable staff and financial resources to develop this curriculum.*
9. *As of July 2021, training development is proceeding into the pilot phase. After initial pilot completion, MAPS will present its findings to the Panel, and the Panel will evaluate the findings as well as assess the public safety value delivered by the MAPS trainings, before making recommendations on next steps.*



10. Final training implementation and roll-out across all departments will require discussion and negotiation between MAPS, the Panel, and the City and County of Denver department leads to develop a scope of work and contractual agreement prior to proceeding with an implementation phase and city-wide roll-out.

Overview

1. Recent surveys indicate that individuals are using psychedelics now more than ever³⁷, and this use spans all age groups. This increased use is accompanied by a lack of informational campaigns highlighting potential risks of adverse experiences. The absence of such information, combined with a growing number of first-time users, could increase the incidence of psilocybin-induced crises which could in turn warrant deployment of first responders. Most educational substance use programs focus on opioids and methamphetamines, and do not address the very different effects and impacts of psychedelic substances. As such, specialized training focusing on effective approaches for first responders to psilocybin-induced crises stands to increase responder and public safety, while minimizing the risk of liability for harmful outcomes.
2. Many adverse incidents and crises related to psychedelics can be prevented by increasing public education and awareness around the importance of set and setting, preparation and integration, and providing tools and knowledge that increase the likelihood of safer use. In addition to advancing the training initiative, the Panel will concurrently put forth recommendations for public education and public service announcements that encourage learning so that people may make more informed and responsible decisions regarding psilocybin use.
3. The Denver Psilocybin Mushroom Review Panel (DPMPRP) established a harm reduction training committee with the purpose of exploring the potential of training Denver first responders in psilocybin harm reduction. On September 11, 2020, the Panel voted to involve the Multidisciplinary Association for Psychedelic Studies (MAPS) in development of their harm reduction training initiative that they anticipated would be rolled out to City and County of Denver staff in the Police and Sheriff's Departments, mental health co-responders, paramedics, and Fire Department emergency medical technicians. In October 2020, the MAPS Board of Directors committed its staff and external consultants to develop comprehensive curriculum and pilot training for first responders.

³⁷ <https://www.marijuanamoment.net/nearly-100-cities-are-considering-decriminalizing-psychedelics-map-shows/>



4. Acknowledging the trends of psychedelic decriminalization, increased use rates, and the unique opportunity to develop comprehensive harm reduction initiatives, the MAPS Harm Reduction Team asked: How might we educate first responders in psilocybin use, create effective protocols and training for first responders, and reduce the potential for adverse outcomes to psilocybin-induced crisis response?

Problems Addressed by the Training

1. Large liability settlements are being adjudicated against first responders for responses to people undergoing psychedelic-induced crisis that resulted in injury or death.
2. Existing training programs do not adequately prepare first responders for appropriate recognition and response to people undergoing psychedelic-induced crisis.
3. City policy-makers, managers, training developers, and first responders lack understanding of usage patterns and behaviors associated with psilocybin use.
4. While psilocybin and other classical psychedelics are considered physiologically safer and less habit forming than many other psychoactive substances, some users experiencing psilocybin-induced altered states can become unstable and erratic, which in turn can lead to harmful behaviors toward themselves and others. Adverse effects may be substantially worsened in people with pre-existing mental health issues and/or those who consume large doses.
5. Much psilocybin use is by people without adequate understanding of the risks involved. Just as with any pharmaceutical, while the vast majority of psilocybin users experience little to no adverse effects or impact of a routine dosage, a small percentage of users respond adversely to the psychological effects of the substance. Increased and primarily uninformed use may therefore result in an increase in psilocybin-induced crises.
6. People experiencing psilocybin-induced crises who are subject to inappropriate first response have been shown to experience severe adverse outcomes, up to and including avoidable death; this in turn creates liability for the first responders and their employers.
7. Standardized appropriate response protocols, training, and infrastructure do not exist for response to psilocybin-induced crises. Appropriate responses to psilocybin-induced crises differ from responses to common substance-induced crises arising from opioid and methamphetamine use. Where available, crisis intervention response training typically does not include response to psychedelic crisis.
8. Lack of appropriate response to a psilocybin-induced crisis may result in severe personal, career, and financial consequences for cities and their staff that can result in liability and adjudicated costs for damages associated with improper response.



City and County Agencies Involved

1. **Denver Police Department**
 - a. Approximately 1,600 police officers
2. **Denver Sheriff Department**
 - a. Over 760 sworn Sheriff Deputies
3. **Denver Health Paramedic Division**
 - a. 215 Paramedics and 20 Emergency Medical Technicians (EMT's)
4. **Mental Health Center of Denver Co-Responders Unit**
 - a. Approximately 60 staff
5. **Denver Police Department/Mental Health Center of Denver/Denver Health Paramedic Division STAR Program**
 - a. 4 Clinicians
6. **Denver 911 Emergency Dispatch**
 - a. Approximately 90 staff
 - b.
7. **Denver Fire Department**
 - a. Over 1,000 Firefighters with EMT certification

Training Initiative Goals

1. Broad Goals:
 - a. The overarching goal of this program is for first responders to enhance their knowledge, attitudes, and skills required to quickly recognize and effectively respond to emotional and behavioral crisis incidents involving psilocybin and other psychedelics. Paramount to the success of this program is enhancing responder safety and reducing risk and liability in situations where individuals are experiencing a psychedelic-induced crisis.
 - b. This training program will provide law enforcement with experiences and information to close any gaps in current training and will present and analyze nuances of de-escalating psychedelic crisis.
2. This initiative expects to deliver a comprehensive curriculum developed to a medical education standard to support the following goals:
 - a. Increase the knowledge, capabilities, and preparedness of City and County of Denver first responders to recognize and respond to psilocybin-induced crises.
 - b. Provide education to create understanding of psilocybin usage, psychological and physiological response, and potential adverse effects of psilocybin ingestion.



- c. Demonstrate the need and legal considerations for proper education for first responders.
- d. Provide information to support the creation of standards and protocols for effective psilocybin-induced crisis response planning, training, and deployment.

Development and Rollout Timeframe

1. A team of over 20 professionals has been engaged to undertake the curriculum and training development effort. Work began in October 2020. The team has a background in risk management, law, medicine, psychiatry, mental health, neuropsychopharmacology, law enforcement, crisis response, quality improvement, insurance, education, certification, human resources, and information technology.
2. The curriculum is undergoing development according to the gold standard medical education model used for instructing physicians at academic medical centers. This comprehensive model allows MAPS to research, formulate, test, and iteratively improve materials and assessments to focus on learning outcomes that result in relevant, meaningful, and useful information that can be put into immediate practice to maximize public safety while minimizing liability.
3. Development encompasses substantial research into the problems, current approaches, and ideal approaches, so that gaps are identified and filled by the curriculum. Surveys and interviews have begun for the various learner cohorts to better understand their baseline knowledge and training, continuing education requirements, optimal educational techniques, and appropriate presentation materials.
4. Pilot programs will be conducted and feedback assessed and incorporated to inform curriculum rollout and implementation.
5. Initial pilot trainings for Law Enforcement and Emergency Medical Services are expected during Q4 2021 with Mental Health and Emergency Services to follow.
6. As of August 2021, training development is in the pilot phase. After pilot completion, MAPS will present its findings to the Panel, and the Panel will evaluate the findings as well as assess the public safety value delivered by the MAPS trainings before making recommendations on next steps.
7. Once launched, with the support of the Panel, a continuous quality improvement program can be developed to utilize data from instructors, City and County of Denver administration, students, and ongoing research to iteratively improve subsequent versions.



8. Final training implementation and roll-out across all departments post-pilot phase will require discussion and negotiation between MAPS, the Panel, and the City and County of Denver Agency leads to develop a detailed scope of work and contractual agreement prior to proceeding with an implementation phase and city-wide roll-out.
9. During pilot development, elements of project scope have been identified including specific departments to be trained, projected number of city responders to engage in the first round of pilot training, and projected number of responders that would be trained in full-scale implementation. MAPS is committed to the development of the emergency responder trainings through phase 1 pilot completion. Full scale implementation across all departments (approximately 4,000 personnel) strategy is to be assessed by MAPS in collaboration with the identified departments and DPMPRP post-pilot completion after evaluating initial pilot results and feedback. Implementation strategy discussion will include timeline, projected costs, and potential funding sources.

Current Progress

1. **Law Enforcement:** Problem statements, targeted learners, broad goals, and specific learning objectives have been fully developed, reviewed and approved by law enforcement consultants. The pilot program is in development, with the initial pilot slated for delivery in late June or July, pending final agreement execution with the City. Training form factor has been determined to be two hours via asynchronous video learning and may include limited virtual instructor-led support.
 - a. MAPS efforts have been strongly supported by the Denver Police Department, Denver Sheriff Department, the Law Enforcement Action Partnership (LEAP), and the law enforcement learning platform company ThinBlueOnline.com.
 - i. The Law Enforcement Action Partnership (LEAP) is a 501(c)(3) nonprofit of police, prosecutors, judges, corrections officials, and other law enforcement officials advocating for criminal justice and drug policy reforms that will make our communities safer and more just. Founded by five police officers in 2002 with a sole focus on drug policy, today its speakers bureau numbers more than 200 criminal justice professionals advising on police-community relations, incarceration, harm reduction, drug policy, and global issues from a place of unassailable credibility and insight. Through speaking engagements, media appearances, testimony, and support of allied efforts, LEAP reaches audiences across a wide spectrum of affiliations and beliefs, calling for more practical and ethical policies from a public safety perspective.



- ii. ThinBlueOnline is an innovative training platform built for the law enforcement community by the law enforcement community.
 - b. MAPS has been advised that this training may require multi-agency review and approval prior to review by the City Attorney's Office. MAPS requests collaboration with the City and County of Denver as well as Panel and regarding how best to engage with this process.
 2. **Emergency Medical Services:** Problem statements, targeted learners, broad goals, specific learning objectives, and a prototype training script have been developed and are currently undergoing review by medical consultants. MAPS has also been in contact with The Nowak Society and their paramedic network for additional insights into training content and surveys. MAPS will work with Denver Health Paramedics to recruit students for our first pilot. Training form factor has been determined to be two hours via asynchronous video learning and may include limited virtual instructor-led support.
 - a. Communications between Fire, Paramedics, and associated training personnel in both departments has been effective and mutually beneficial.
 - b. MAPS is currently targeting Q3 2021 for completion of the initial pilot training.
 - c. MAPS has been advised that this training may require multi-organization review and approval prior to review by the City Attorney's Office. MAPS requests collaboration with the City and County of Denver as well as the Panel regarding how best to engage with this process.
 3. **Mental Health Services:** Problem statements, targeted learners, broad goals and specific learning objectives have been formulated and are queued for further development and refinement subsequent to the completion of the law enforcement and emergency medical staff trainings. In the conversations between MAPS and Denver Co-Responder / STAR program, MAPS staff feels supported and in alignment with the willingness of department heads and training professionals who want to participate and collaborate in the best ways possible.
 4. **911 Communications and Dispatch Services:** Problem statements, targeted learners, broad goals and specific learning objectives have been developed. After investigation, the needs of this department could likely be addressed by a 30 minute training incorporated into their regularly-scheduled monthly trainings subsequent to the completion of the three trainings listed above.
 5. MAPS is currently in conversation with the Department of Safety and the city attorney's office to create an appropriate contractual framework for the delivery of the pilot programs. MAPS has worked in close collaboration with City and County of Denver department agency leads to ensure the value of the services delivered in the trainings



will be in alignment with the goals set forth by the Panel and the City and County of Denver. After pilot completion, MAPS will present its findings to the Panel, and the Panel will evaluate the findings presented as well as assess the public safety value delivered by the MAPS trainings before making recommendations on next steps.



VI. SAFETY, USE, & AVAILABLE RESOURCES

Takeaways

1. Arrests related to psilocybin decreased by more than half since the passage of I-301.
2. A significant majority of cases were for White offenders.
3. Most arrests included other illicit substances in addition to psilocybin.
4. Psilocybin related arrests account for less than 1% of all arrests related to drugs and alcohol.
5. There is currently no known data for hospitalizations related to psilocybin.
6. According to observational data, most individuals use psilocybin for mental health and self-exploration.
7. According to observational data, psilocybin use showed significant improvements in anxiety & depression.

Overview

1. The Panel believes that public safety is the highest priority for psilocybin decriminalization in the City and County of Denver. While mushrooms may be safe for most people when used with intention in an informed setting, there are still risks. These risks can be limited or greatly reduced while simultaneously maximizing therapeutic potential through proper education about responsible use.
2. The Panel believes that decriminalizing psilocybin in Denver has not presented any measurable public health or community safety risks. With an incredibly low number of arrests, no known hospitalization or emergency medical treatment data, and a vigilant local community of professionals, educators, and service providers, it seems clear that the potential benefits of psilocybin far outweigh the risks.
3. While ongoing monitoring and more data should be collected for accountability and reporting purposes, the City and County of Denver can be comfortable with exploring

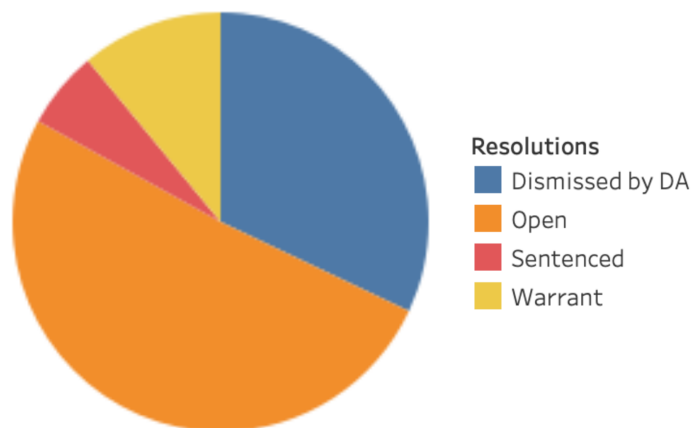


how psilocybin can make a more direct, positive impact in our communities and in the lives of people who can potentially benefit from responsible use.

Cases & Arrests

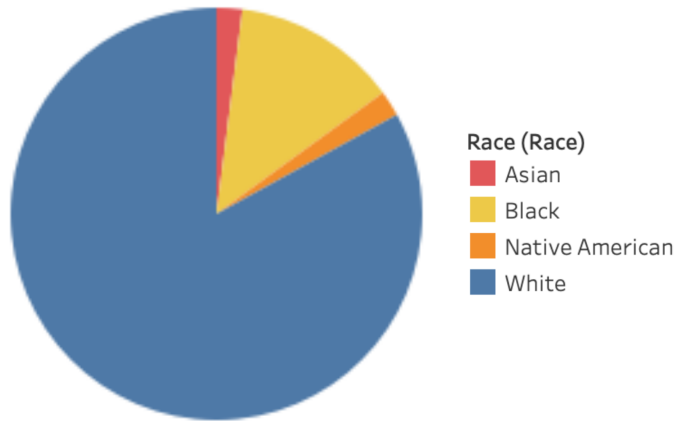
4. Total Cases

- a. According to data obtained from the Denver District Attorney's office, there have been a total number of 47 cases related to psilocybin in Denver since decriminalization was adopted on May 8, 2019. 15 (32%) were dismissed by the District Attorney, 3 (6%) went to sentencing, 5 (11%) have warrants issued, and 24 (51%) are open.



5. Race Demographics

- a. Of the 47 cases, 39 (83%) were White offenders, 6 (13%) were Black, 1 (2%) was Asian, and 1 (2%) was Native American.



6. Substances and charges

- a. According to data obtained from the Denver Police Department, 5 (11%) of total arrests were for psilocybin or psilocin only, whereas 39 (89%) were arrests that included additional illicit substances.
- b. Of the 5 arrests involving psilocybin or psilocin only, 3 (60%) were arrests for amounts greater than for personal use.

7. Previous year comparison

- a. In 2018 there were a total number of 44 cases related to psilocybin. Comparably, in the little over 2 years since psilocybin has been decriminalized there were a total of 47 cases, with only 21 total arrests in 2020.

8. National average comparison

- a. According to the National Forensic Laboratory Information System 2020 Midyear Report, psilocybin/psilocin accounted for a total number of 2,237 cases nationally representing 0.37% of total cases for illicit substances. Comparably, of the 2,739 drug and drug possession felonies and misdemeanors filed in Denver in 2020, psilocybin/psilocin accounted for 0.77%.

Table 1.1 NATIONAL AND REGIONAL ESTIMATES FOR THE 25 MOST FREQUENTLY IDENTIFIED DRUGS¹
 Estimated number and percentage of total drug reports submitted to laboratories from January 1, 2020, through June 30, 2020, and analyzed by September 30, 2020²

Drug	National		West		Midwest		Northeast		South	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Methamphetamine	177,794	29.03%	44,256	42.34%	41,665	28.55%	6,129	6.73%	85,744	31.66%
Cannabis/THC	98,243	16.04%	13,904	13.30%	21,273	14.58%	18,559	20.37%	44,507	16.43%
Cocaine	79,467	12.98%	6,287	6.01%	17,154	11.75%	20,276	22.26%	35,750	13.20%
Fentanyl	49,284	8.05%	5,560	5.32%	15,011	10.29%	14,140	15.52%	14,573	5.38%
Heroin	46,476	7.59%	13,230	12.66%	9,863	6.76%	9,556	10.49%	13,828	5.11%
Alprazolam	9,792	1.60%	1,452	1.39%	1,916	1.31%	1,044	1.15%	5,380	1.99%
Buprenorphine	8,638	1.41%	862	0.82%	1,954	1.34%	1,492	1.64%	4,330	1.60%
Oxycodone	8,331	1.36%	933	0.89%	1,888	1.29%	1,412	1.55%	4,096	1.51%
Eutylone	5,118	0.84%	14	0.01%	792	0.54%	323	0.35%	3,989	1.47%
Amphetamine	4,571	0.75%	426	0.41%	1,202	0.82%	583	0.64%	2,360	0.87%
Hydrocodone	4,529	0.74%	587	0.56%	1,059	0.73%	148	0.16%	2,736	1.01%
ANPP	4,458	0.73%	447	0.43%	1,145	0.78%	1,726	1.89%	1,140	0.42%
Tramadol	3,886	0.63%	233	0.22%	1,280	0.88%	873	0.96%	1,501	0.55%
Clonazepam	3,089	0.50%	240	0.23%	694	0.48%	433	0.48%	1,721	0.64%
MDMA	2,672	0.44%	830	0.79%	824	0.56%	201	0.22%	817	0.30%
Acetyl fentanyl	2,337	0.38%	26	0.03%	1,090	0.75%	621	0.68%	600	0.22%
Flualprazolam	2,327	0.38%	229	0.22%	886	0.61%	177	0.19%	1,034	0.38%
Psilocin/psilocibin	2,237	0.37%	756	0.72%	601	0.41%	209	0.23%	671	0.25%
5F-MDMB-PICA	2,177	0.36%	74	0.07%	429	0.29%	475	0.52%	1,200	0.44%
Naloxone	2,131	0.35%	132	0.13%	289	0.20%	331	0.36%	1,379	0.51%
Cannabidiol (CBD)	1,944	0.32%	262	0.25%	522	0.36%	129	0.14%	1,030	0.38%
Lysergic acid diethylamide (LSD)	1,941	0.32%	371	0.35%	717	0.49%	195	0.21%	658	0.24%
Phencyclidine (PCP)	1,705	0.28%	154	0.15%	327	0.22%	343	0.38%	881	0.33%
Etizolam	1,502	0.25%	197	0.19%	253	0.17%	89	0.10%	963	0.36%
Gabapentin	1,369	0.22%	78	0.07%	270	0.18%	248	0.27%	772	0.29%
Top 25 Total	526,018	85.89%	91,541	87.57%	123,104	84.35%	79,714	87.49%	231,659	85.53%
All Other Drug Reports	86,408	14.11%	12,995	12.43%	22,833	15.65%	11,393	12.51%	39,187	14.47%
Total Drug Reports³	612,426	100.00%	104,536	100.00%	145,937	100.00%	91,107	100.00%	270,846	100.00%

¹ Sample n's and 95% confidence intervals for all estimates are available on request.
² For most drugs, the January through June 2020 estimate shows a substantial decrease likely due to the impacts of COVID-19 and should not be compared with previous years' estimates.
³ Numbers and percentages may not sum to totals because of rounding.

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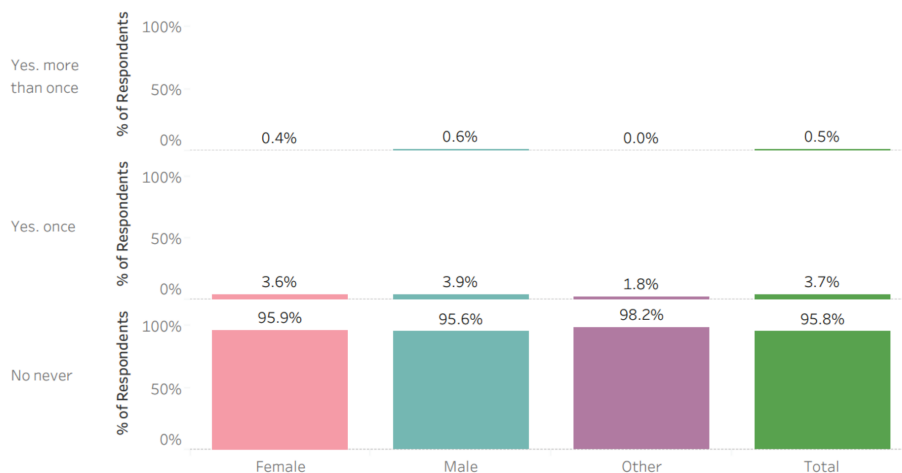
Hospitalizations

1. There is currently no available data from Denver hospitals to report on the number of hospitalizations or calls for emergency medical treatment regarding psilocybin use in Denver. Although psilocybin use, adverse effects, and abuse are listed as diagnoses in the ICD-10, Emergency Department personnel do not typically distinguish any specific drug or substance when seeing patients with anxiety, delirium, or agitation, etc.
2. Global Drug Survey - Seeking Emergency Medical Treatment
 - a. The Global Drug Survey 2020 Psychedelics Key Findings Report includes data obtained from over 25 countries, including the United States. “Of the 1376 respondents who reported the use of any psychedelic (LSD, Magic Mushrooms, MDMA, ketamine, DMT, 1p-LSD, ayahuasca, 5-Meo-DMT) in the last year to self manage emotional distress of a specific psychiatric condition, 4.2% reported seeking EMT when using these drugs specifically for self treatment, in the last 12 months.”³⁸

³⁸ Winstock AR, Timmerman C, Davies E, Maier LJ, Zhuparris A, Ferris JA, Barratt MJ & Kuypers KPC (2021). Global Drug Survey (GDS) 2020 Psychedelics Key Findings Report.



Seeking EMT following the use of any psychedelic for psychiatric condition or specific emotional distress



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Observational Research & Safety Data

1. Unlimited Sciences Progress Report (Colorado Data)
 - a. On August 21, 2020 Unlimited Sciences, in collaboration with the Johns Hopkins Center for Psychedelic Consciousness Research, launched a survey to “learn more about the positive and/or negative outcomes of using psilocybin in naturalistic settings (meaning outside a research laboratory), and any potential factors that could affect those outcomes.”³⁹ Additionally, by collecting data from individuals who already plan to use psilocybin mushrooms, they hope to “investigate variables such as demographics, lifestyle, mindset, and personality traits, as well as characteristics of the experience itself such as dosage, ingestion method, intention, and setting, that could influence psilocybin’s long-term effects.”⁴⁰
 - b. The following data is a summary of the most relevant preliminary findings from Colorado respondents from information still being collected through at least December 31, 2021. The full text of the progress report can be found in Appendix

³⁹ <https://unlimitedsciences.org/our-study/>

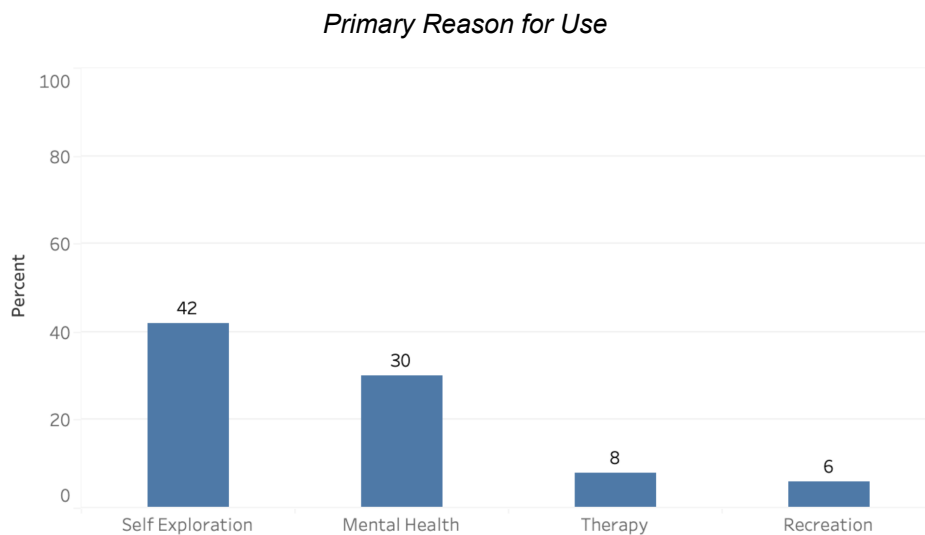
⁴⁰ Et. al.



B.

i. Basic Demographics

1. Of the 221 respondents who completed the initial consent survey, 185 (84%) were Caucasian, 22 were Hispanic (10%) 18 (8%) were Mixed, 5 (2%) were Asian, and 1 were Black (<1%). 64 (29%) reported a current anxiety disorder, 48 (22%) reported a mood disorder, and 19 (9%) reported chronic pain. Of respondents' primary reason for using psilocybin mushrooms, 93 (42%) reported self-exploration, 66 (30%) reported mental health, 17 (8%) reported therapy, and 13 (6%) reported recreation.



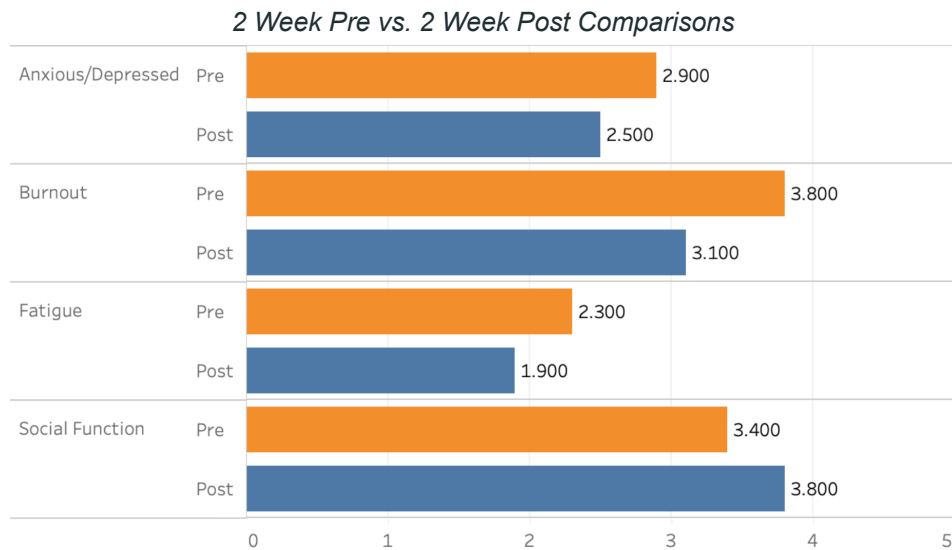
ii. Post Session Results

1. Of the 42 respondents who reported the day after their session, 17 (41%) journeyed alone and 13 (31%) journeyed with friends who were also using psilocybin. 24 (57%) rated the session as extremely positive and 1 (2%) rated it neither positive nor negative. 1 (2%) sought medical or psychological treatment.
2. Of the 32 respondents who reported 2 weeks after their session, 29 (90%) considered the experience to create a positive change in well-being or life satisfaction. 10 (31%) rated their session as in their top 10 meaningful life experience, 11 (34%) rated it in their top 10 most insightful life experience, and 6 (19%) rated it in their



top 10 challenging or difficult life experiences.

3. 30 (94%) reported no persisting negative effects after their session, 1 person reported mood fluctuations, and 1 person reported lowered motivation and depressive notions. 17 (53%) reported improved relationships, 9 (28%) reported increased physical activity, 7 (23%) reported improvements in career and work life, and 6 (19%) reported no notable changes in behavior.
4. In comparisons from data collected in the 2 weeks prior to a session (N=84) and 2 weeks post session (N=32), the mean on PROMIS-Global Health Inventory and Copenhagen Burnout Inventory showed statistically-significant improvements in anxiety & depression, burnout, fatigue, and social function.



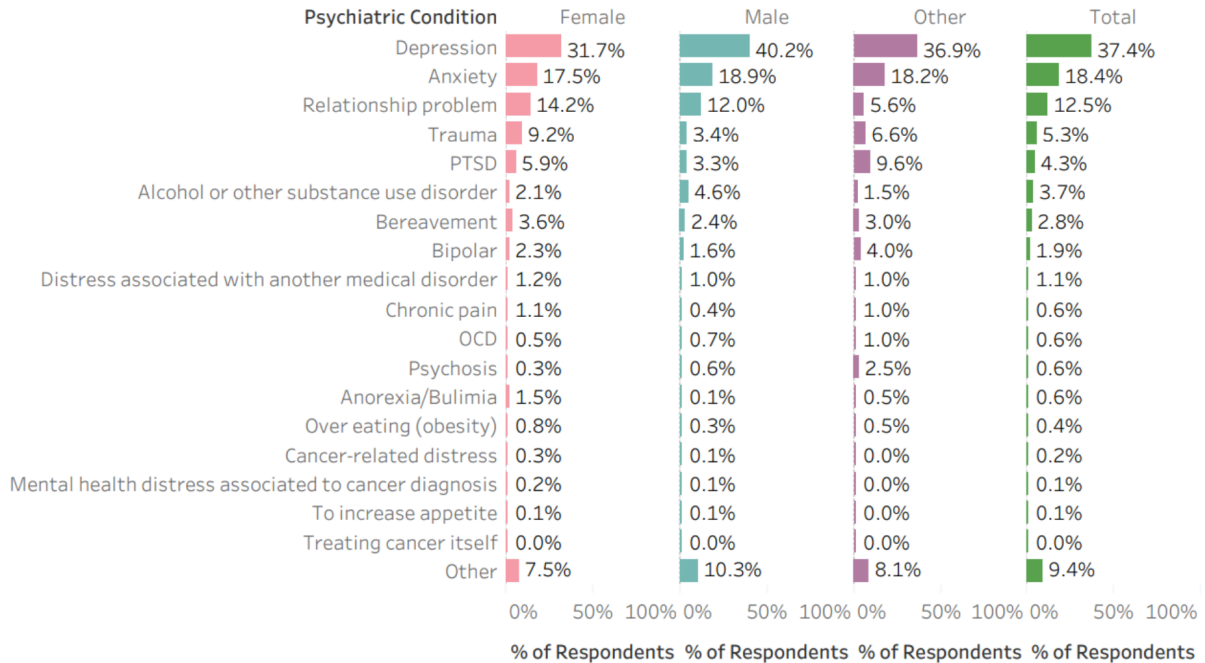
2. Global Drug Survey

- a. The Global Drug Survey 2020 Psychedelics Key Findings Report includes data obtained from over 25 countries, including the United States. Over 6,500 people responded to their section exploring self-treatment with psychedelics, for which psilocybin mushrooms was one of the most commonly used substances.
- b. Of the 6,500 respondents with psychiatric conditions or other worries, “the most common underlying factors for self-treatment with psychedelics were depression, anxiety, and relationship problems. The findings suggest there are many people



with common pre-existing conditions for whom existing treatment modalities are either insufficient or unattractive to engage with.”⁴¹

Most common psychiatric condition / emotional distress people sought to manage with psychedelics



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3. Underground Psilocybin Practitioners Study

- a. The Nowak Society has partnered with Colorado State University to investigate the perspectives and experiences of practitioners who have experience with “underground” facilitation or guidance of clients using psilocybin in therapeutic, healing, personal growth, or spiritual/religious settings. These investigations include interviews focused on practitioner training, mentorship, essential practices for preparing, guiding, and integrating psilocybin sessions, the benefits and risks of psilocybin, and perceived needs for regulation.
- b. Interviews are ongoing, but preliminary findings demonstrate promising results from psilocybin sessions and emphasize the need for practitioner accountability and high ethical standards, including screening potential clients, ensuring the safety of clients, and providing follow-up support. Refer to *Appendix D* for a full

⁴¹ Winstock AR, Timmerman C, Davies E, Maier LJ, Zhuparris A, Ferris JA, Barratt MJ & Kuypers KPC (2021). Global Drug Survey (GDS) 2020 Psychedelics Key Findings Report.



summary of the study.

4. Fireside Project

- a. Fireside Project operates a Psychedelic Peer Support Line, available to Denver residents, which provides free, confidential support by phone and text messages to people who are in the midst of psychedelic experiences. They also support people who are processing past psychedelic experiences.
- b. They have partnered with the UCSF School of Medicine to conduct a study to explore the effectiveness of the support line as an effective risk reduction tool. Analysis of the Fireside Project's first few months of operation provides compelling evidence to its potential as a critical service, including averting people from 911 calls and ER visits, de-escalating people from psychological distress, and preventing emotional or physical harm related to the use of psychedelics. Refer to *Appendix E* for a full summary of Fireside Project's services.

Services Available for Denver Residents

1. There are many businesses and organizations (*see Appendix F*) in the Denver Metro Area offering education on the informed use of psychedelics, preparation and integration services for pre- and post-psilocybin experiences, legal services, peer-support and psychedelic sitter training, therapy, drug testing, cultivation, and community-based programs. These organizations are accessible to Denver residents and available to work with City and County of Denver government officials and agencies.

Conclusion

1. The City and County of Denver is already reimagining local drug enforcement policies with the Denver Co-Responder's Unit, the STAR Program, and the development of the Multi Responder Training (*see Section V*). As city priorities shift toward providing treatment and mental health services instead of jail for drug offenders, public support for new mental and behavioral health options, like psilocybin, is increasing.
2. Psilocybin enforcement has always been historically low, usually accounting for <1% of total drug and alcohol cases nationally. Denver is no different, and arrests have decreased since decriminalization. With minimal arrests, no record of hospitalizations or reported adverse health outcomes, and no known organized crime elements, psilocybin mushrooms appear to be a low risk to public health and safety in Denver. More data should be collected for ongoing safety monitoring and long-term impacts.



3. Preliminary university-level observational data for Colorado suggests that the personal use of psilocybin mushrooms is safe for most participants and used for health and mental wellness reasons. Global data that suggests psilocybin is not only far safer than alcohol and other drugs of abuse, but that individuals consume psilocybin to manage depression, anxiety, and other traumas. Local and global data also suggests that events requiring emergency medical treatment are uncommon. This information is promising and highlights the need for ongoing data collection, reporting, and public education to ensure people are properly informed, understand the risks and the benefits, and know how to use psilocybin mushrooms in a responsible way.
4. Individuals can become educated, seek support if needed, and get involved with over a dozen local organizations. While a robust, dedicated, grassroots network is growing in Denver, the city is evolving into an international hub for the psychedelic movement.
5. By working with community leaders and organizations in the local psychedelic ecosystem, and incubating publicly supported models for safe psilocybin use and access, Denver has the opportunity to lead on mental and behavioral health solutions that may provide short and long term benefits.



VII. PSYCHEDELIC REFORM IN OTHER U.S. MUNICIPALITIES

Oakland, CA

1. On June 5, 2019, Oakland City Council adopted the resolution (“DNO Initiative”), making the enforcement of laws prohibiting the planting, cultivating, purchasing, transporting, distributing, possession or use of entheogenic compounds to be among the lowest law enforcement priorities for Oakland. The DNO Initiative law is broader than Denver’s law because it applies to all entheogens, which includes ayahuasca, iboga, psilocybin, and any other forms of psychedelic compounds derived from cactus, plant or fungus. Like the Denver initiative, the DNO Initiative prohibited the City from spending any resources for the investigation, detention, arrest, or prosecution of violations of state or federal law related to the use or possession of naturally occurring psychedelics, or entheogens.

Santa Cruz, CA

1. Santa Cruz, California passed an ordinance similar to the Oakland ordinance, declaring the City’s “desire to not expend City resources in the investigation and arrest of persons twenty-one (21) years of age and older solely for the personal use and personal possession of Entheogenic Plants and Fungi listed on the Federal Schedule 1 list and that such activities should be considered among the lowest law enforcement priorities for the City of Santa Cruz.”

Ann Arbor, MI

1. Ann Arbor, Michigan passed a resolution declaring “that it shall be the policy of the City of Ann Arbor that the investigation and arrest of persons for planting, cultivating, purchasing, transporting, distributing, engaging in practices with, or possessing Entheogenic Plants or plant compounds which are on the Federal Schedule 1 list shall be the lowest law enforcement priority for the City of Ann Arbor.”



Washington, DC

1. In November 2020, voters in Washington, D.C. passed Initiative 81. The Initiative made “the investigation and arrest of persons 18 years of age or older, for non-commercial planting, cultivating, purchasing, transporting, distributing, engaging in practices with, and/or possessing entheogenic plants and fungi ... as among its lowest enforcement priorities.”

Oregon

1. In November 2020, Oregon voters passed by a 56% majority the Oregon Psilocybin Program Initiative (“OR Initiative”). The OR Initiative allows for the following: limited licenses for manufacturing psilocybin products, for facilitating psilocybin services, and for testing psilocybin products. The Oregon Health Authority is tasked with developing standards for providing psilocybin services to adults 21 years of age and over through a process that consists of preparation, administration, and integration services. The OR Initiative has a two year phase in period, during which time regulations will be developed. Licenses will begin being issued in 2022.

Oakland, CA / OCHI

1. In the fall of 2020, proponents from the Decriminalize Nature Oakland organization drafted and introduced in the City Council the Oakland Community Health Initiative (“OCHI”). The OCHI would establish a framework for the City of Oakland to register Facilitators and Participants in a program allowing these registrants to receive special protections from the City for activities involving entheogens, such as the sacramental or ceremonial use of entheogens. Under the Ordinance, community-based organizations can recommend Facilitators and Participants to the City. Facilitators and Participants have to register with the City to receive protections under the Ordinance, which include (a) protections from arrest, prosecution, criminal sanctions, or civil consequences from the City; (b) a promise by the City to legally defend these registrants upon arrest or prosecution for activities involving entheogens, and (c) a commitment that the City will not assist the U.S. Drug Enforcement Administration in investigating any activity protected by the OCHI. The measure has not passed at this time.

Seattle, WA

1. Advocates of reform in the City of Seattle are working on an initiative to be introduced with the City Council which would make entheogen related activities the lowest law



enforcement priority for the City of Seattle, and prohibiting the City from expend any city funds on the investigation, arrest of persons or community-based organizations for engaging in entheogen related activities. "Entheogen related activities" means propagation, cultivation, preparation, distillation, personal possession, transport, storage, sharing, exchange, or consumption of, or facilitation of community healing ceremonies involving Entheogens. The measure has not been introduced at this time.

California

1. In 2021, State Senator Wiener from San Francisco introduced Senate Bill 519 in the California legislature to decriminalize all psychedelics having medical benefit. This bill has been approved by the Senate Committees on Public Health, Public Safety, and Appropriations, and passed a vote of the entire Senate on June 1, 2021. It has been ordered to the Assembly for consideration.

Florida

1. Rep. Michael Grieco (D) filed legislation in Florida in January 2021 that models the Oregon Psilocybin Program to legalize the therapeutic use of psilocybin in the state and also deprioritize a wide range of psychedelic plants and fungi.

Texas

1. HB 1802 "would require the state to study the medical risks and benefits of psilocybin, MDMA and ketamine for military veterans in partnership with Baylor College of Medicine and a military-focused medical center. It was also amended to mandate a clinical trial into psilocybin for veterans with PTSD, in addition to a broader review of the scientific literature on all three substances."⁴² It passed both the Texas House and Senate and is awaiting signature from Texas Governor Greg Abbott.

Connecticut

1. On June 7, 2021 language incorporated into SB 1083 was signed by Connecticut Governor Ned Lamont "requiring the state to carry out a study into the therapeutic

⁴²<https://www.marijuanamoment.net/texas-senate-advances-bill-to-study-healing-potential-of-psychedelics-like-psilocybin-and-mdma/>



potential of psilocybin mushrooms”⁴³ and issue a report to the legislature by January 1, 2022.

Somerville, MA

1. On January 14, 2021 the Somerville City Council unanimously voted to make the “investigation and arrest of adult persons for planting, cultivating, purchasing, transporting, distributing, engaging in practices with, and/or possessing entheogenic plants...amongst the lowest law enforcement priority for the City of Somerville.

Cambridge, MA

1. On February 3, 2021, the Cambridge City Council adopted a policy order that the “investigation and arrest of adult persons for planting, cultivating, purchasing, transporting, distributing, engaging in practices with, and/or possessing entheogenic plants...shall be amongst the lowest law enforcement priority for the City of Cambridge.”

Northampton, MA

1. On March 18, 2021 the Northampton City Council adopted a resolution to decriminalize possession of controlled substances including the cultivation and distribution of psychedelic plants. The resolution makes “the investigation and arrest of adult persons for planting, cultivating, purchasing, transporting, distributing, engaging in practices with, and/or possessing entheogenic plants...amongst the lowest law enforcement priority for the City of Northampton.”

⁴³<https://www.marijuanamoment.net/connecticut-governor-signs-psychedelics-study-measure-as-he-awaits-marijuana-legalization-bill/>



VIII. RECOMMENDATIONS TO CITY COUNCIL

Multi Responder Training

1. **RECOMMENDATION:** *Train City and County of Denver first responders, including all active first responders within the Denver Police Department, Denver Sheriff Department, Denver Paramedics, Denver Mental Health, Denver Fire Department, and STAR program, to maximize public and officer safety while minimizing liability through specific instruction regarding appropriate recognition and response to persons undergoing psychedelic crisis.*
 - a. MAPS' Multi Responder Training is a first-of-its-kind curriculum designed for law enforcement to reduce risk to Denver residents and first responders and minimize the risk of liability for adverse outcomes.
2. **RECOMMENDATION:** *To continue to collaborate with MAPS on development and implementation of psilocybin harm reduction training.*
3. **RECOMMENDATION:** *To consider resource, timing, staff, and financial implications of the post-pilot roll-out of the project across over 4,000 City and County of Denver first responders.*

Public Service Programs

1. **RECOMMENDATION:** *Produce co-branded educational public service announcements & programs in Denver to educate the public regarding psilocybin use and access to harm reduction services in the city.*
 - a. Education related to the safe and informed use of psilocybin should be a high priority for the City and County of Denver to minimize risk to Denver residents.
 - b. A number of local organizations (listed in Section VI of this report) exist to provide services to Denver residents, and the City and County of Denver can collaborate with these organizations to create public-facing messaging.



Data Collection and Reporting

1. **RECOMMENDATION:** *Create a data collection reporting system for law enforcement, paramedics, hospitalizations, and emergency rooms for any interactions involving psilocybin for ongoing public safety monitoring.*
 - a. Current gaps in law enforcement, first responder, and emergency department reporting for psilocybin make it difficult to assess and analyze the impact of decriminalization in the City and County of Denver. Standardized reporting procedures are required in order to accurately understand use outcomes for psilocybin.

Decriminalization

1. **RECOMMENDATION:** *Make the sharing/gifting of psilocybin among the lowest law enforcement priority.*
 - a. State law currently does not distinguish gifting or sharing controlled substances from felony distribution. As long as individuals are not distributing large quantities of psilocybin for commercial use or profit, the City and County of Denver should allow for individuals to gift or exchange personal amounts of psilocybin mushrooms without law enforcement intervention.
2. **RECOMMENDATION:** *Make the communal use of psilocybin among the lowest law enforcement priority.*
 - a. Psilocybin mushrooms have been utilized in a community setting for thousands of years and still are to this day. Recent studies also suggest that communal use of psychedelics can lead to enduring prosocial benefits. The City and County of Denver should allow for the private, communal use of psilocybin for those who are engaging in ethical practices to address health and mental wellness issues.

Inclusivity

1. **RECOMMENDATION:** *Expand voting panel members to promote inclusivity and better reflect Denver's diversity.*



- a. The panel needs to be representative of the communities that will be impacted by future policy changes in Denver, and all populations must be represented in order to ensure for racial and health equity.

Therapy

1. **RECOMMENDATION:** *Determine how psilocybin therapy can be applied to address mental health issues in Denver.*

- a. According to a 2021 study⁴⁴ conducted by Mental Health America, Colorado is among the worst states in the country in terms of mental health and access to mental healthcare, ranking 48 out of 51. Colorado is in a mental health emergency and Denver is no exception. Psilocybin may be a novel solution and the City and County of Denver has the opportunity to lead the nation in terms of safe therapeutic and community access to psilocybin.
- b. The City and County of Denver can:
 - i. implement safe/therapeutic use sites, including but not limited to cooperatives and community organizations.
 - ii. explore psilocybin clinical research for active and retired first responders, military veterans, and others suffering from PTSD, anxiety, and substance abuse in Denver.
 - iii. consider the establishment of a psychedelic research center associated with a local university to explore psilocybin-related treatment for widespread mental health conditions.
 - iv. consider the support of associated commercial and noncommercial organizations focused on the development of mental health services and products based on psilocybin.

⁴⁴ <https://mhanational.org/issues/2021/ranking-states>

IX. CONCLUSION

1. The City and County of Denver has a unique opportunity to establish itself as a beacon for health, mental wellness, cognitive liberty, and building thriving & connected communities with psilocybin mushrooms and their counterparts. At no other time in our nation's history is it more apparent that we need better health education and access to more effective options that don't simply treat the surface symptoms of depression, anxiety, and substance abuse, but go straight to the root of the issues and illuminate a pathway to healing. Denver officials should not simply consider, but wholeheartedly embrace the potential of psilocybin mushrooms to address some of the city's most pressing social, behavioral, and mental health issues.
2. In the 17 months since the Denver Psilocybin Mushroom Policy Review Panel first convened we learned that psilocybin is safe for most people when used with a sitter or guide, that most self-reporting users do so in an informed and educated manner with personal growth and mental health in mind, that the extremely low number of arrests for psilocybin are made with other illicit substances involved or for amounts greater than for personal consumption, and there is a tremendous amount of clinical evidence suggesting psilocybin is an effective option to treat mental and behavioral health issues. In short, the concerns of I-301's opposition were unwarranted, clinical research demonstrates psilocybin's safety and utility and, according to available data, most people use psilocybin in safe and responsible ways.
3. With safety as the highest priority, the understanding that mistakes will be made with any substance that alters perception, and knowing that laws already exist to enforce any public health or safety risks, the Panel recommends that the City and County of Denver embrace the will of the voters of Initiative 301 and allow residents to gather in community and in private to work with psilocybin so they are not at further legal risk. The Panel also recommends that the city empower law enforcement and other first responders with the psychedelic harm reduction tools they need to safely de-escalate any situation that puts residents and/or officers at risk and to minimize the city's liability. Furthermore, the Panel acknowledges that while the safety of psilocybin is already determined and that no major risks to public health or safety have occurred since psilocybin has been decriminalized, more data is warranted to explore how psilocybin mushrooms are having a direct impact on residents and local communities. As such, the Panel recommends a data collection and reporting system be established to gain a better understanding of the impacts psilocybin may or may not have in Denver. Additionally, the Panel recommends that the city fulfill its duties as described in Chapter 28, Sec. 28-17 of the Denver Revised Municipal Code and work with nonprofits and other organizations to educate the public and meet community needs regarding psilocybin, including creating public service



programs and exploring the therapeutic use of psilocybin in Denver.

4. The success of Initiative 301 signaled a paradigm shift in public attitudes toward psilocybin mushrooms and other psychedelics, a mindset represented not only in Denver but by many cities and states nationwide and millions of American voters. In addition to citizens changing laws through initiative or referendum, cities and states have the opportunity to acknowledge and get ahead of the trend by taking action and creating new policies for psilocybin based on social and health equity and personal & community autonomy. While Denver residents catalyzed this renaissance of psychedelic reform, the City and County of Denver has the opportunity to follow suit and take further steps to maximize the benefits and reduce the risks of psilocybin mushrooms by creating new policies that reduce harm, enable self-governance, and create access to more effective healing and treatment options.



APPENDIX A:

Text of Initiative 301

DENVER REVISED MUNICIPAL CODE

CHAPTER 28 - HUMAN RIGHTS

ARTICLE X. PUBLIC SAFETY ENFORCEMENT PRIORITIES—GENERAL

Sec. 28-300. Purpose and intent.

The purpose and intent of this article is to: 1) deprioritize, to the greatest extent possible, imposition of criminal penalties on persons twenty-one (21) years of age and older for the personal use and personal possession of psilocybin mushrooms; and 2) prohibit the City and County of Denver from spending resources on imposing criminal penalties on persons twenty-one (21) years of age and older for the personal use and personal possession of psilocybin mushrooms.

(Ord. No. 301-20, § 1, 11-23-20)

Sec. 28-301. Defined terms.

As used in this article, the following words and phrases shall have the meanings given to them in this section except where the context clearly indicates and requires a different meaning:

- (1) *Adult* means an individual twenty-one (21) years of age or older.
- (2) *Psilocybin mushrooms* shall mean fungal matter containing psilocybin, psilocin, baeocystin, or nor-baeocystin.
- (3) *Personal possession* shall mean the possession, storage or propagation of psilocybin mushrooms by an adult for personal use, where the psilocybin mushrooms are not used or displayed in public; the sale of psilocybin mushrooms for remuneration is not included in the definition of personal possession and is subject to prosecution under existing state laws.

(Ord. No. 301-20, § 1, 11-23-20)

Sec. 28-302. Enforcement priority—Psilocybin mushrooms.

The enforcement of any laws imposing criminal penalties for the personal use and personal possession of psilocybin mushrooms as those terms are defined herein shall be the lowest law enforcement priority in the City and County of Denver.

(Ord. No. 301-20, § 1, 11-23-20)

Sec. 28-303. Use of city funds and resources limited; exceptions.



Except as specifically authorized in this article X, no department, agency, board, commission, officer or employee of the city, including without limitation, county court administrative and clerical employees, probation, pre-trial services and community corrections personnel, shall use any city funds or resources to assist in the enforcement of laws imposing criminal penalties for the personal use and personal possession of psilocybin mushrooms by adults.

(Ord. No. 301-20, § 1, 11-23-20)

Sec. 28-304. Psilocybin mushroom policy review panel.

On or before December 31, 2019, the mayor of the City of Denver shall appoint an eleven (11) member psilocybin mushroom policy review panel (the "panel") to assess and report on the effects of this article X. The panel shall consist of two (2) members of the city council, two (2) citizen members who are or who are substituted by the

Petitioner's committee who petitioned for adoption of this article X, one (1) CAC-II certified addictions counselor, one (1) harm reduction advocate, one (1) representative of the Denver Police Department, one (1) representative of the Denver Sheriff Department, one (1) criminal defense attorney, one (1) representative of the Office of the Denver District Attorney, and one (1) representative of the Denver City Attorney's Office. The mayor shall appoint members to vacancies on the panel as necessary. The Panel shall:

- (1) Elect a chairperson and meet at least quarterly or more frequently as necessary;
- (2) By the March 31 immediately following the adoption of the article, establish reporting criteria for the Denver Police Department, the Denver Sheriff Department, and Denver City Attorney's Office to report psilocybin mushroom arrests and prosecutions; and
- (3) Submit a comprehensive written report with recommendations to the city council that will include, but not be limited to, information concerning the public safety, public administration, public health and fiscal impacts of this article X. This report shall be completed and presented at the first available city council committee meeting for calendar year 2021.

(Ord. No. 301-20, § 1, 11-23-20)

Sec. 28-305. Self-executing, severability, and conflicting provisions.

If any term, clause, provision, or part of this article X or its application is held invalid or unenforceable, such invalidity or unenforceability shall not affect other terms, clauses, provisions, parts or applications of this article X that can be given effect without the invalid terms, clauses, provisions, parts or applications. All terms, clauses, provisions, parts and applications of this article are self-executing except as specified herein, are severable, and except where otherwise indicated in the text shall supersede conflicting provisions of the Revised Municipal Code and any regulations promulgated thereto.

(Ord. No. 301-20, § 1, 11-23-20)



APPENDIX B: Psilocybin Cases Since May 8, 2019 (DA Data)

Total number of Cases: 47

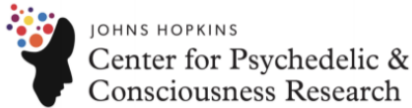
Court Num	Case Status	Filed Date	Unit	Def Age	Def Race	Charge Num	Charge	Disposition	Actual Sentence	Intoxicant
19CR03498	SENTENCED	05/10/2019	DISTRICT	35	WHITE	1	POSSESSION WITH INTENT TO MANUFACTURE OR	PLEAD GUILTY/DEFERRED		MARIJUANA
19CR03875	CASE CLOSED	06/03/2019	DISTRICT COURT	35	WHITE	1	POSSESSION WITH INTENT TO MANUFACTURE OR DISTRIBUTE A CONTROLLED SUBSTANCE - SCHEDULE I	DMDA (COUNT DISMISSED BY D.A.)		PSILOCYN
19CR06706	CASE CLOSED	09/10/2019	DISTRICT COURT	27	WHITE	1	POSSESSION OF A CONTROLLED SUBSTANCE	DMDA (COUNT DISMISSED BY D.A.)		PSILOCYN
19CR07078	CASE CLOSED	09/23/2019	DISTRICT COURT	63	WHITE	1	SPECIAL OFFENDER	DMDA (COUNT DISMISSED BY D.A.)		None
19CR07388	CASE CLOSED	10/02/2019	DISTRICT COURT	31	WHITE	1	POSSESSION OF A CONTROLLED SUBSTANCE	DMDA (COUNT DISMISSED BY D.A.)		METHAMPHETA MINE
19CR07958	OPEN	10/29/2019	DISTRICT	27	NATIVE	1	POSSESSION WITH INTENT TO MANUFACTURE OR			COCAINE
19CR08013	OPEN	10/30/2019	DRUG COURT	28	WHITE	1	POSSESSION OF A CONTROLLED SUBSTANCE			PSILOCYN
19CR08094	CASE CLOSED	10/30/2019	DISTRICT COURT	36	BLACK	1	DISTRIBUTION OF A CONTROLLED SUBSTANCE - SCHEDULE I OR II	DMDA (COUNT DISMISSED BY D.A.)		COCAINE
19CR08285	SENTENCED	11/15/2019	DISTRICT COURT	25	WHITE	1	DISTRIBUTION OF A CONTROLLED SUBSTANCE - SCHEDULE I OR II - 14-225 GRAMS	DMDA (COUNT DISMISSED BY D.A.)		PSILOCYN
19CR08590	CASE CLOSED	11/18/2019	DISTRICT COURT	25	WHITE	1	POSSESSION OF A CONTROLLED SUBSTANCE	DMDA (COUNT DISMISSED BY D.A.)		METHAMPHETA MINE
19CR08679	CASE CLOSED	11/22/2019	DISTRICT COURT	31	BLACK	1	POSSESSION WITH INTENT TO MANUFACTURE OR DISTRIBUTE A CONTROLLED SUBSTANCE - SCHEDULE I	DMDA (COUNT DISMISSED BY D.A.)		COCAINE
19CR09448	CASE CLOSED	12/23/2019	DISTRICT COURT	18	WHITE	1	POSSESSION OF A CONTROLLED SUBSTANCE	DMDA (COUNT DISMISSED BY D.A.)		PSILOCYN
19CR09632	CASE CLOSED	01/08/2020	DISTRICT COURT	28	WHITE	1	POSSESSION WITH INTENT TO MANUFACTURE OR DISTRIBUTE A CONTROLLED SUBSTANCE - SCHEDULE I	DMDA (COUNT DISMISSED BY D.A.)		PSILOCYN
19JD00748	DIVERSION - OPEN	10/18/2019	JUVENILE COURT	17	WHITE	1	POSSESSION OF A CONTROLLED SUBSTANCE	DMDA (COUNT DISMISSED BY D.A.)		PSILOCYN
19JD00750	DIVERSION - OPEN	10/18/2019	JUVENILE COURT	17	ASIAN	1	POSSESSION OF A CONTROLLED SUBSTANCE	DMDA (COUNT DISMISSED BY D.A.)		PSILOCYN
20CR00202	CASE CLOSED	01/07/2020	DISTRICT COURT	29	WHITE	1	SPECIAL OFFENDER	DMDA (COUNT DISMISSED BY D.A.)		None
20CR00656	WARRANT	02/06/2020	DISTRICT	60	WHITE	1	SPECIAL OFFENDER			None
20CR00805	CASE CLOSED	01/31/2020	DISTRICT	49	WHITE	1	POSSESSION OF A CONTROLLED SUBSTANCE			HEROIN
20CR02812	OPEN	06/05/2020	DISTRICT	24	BLACK	1	MANUFACTURING A CONTROLLED SUBSTANCE -			PSILOCYN
20CR03249	SENTENCED	06/03/2020	DISTRICT COURT	23	WHITE	1	POSSESSION WITH INTENT TO MANUFACTURE OR DISTRIBUTE A CONTROLLED SUBSTANCE - SCHEDULE I	DMDA (COUNT DISMISSED BY D.A.)		PSILOCYN
20CR03834	CASE CLOSED	06/30/2020	DISTRICT COURT	41	WHITE	1	IMITATION CONTROLLED SUBSTANCE VIOLATION	DMDA (COUNT DISMISSED BY D.A.)		PSILOCYBIN
20CR04190	OPEN	07/21/2020	DISTRICT COURT	41	WHITE	1	POSSESSION WITH INTENT TO MANUFACTURE OR DISTRIBUTE A CONTROLLED SUBSTANCE	PLEAD GUILTY		METHAMPHETA MINE
20CR04191	WARRANT	07/21/2020	DISTRICT COURT	27	WHITE	1	POSSESSION WITH INTENT TO MANUFACTURE OR DISTRIBUTE A CONTROLLED SUBSTANCE			METHAMPHETA MINE
20CR04228	CASE CLOSED	08/27/2020	DISTRICT COURT	45	WHITE	1	SPECIAL OFFENDER	DMDA (COUNT DISMISSED BY D.A.)		None
20CR04442	OPEN	08/04/2020	DISTRICT COURT	31	WHITE	1	POSSESSION WITH INTENT TO MANUFACTURE OR DISTRIBUTE A CONTROLLED SUBSTANCE			METHAMPHETA MINE
20CR04574	CASE CLOSED	08/10/2020	DISTRICT COURT	40	WHITE	1	UNLAWFUL POSSESSION OF A CONTROLLED SUBSTANCE	DMDA (COUNT DISMISSED BY D.A.)		METHAMPHETA MINE
20CR04978	WARRANT	08/28/2020	DISTRICT	28	WHITE	1	SPECIAL OFFENDER			None
20CR04985	OPEN	09/10/2020	DISTRICT	34	WHITE	1	SPECIAL OFFENDER			None
20CR04986	CASE CLOSED	09/10/2020	DISTRICT COURT	27	WHITE	1	SPECIAL OFFENDER	DMDA (COUNT DISMISSED BY D.A.)		None
20CR05080	OPEN	09/11/2020	DISTRICT	43	BLACK	1	SPECIAL OFFENDER			None
20CR05707	OPEN	10/06/2020	DISTRICT	53	WHITE	1	SPECIAL OFFENDER			None
20CR05731	WARRANT	10/06/2020	DISTRICT	29	WHITE	1	UNLAWFUL POSSESSION OF A CONTROLLED			PSILOCYN
20CR05903	OPEN	10/14/2020	DISTRICT	29	BLACK	1	SPECIAL OFFENDER			None
20CR06109	OPEN	10/26/2020	DISTRICT	29	WHITE	1	POSSESSION WITH INTENT TO MANUFACTURE OR			PSILOCYN
20CR07444	OPEN	01/05/2021	DISTRICT	27	WHITE	1	POSSESSION WITH INTENT TO MANUFACTURE OR			PSILOCYN
20JD00064	DIVERSION - OPEN	02/03/2020	JUVENILE COURT	16	WHITE	1	"POSSESSION OF A CONTROLLED SUBSTANCE - SCHEDULE III, IV, OR V"	DMDA (COUNT DISMISSED BY D.A.)		PSILOCYBIN
21CR00174	OPEN	01/13/2021	DISTRICT	29	WHITE	1	SPECIAL OFFENDER			None
21CR00837	WARRANT	02/16/2021	DISTRICT COURT	29	WHITE	1	POSSESSION WITH INTENT TO MANUFACTURE OR DISTRIBUTE A CONTROLLED SUBSTANCE			METHAMPHETA MINE
21CR00920	OPEN	02/24/2021	DISTRICT COURT	54	WHITE	1	POSSESSION WITH INTENT TO MANUFACTURE OR DISTRIBUTE A CONTROLLED SUBSTANCE			METHAMPHETA MINE
21CR01138	OPEN	02/25/2021	DISTRICT	22	WHITE	1	POSSESSION WITH INTENT TO MANUFACTURE OR			PSILOCYN
21CR01602	OPEN	03/25/2021	DISTRICT	20	WHITE	1	SPECIAL OFFENDER			None
21CR02224	OPEN	04/16/2021	GANG UNIT	31	BLACK	1	POSSESSION WITH INTENT TO MANUFACTURE OR			PSILOCYN
21CR02364	OPEN	04/28/2021	DISTRICT	31	WHITE	1	SPECIAL OFFENDER			None
21CR02699	OPEN	05/11/2021	DISTRICT	25	WHITE	1	POSSESSION WITH INTENT TO MANUFACTURE OR			PSILOCYN
21CR03356	OPEN	06/12/2021	DISTRICT	32	WHITE	1	POSSESSION WITH INTENT TO MANUFACTURE OR			PSILOCYBIN
21CR03357	OPEN	06/09/2021	DISTRICT	28	WHITE	1	SPECIAL OFFENDER			None
21CR03456	OPEN	06/15/2021	DISTRICT COURT	32	WHITE	1	POSSESSION WITH INTENT TO MANUFACTURE OR DISTRIBUTE A CONTROLLED SUBSTANCE			METHAMPHETA MINE



APPENDIX C:

Unlimited Sciences Data

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Unlimited Sciences Progress Report - Colorado Data

Preliminary Data as of 4/19/2021 (launched on 8/21/2020):

- Consent survey, N = 221 (n=89 in Denver)
- 2 week pre survey, N = 84
- Session day survey (before use), N = 53
- Day after survey, N = 42
- 2 weeks post survey, N = 32
- 2 months post survey, N = 16

Basic demographics (Consent Survey, N = 221):

- Mean (SD) Age = 37.6 (12.1); Sex: Female, 90 (41%); Male 127, (58%); Other, 4 (2%)
- Race: Caucasian, 185 (84%); Mixed, 18 (8%); Asian, 5 (2%); Black, 1 (<1%); Hispanic, 22 (10%)
- Education: Bachelor's, 98 (44%); Some college, 37 (17%); Master's, 39 (18%)
- Current Anxiety disorder, 64 (29%); Mood disorder, 48 (22%); Chronic Pain, 19 (9%); None, 74 (34%)
- Primary reason for use: Self-exploration, 93 (42%); Mental health, 66 (30%); Therapy, 17 (8%); Recreation, 13 (6%)

Demographics (2 Week Pre Survey, N = 84):

- First-time psychedelic user, 13 (16%)
 - Mean (SD) lifetime psilo use = 16 (16) occasions
 - Current regular use: Caffeine, 62 (74%); Cannabis, 51 (61%); Alcohol, 33 (40%); Tobacco, 11 (13%); No other substance use, 4 (5%)
 - Employed Full-time, 43 (51%); Part-time, 12 (14%); Unemployed, 11 (13%); Student, 9 (11%)
- Session Day (Before Use; N = 53):
- Mean (SD) reported dose: 2.8 (1.7) grams
 - 46 (87%) set an intention, "My intention is to better understand how I can help the world, be productive and to relieve day to day anxiety."
 - 17 (32%) report a sitter will be present



Day After Session (N = 42):

- 17 (41%) journeyed alone; 13 (31%) journeyed with friends who were also using psilocybin
- Most sessions took place primarily at home 27 (64%), or outdoors in nature 9, (21%) • 24 (57%) rated session as “Extremely positive”, while only 1 (2%) rated it Not particularly positive or negative, and no ratings of Negative
- 1 (2%) sought medical or psychological treatment

Day After Session (N = 42):

- Session Narratives: “It became very easy to approach the issues bothering me from a fresh, distanced perspective. The first two hours were quiet music and meditation with some closed eye visuals. Afterward, I watched nature and travel videos, feeling more in tune with the videos and noticing much more in the background than normal. Very peaceful after the initial anxiety of the come up.”

2 Week Post, N = 32:

- 10 (31%) rated as top 10 meaningful life experience;
- 11 (34%) rated as top 10 insightful life experience;
- 6 (19%) rated as top 10 challenging / difficult life experience
- Most, (90%) considered the experience to create a positive change in well-being or life satisfaction, 43 (9%) cited No Change, and 8 (2%) cited negative changes • Most, 30 (94%) reported no persisting negative effects after session, 1 (3%) reported mood fluctuations, 1 (3%) reported lowered motivation and depressive notions • Many, 17 (53%) reported improved relationships, increased physical activity 9 (28%), and improvements in career / work-life 7 (23%); 6 (19%) reported no notable changes in behavior

Comparisons

(2 Week Pre, N = 84 vs. 2 Week Post, N = 32):

Mean (SD) on PROMIS-Global Health Scale and Copenhagen Burnout Inventory

- Quality of Life 3.8 (0.9) Good – 3.8 (0.9) Very Good
- Physical Health 3.6 (1.0) Good – 3.5 (0.9) Very Good
- Social Function 3.4 (1.0) Good – 3.8 (0.9) Very Good*
- Mental Health 3.3 (1.1) Good – 3.6 (0.8) Very Good
- Relationships 3.1 (1.2) Good – 3.4 (1.0) Good
- Fatigue 2.3 (0.9) Mild – 1.9 (0.6) Mild*
- Anxious / Depressed 2.9 (1.2) Sometimes – 2.5 (0.8) Sometimes*
- Burnout 37.7 (18.8) Sometimes – 30.5 (15.1) Seldom*
- * statistically significant at $P < 0.05$

Limitations

- These findings still preliminary
- Data collection still in progress through (at least) Dec. 31, 2021
- Difficult or impossible to verify key factors like truthfulness of responses, drug dose • Participant self-selection, subject to bias



APPENDIX D:

Colorado State University & The Nowak Society Underground Psilocybin Practitioners Study

SUMMARY: Those who actually use mushrooms know them best. Researchers with CSU and the Nowak Society are interviewing underground psilocybin practitioners to hear their desires for future regulations.

IN DEPTH: A long history of “underground” practitioners exist who, operating in a gray legal realm, have passed along the knowledge of traditional and modern ways of working with psilocybin-containing mushrooms for depression and other human struggles. Since psilocybin is illegal in the U.S., the voices and experiences of “underground” practitioners are essentially excluded from public and scientific dialogue about safe and effective practices in this area. A group of researchers wanted to open the door to hear these crucial voices.

This year, an academic-community partnership between Colorado State University and The Nowak Society, 501c3 formed to investigate the perspectives and experiences of so-called “underground” psilocybin practitioners in Colorado through confidential in-depth interviews. Interviews are ongoing (15 interviews completed as of August 2021) and data are currently being analyzed. Most practitioners were White (86.7%) and female (60%), and all live and work in Colorado. Seven (46.7%) reported backgrounds as therapists, while others reported backgrounds ranging from theater and performing arts to computer science and corporate careers. All practitioners in this research study have past experience working with clients using psilocybin mushrooms within a therapeutic, healing, personal growth, or spiritual/religious modality. Practitioners reported using a range of psilocybin doses, from micro-dosing to macro-dosing, but in most cases only engaging larger doses after a certain amount of personal work or readiness by a client had been demonstrated.

Interviews focused on practitioner training, mentorship, essential practices for preparing, guiding, and integrating psilocybin sessions, benefits and risks of psilocybin, and perceived needs for regulation. Preliminary findings demonstrate that most practitioners carry multiple years of personal inner-directed work with altered states before guiding sessions with clients, along with formal and informal training and mentorship. Practitioners employed a variety of complementary modalities in their psilocybin practice, including breathwork, mindfulness techniques, nature-based practices, music, somatic practices, and traditional therapy modalities such as CBT or trauma therapies. Benefits of psilocybin observed by practitioners include positive effects on depression, fear/terror, problematic substance use, toxic relationships, spiritual well-being, and life purpose. Practitioners emphasize the importance of holding high ethical standards in their practice, including screening potential clients for their readiness to



engage psilocybin, ensuring safety of clients, and follow-up support. Practitioners further describe both the problems of practicing within the current prohibition model, and concerns about over-regulation and commodification should psilocybin be legalized and regulated. All practitioners agreed that standards of ethics should be established, along with mechanisms for accountability. A formal background in therapy was viewed by some practitioners as helpful, but not essential if other forms of mentorship were available. Isolation (i.e., not having communities of practice to visibly/legally connect with) and criminal risk were the largest barriers to safe practice. On the other hand, practitioners expressed significant concern about psilocybin practice being overly constrained by, for example, restricting gatekeeping access to certain professional groups who may not have any experience working with psilocybin. As practitioners described multiple pathways into psilocybin practice, with many modalities of practice employed, they generally viewed decriminalization as preferable to legalization. The research team expects to draw specific policy recommendations at the conclusion of this study. The final report from this study is expected to be ready in December 2021. More questions about the study can be directed to Shannon Hughes at shannon.hughes@colostate.edu



APPENDIX E:

Fireside Project Data

Fireside Project, a fiscally-sponsored non profit organization based in California, operates a Psychedelic Peer Support Line which provides free, confidential support by phone and text message to people who are in the midst of psychedelic experiences, including intense cannabis experiences. They also support people who are processing past psychedelic experiences, whether those experiences happened one day or many years earlier. At the end of every conversation, clients are offered a follow-up call the next week, which enables Fireside Project to provide clients with long-term support as they explore the meaning of their past psychedelic experiences.

The Psychedelic Peer Support Line launched on April 14, 2021. During an initial pilot period, the line is active from Thursday through Sunday, 4:00 p.m. to 4:00 a.m. MDT, and Monday from 4:00 p.m. to 8:00 p.m. MDT. Fireside Project anticipates expanding its hours to 24/7 in the coming months.

The support line is staffed by volunteers who have committed to work one four-hour shift per week for a full year. Each volunteer completes an intensive 36-hour training program designed by Fireside Project.

The Effectiveness of the Support Line as a Harm Reduction Service

Fireside Project has partnered with the UCSF School of Medicine to conduct a study that explores whether the Psychedelic Peer Support Line is an effective risk reduction tool. To evaluate this, all clients receive an anonymized post-call survey, and all volunteers complete data fields following every conversation.

The support line's first five weeks of operation provide compelling evidence of its potential as a critical harm-reduction service:

1. *Total conversations.* There were 355 conversations total.
 - a. 85 people were having psychedelic experiences, 113 people were processing past psychedelic experiences, 18 people were supporting others having psychedelic experiences, and 83 people were seeking information. (The remaining conversations were outside the scope of the support line.)
 - b. Fireside Project received an additional 625 calls when the support line was closed.
2. *911 Calls and ER Visits Averted.* 26 people indicated that but for Fireside Project, they would have called 911 or gone to the emergency room
3. *De-Escalation from Psychological Distress.* Fireside Project de-escalated 101 people from psychological distress.
4. *Emotional or Physical Harm.* 34 people indicated that Fireside Project helped them or someone else avoid physical or emotional harm.
5. *Heard, Supported, and Understood.* 90% of people indicated that they felt heard, supported, and understood, and would recommend Fireside Project to others.



Fireside Project's Collaboration with MAPS

Fireside Project has entered into a collaboration agreement with the Multidisciplinary Association of Psychedelic Studies (MAPS) to expand access to psychedelic peer support. MAPS Executive Director Rick Doblin stated, "As interest in psychedelics expands, the need for psychedelic peer support has never been greater. It is absolutely essential that there be a free, confidential, and around-the-clock resource for people to help them navigate and process their psychedelic experiences." Three members of the MAPS' Zendo Project are part of Fireside Project's Advisory Board, and a senior member of the Zendo Project, Chelsea Rose Pires, serves as a supervisor on Fireside Project's Psychedelic Peer Support Line.

Potential Partnership with the City and County of Denver

Fireside Project has expressed an interest in exploring a partnership with the City of Denver. The goal of that partnership would be to help Denver residents learn about and access the services provided on the Psychedelic Peer Support Line in order to help reduce the risks of unsupervised psychedelic use. Such a partnership could also save the City money on the costs of unnecessary 911 calls and emergency room visits.



APPENDIX F:

Services, Education, and Advocacy Organizations Available to Denver Residents

1. Altered States Integration | alteredstatesintegration.com
2. Barnes Caplan, LLP | barnescaplan.com
3. Cannabis Doing Good | cannabisdoinggood.com
4. DanceSafe | dancesafe.org
5. Fireside Project | firesideproject.org
6. Magic | magic.agency
7. Maya PBC | mayahealth.com
8. McAllister Law Office, P.C. | mcallisterlawoffice.com
9. Center for Medicinal Mindfulness | linktr.ee/MedicinalMindfulness
10. Mydelica | mydelica.com
11. PsyCann Advisors | psycannadvisors.com
12. Psychedelic Club of Denver | Facebook: [@denverpsychedelicclub](https://www.facebook.com/denverpsychedelicclub)
13. Psychedelic Research and Training Institute (PRATI) | pratigroup.org
14. Psychedelics Today | psychedelicstoday.com
15. Society for Psychedelic Outreach, Reform, and Education (SPORE) | thespore.org
16. The Nowak Society | nowaksociety.org
17. Unlimited Sciences | unlimitedsciences.org
18. Vicente Sederberg, LLP | vicentesederberg.com
19. Vote Nature | votenature.org

