TESTIMONY OF
THE DEPARTMENT OF THE ATTORNEY GENERAL
THIRTIETH LEGISLATURE, 2019

ON THE FOLLOWING MEASURE:
H.B. NO. 673, H.D. 1, RELATING TO MEDICAL CANNABIS.

BEFORE THE:
HOUSE COMMITTEE ON JUDICIARY

DATE: Thursday, February 14, 2019 **TIME:** 2:05 p.m.

LOCATION: State Capitol, Room 325

TESTIFIER(S): Clare E. Connors, Attorney General, or
Tara K.C.S. Molnar, Deputy Attorney General

Chair Lee and Members of the Committee:

The Department of the Attorney General provides comments on this bill.

This measure would: (1) add a section to chapter 329D, Hawaii Revised Statutes (HRS), and amend section 329D-3, HRS, to allow for the sale or transfer of a medical cannabis dispensary license; (2) amend section 329D-2, HRS, to allow a dispensary licensee to operate up to two separate manufacturing or processing facilities; (3) amend section 329D-6, HRS, to allow a dispensary to purchase medical cannabis and manufactured cannabis products from another dispensary in the event of a crop failure; and (4) amend section 329D-10, HRS, to allow a licensed dispensary to produce edible cannabis and cannabidiol products.

Comments on section 8, allowing up to two separate manufacturing or processing facilities. (page 11, line 5-14)

This bill allows a dispensary licensee to operate up to two separate manufacturing or processing facilities, that would not be considered production centers. Currently, section 329D-6(j)(1)(D), HRS, requires licensees to use a computer software tracking system to collect data relating to the transport of cannabis and manufactured cannabis products between production centers and retail dispensing locations. However, since the proposed wording excludes a manufacturing or processing facility from the two production center limit, cannabis and manufactured cannabis products

would not be tracked when being transported between a production center or retail dispensing location to a manufacturing or processing facility. If the Committee is inclined to move this measure forward, it may also want to consider requiring that a licensee use the computer software tracking system to collect data relating to the transport of cannabis and manufactured cannabis products between a production center or retail dispensing location to a manufacturing or processing facility. This would serve to deter the diversion of medical cannabis, which is regulated for reasons of public safety and remains a Schedule I substance under the federal Controlled Substances Act (CSA).

Comments on section 9, allowing a dispensary to produce edible cannabis. (page 20, line 19, through page 22, line 8)

In amending section 329D-10, HRS, to allow a licensed dispensary to produce edible cannabis and cannabidiol products, the measure does not specify minimum manufacturing standards. Second, it does not remove edible cannabis products from the definition of "food" in chapter 328, HRS, which prohibits production of things like edible cannabis and cannabidiol products because the addition of cannabinoids would render the product adulterated. If the Committee is inclined to allow the production of edible cannabis products, we suggest it make the following changes: (1) set forth minimum production standards and (2) remove edible cannabis products from the definition of "food" in chapter 328, HRS.

The Department of the Attorney General respectfully recommends that, if the Committee moves this measure forward, that it consider the foregoing suggestions.

DAVID Y. IGE
GOVERNOR OF HAWAII

BRUCE S. ANDERSON, Ph.D.
DIRECTOR OF HEALTH

STATE OF HAWAII
DEPARTMENT OF HEALTH
P. O. Box 3378
Honolulu, HI 96801-3378
doh.testimony@doh.hawaii.gov

Testimony COMMENTING on HB0673 HD1
RELATING TO MEDICAL CANNABIS.

REPRESENTATIVE CHRIS LEE, CHAIR
HOUSE COMMITTEE ON JUDICIARY

Hearing Date: Thursday, February 14, 2019 Room Number: 325

Fiscal Implications: Cannot be determined at this time.

Department Testimony: Thank you for the opportunity to COMMENT on this measure. The Department SUPPORTS some provisions with clarifications, definitions, and recommended language changes, and OPPOSES other provisions.

In summary, this measure would:

1. Allow for transfer of ownership of a dispensary license in specified circumstances;
2. Allow physician assistants practicing under supervision to certify patients as having qualifying debilitating medical conditions;
3. Allow each dispensary licensee up to two separate manufacturing or processing facilities in addition to the two production centers currently allowed;
4. Allow licensed dispensaries to open retail locations on state and federal holidays.
5. Allow dispensary-to-dispensary sales of medical cannabis and manufactured cannabis products in the event of a crop failure of cannabis plants; and

6. Add edible cannabis products and cannabidiol (CBD) products to the types of medical cannabis products that may be manufactured and distributed by licensed dispensaries.

The Department responds to each proposal as follows:

Transfer of Ownership: The Department SUPPORTS this provision with the HD1 amendment providing that the "department may deny a request for transfer of ownership if it deems the transferee has failed to meet all the requirements of section 329D-3, HRS, for ownership."

Adding Certifying Professionals: The Department SUPPORTS the addition of "physician assistants under supervision" to certify patients with debilitating medical conditions for the medical use of cannabis. Physician assistants may register under section 329-32, HRS, and are allowed prescriptive authority of controlled substances. Adding physician assistants to physicians and APRNs will improve patient access.

Additional Manufacturing and Processing Centers: The Department COMMENTS to request clarification as to the distinction between the proposed "manufacturing or processing facilities" and the currently authorized "production centers" and the need for additional facilities.

Cultivation and manufacturing are both allowed within medical cannabis "production centers." In fact, one licensee currently has one production center designated for growing operations and one production center designated for manufacturing and packaging. If the intent is to differentiate between facilities to require that cultivation and manufacturing operations be maintained separately, the Department suggests changing the term "production center" to "production location" and adding two new terms and definitions as follows:

1. "Production location" means the physical location by address or tax map key (TMK) where cultivation and/or manufacturing occur;
2. "Cultivation centers" means enclosed indoor facilities at production locations where medical cannabis is grown and harvested; and
3. "Manufacturing or processing centers" means enclosed indoor facilities at production locations where harvested cannabis is processed into manufactured medical cannabis products and packaged and stored for retail sale.

The Department also recommends that these facilities meet all County zoning and building code requirements just as current production centers are required.

The Department questions the need for additional facilities. Of the eight current licensees, only one has two production centers planned. The other seven have only one of two authorized production centers operational. In fact, two licensees inactivated their second production centers in 2018.

If this provision is approved, the total number of facilities to monitor and inspect will increase by 50%. To maintain the current level of oversight, the Department would require at least one additional inspector position for this purpose. However, this position and funding are not in the Governor's budget.

Retail Sales Days of Operation: The Department SUPPORTS this provision so long as dispensary open hours for retail sales remain between 8:00 a.m. and 8:00 p.m., Hawaii-Aleutian Standard Time, Monday through Sunday.

Dispensary to Dispensary Sales: The Department OPPOSES this provision as it conflicts with the very purposeful vertical system designed by the Legislature and increases the

risk of federal intervention. Inter-island transportation of cannabis and cannabis manufactured products is subject to federal law. Currently, certified testing laboratories transport samples inter-island for the purpose of quality assurance testing; however, the quantities transported are limited and even so, samples are, on occasion, confiscated by federal authorities. This proposal would allow transporting of much larger volumes of cannabis and/or manufactured cannabis products, thereby significantly increasing the risk of confiscation and monetary and product loss, with possible criminal trafficking of cannabis offenses on both the sending and receiving dispensaries.

Edibles and CBD Products: The Department OPPOSES allowing edible products. The Department continues to have substantial reservations over the risks of inadvertent over-intoxication and accidental poisoning in adults and especially in children. Edible products are responsible for most cannabis over-intoxications. Edible products may be indistinguishable from cannabis-free counterparts and are meant to be palatable, resulting in a risk of over-dosing as a result of consuming multiple dose-units. In addition, users may fail to appreciate the delayed effects of ingested cannabis and overconsume edibles. For example, while the initial effects of inhaled cannabis can be felt within minutes and have peak effect in 20 to 30 minutes, edibles can take as long as 2 hours to be felt, with peak effect at 2 to 4 hours after ingestion. Individual factors can also affect how soon a person will feel the effect of an edible product.

Children are the most likely to be impacted by edibles. Changes in laws which made edible products more accessible to children have resulted in increased intoxications of children. For example, following changes to cannabis possession laws, cannabis-related visits to a Colorado pediatric hospital increased from 0% to 2.4% with 57% involving medical cannabis

and 50% involving cannabis-containing food.[1] Call volume to U.S. poison centers for unintentional pediatric cannabis exposures from 2005-2011 increased by 30% per year in decriminalized states, while call rates in non-legal states did not change.[2] Ninety-one percent (91%) of edible cannabis exposure reports to the National Poison Data System from 2013-2015 came from states with medical and/or recreational cannabis and that call volume increased each year, with the most common age groups being ≤5 years and 13-19.[3]

Children are the most likely to suffer severe illness from acute cannabis intoxication. Adolescents and adults experience tachycardia, hypertension, increased respiratory rate, dry mouth, increased appetite, nystagmus, ataxia, and slurred speech. However, neurological symptoms are more prominent in children, e.g., ataxia, hyperkinesis, lethargy, and prolonged coma with depressed respiration, which may be life-threatening. Toxicity in children is usually as a result of ingesting edibles.[4]

There is no antidote for acute cannabis intoxication. Treatment is symptom-based support to control anxiety, vomiting, and to maintain respiratory and cardiovascular function.[5]

The Department SUPPORTS allowing dispensary licensees to dispense 3rd party manufactured CBD products with the HD1 requirements that:

---

[1] Wang GS, Roosevelt G, Heard K. Pediatric Marijuana Exposures in a Medical Marijuana State. JAMA Pediatr. 2013;167(7):630–633. doi:10.1001/jamapediatrics.2013.140

[2] Wang, George S. et al. Association of Unintentional Pediatric Exposures With Decriminalization of Marijuana in the United States. Annals of Emergency Medicine, Volume 63, Issue 6, 684 - 689

[3] Dazhe Cao, Sahaphume Srisuma, Alvin C. Bronstein & Christopher O. Hoyte (2016) Characterization of edible marijuana product exposures reported to United States poison centers, Clinical Toxicology, 54:9, 840-846, DOI: 10.1080/15563650.2016.1209761

[4] *Id.* at 1.

[5] Lee Stinnett, Virginia et al. Cannabinoid Hyperemesis Syndrome: An Update for Primary Care Providers. The Journal for Nurse Practitioners, Volume 14, Issue 6, 450 - 455

1. Section 329D HRS be amended to allow licensees to dispense CBD products that are not manufactured by the licensee;
2. Licensees clearly label 3rd party products to indicate that they are not manufactured by the licensee;
3. Licensees ensure that products meet all laboratory standards required for licensee-manufactured products; and
4. Licensees ensure that products meet all other requirements of Section 329D HRS on potency limitation, packaging, and other requirements.

Offered Amendments: As described above.

Thank you for the opportunity to testify on this measure.

DAVID Y. IGE
GOVERNOR

NOLAN P. ESPINDA
DIRECTOR

Maria C. Cook
Deputy Director
Administration

Jodie F. Maesaka-Hirata
Deputy Director
Corrections

Renee R. Sonobe Hong
Deputy Director
Law Enforcement

STATE OF HAWAII
DEPARTMENT OF PUBLIC SAFETY
919 Ala Moana Boulevard, 4th Floor
Honolulu, Hawaii 96814

No. _____

TESTIMONY ON HOUSE BILL 673, HOUSE DRAFT 1
RELATING TO MEDICAL CANNABIS.
by
Nolan P. Espinda, Director

House Committee on Judiciary
Representative Chris Lee, Chair
Representative Joy A. San Buenaventura, Vice Chair

Thursday, February 14, 2019; 2:05 p.m.
State Capitol, Conference Room 325

Chair Lee, Vice Chair San Buenaventura, and Members of the Committee:

The Department of Public Safety (PSD) offers comments on House Bill (HB) 673, House Draft (HD) 1, which proposes to, among other things, allow physician assistants to provide written (medical cannabis) certifications for qualifying patients.

Under section 16-85-49.1, Hawaii Administrative Rules (HARs), physician assistants are authorized to prescribe, dispense, and administer medications and medical devices to the extent delegated by the supervising physician. Based upon this rule, PSD presently requires that when a physician assistant (PA) applies for a controlled substances registration under section 329-32, Hawaii Revised Statutes (HRS), the PA's supervising physician must inform PSD of the extent of the authorization that he/she has granted to his/her physician assistant related to prescribing, administering or dispensing controlled substances.

This measure defines "Physician" on page 4, lines 12-16 as follows:

> "Physician" means a person who is licensed to practice under chapter 453 and is licensed with authority to prescribe drugs and is registered under section 329-32. "Physician" [~~does not~~] shall include a physician assistant as described in section 453-5.3."

To be consistent with section 16-85-49.1, HAR, and PSD's current procedure for issuance of a controlled substances registration, PSD respectfully requests that the proposed definition of a "physician" in HB 673, HD 1, be amended as follows:

> "Physician" means a person who is licensed to practice under chapter 453 and is licensed with authority to prescribe drugs and is registered under section 329-32. "Physician" [~~does not~~] shall include a physician assistant as described in section 453-5.3, to the extent that the physician assistant is authorized to issue written certifications by his or her supervision physician."

Thank you for the opportunity to testify on this measure.

DAVID Y. IGE
GOVERNOR

TESTIMONY BY:
JADE T. BUTAY
DIRECTOR

Deputy Directors
LYNN A.S. ARAKI-REGAN
DEREK J. CHOW
ROSS M. HIGASHI
EDWIN H. SNIFFEN

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
869 PUNCHBOWL STREET
HONOLULU, HAWAII 96813-5097

LATE

February 14, 2019
2:05 p.m.
State Capitol, Room 329

H.B. 673 H.D.1
RELATING TO MEDICAL CANNABIS

House Committee on Judiciary

The Hawaii Department of Transportation (HDOT) **opposes** H.B. 673 H.D. 1, relating to medical cannabis.

Among other provisions, this bill allows licensed retail dispensaries to sell edible cannabis and cannabidiol products. Edible marijuana is very different from "joints" and other marijuana products, and the effects of THC when consumed in edibles compared to smoking sometimes takes several hours. People are more likely to eat more than the recommended serving since they don't immediately feel the effects. These same people may get into a car and start driving.

According to a November 2015 report from the Canadian Centre on Substance Abuse entitled "Cannabis Regulation: Lessons Learned In Colorado and Washington State," stakeholders in Colorado and Washington recommended that any jurisdiction considering policy change, including commercialization and legalization of marijuana, should:

- "Promote collaboration to bring diverse partners to the table from the beginning and to promote open, consistent communication and collaborative problem-solving;"
- "Develop a clear, comprehensive communication strategy to convey details of the regulations prior to implementation, so that the public and other stakeholders understand what is permitted, as well as the risks and harms associated with use, so that individuals can make informed choices;" as well as
- "Ensure consistent enforcement of regulations by investing in training and tools for those responsible for enforcement, particularly to prevent and address impaired driving …."

Stakeholders in both states agreed that "moving gradually and decreasing the restrictiveness of regulations is easier than increasing them, so they recommended beginning with a more restrictive framework and easing restrictions as evidence

indicates. Colorado's experience with edible cannabis products illustrates the importance of this theme." It is vital that the public is properly educated on the effects and dangers of consuming marijuana and driving while impaired.

In Hawaii, a local study on motor vehicle crash fatalities and undercompensated care associated with legalization on medical marijuana finds that "THC positivity among driver fatalities increased since legalization, with a threefold increase from 1993-2000 to 2001-2015. THC positivity among all injured patients tested at our highest level trauma center increased from 11% before to 20% after legalization. From 2011 to 2015, THC, positive patients were significantly less likely to wear a seatbelt or helmet (33% vs 56%)." The study was published in the Journal of Trauma and Acute Care Surgery in May 2018.

Additionally, 22 percent of fatal crashes that occurred in Hawaii during calendar years 2013 through 2017 involved drivers, bicyclists and pedestrians who tested positive for having marijuana in their systems. HDOT believes that legalizing edible cannabis will result in an increase in traffic crashes that may lead to serious injuries and deaths on our roads.

HDOT is primarily concerned about improving highway safety and protecting the lives of our community members and visitors. HDOT coordinates specialized training and certifies law enforcement officers to recognize impairment in drivers under the influence of drugs through its Drug Recognition Expert (DRE) program to combat this issue.

Thank you for the opportunity to provide testimony.

The Hawaii Department of Transportation presents the following data on what impact the legalization of marijuana has had on traffic safety in other states:

- According to an October 2018 report from the Insurance Institute for Highway Safety (IIHS), an examination of police-reported crashes of all severities showed that "the legalization of retail sales in Colorado, Washington and Oregon was associated with a 5.2% higher rate of police-reported crashes compared with neighboring states that did not legalize retail sales."[1]

- "Since recreational marijuana was legalized, marijuana related traffic deaths increased 151 percent while all Colorado traffic deaths increased 35 percent."[2]

- "Traffic deaths involving drivers who tested positive for marijuana more than doubled from 55 in 2013 to 138 people killed in 2017. This equates to one person killed every 2 ½ days compared to one person killed every 6 ½ days."[3]

- According to AAA, drugged driving fatalities in Washington State doubled in the years following legalization of recreational marijuana.[4]

- In 2015, 50 percent of all drivers assessed by Drug Recognition Experts in Oregon tested positive for tetrahydrocannabinol.[5]

In addition, a local study on motor vehicle crash fatalities and undercompensated care associated with legalization of medical marijuana finds that "THC positivity among driver fatalities increased since legalization, with a threefold increase from 1993-2000 to 2001-2015. THC positivity among all injured patients tested at our highest level trauma center increased from 11% before to 20% after legalization. From 2011 to 2015, THC-positive patients were significantly less likely to wear a seatbelt or helmet (33% vs 56%). They were twice as likely to have Medicaid insurance (28% vs 14%)."[6] As noted in the

---

[1] IIHS, *Effect of recreational marijuana sales on police-reported crashes in Colorado, Oregon, and Washington,* (Arlington, VA, Insurance Institute for Highway Safety, 2018).

[2] Rocky Mountain High Intensity Drug Trafficking Area, *The Legalization of Marijuana in Colorado: The Impact Volume 5,* (Colorado, 2018).

[3] Ibid.

[4] T. Johnson, *Fatal road crashes involving marijuana double after state legalizes drug,* (2016).

[5] Oregon Liquor Control Commission, *Licenses across Oregon fail to stop sales to minors* [News Release], (2018).

[6] Susan Steinemann, Daniel Galanis, Tiffany Nguyen and Walter Biffl, "Motor vehicle crash fatalities and undercompensated care associated with legalization of marijuana," *Journal of Trauma and Acute Care Surgery* 85, Number 3 (Honolulu, HI, May 2018): 566-571.

study, "the data is insufficient to demonstrate causality between cannabis use and crashes, nor does it prove that cannabis is an independent risk factor for injury or death. Nevertheless, the associations presented may raise awareness, and underscore the need for further research, particularly regarding relative risk of injury and indicators of impairment due to cannabis alone or in combination with alcohol."[7]

[7] Ibid.

Motor vehicle crash fatalaties and undercompensated care associated with legalization of marijuana

Susan Steinemann, MD, Daniel Galanis, PhD, Tiffany Nguyen, *and* **Walter Biffl, MD**, *Honolulu, Hawaii*

BACKGROUND:	Half of the US states have legalized medical cannabis (marijuana), some allow recreational use. The economic and public health effects of these policies are still being evaluated. We hypothesized that cannabis legalization was associated with an increase in the proportion of motor vehicle crash fatalities involving cannabis-positive drivers, and that cannabis use is associated with high-risk behavior and poor insurance status.
METHODS:	Hawaii legalized cannabis in 2000. Fatality Analysis Reporting System data were analyzed before (1993–2000) and after (2001–2015) legalization. The presence of cannabis (THC), methamphetamine, and alcohol in fatally injured drivers was compared. Data from the state's highest level trauma center were reviewed for THC status from 1997 to 2013. State Trauma Registry data from 2011 to 2015 were reviewed to evaluate association between cannabis, helmet/seatbelt use, and payor mix.
RESULTS:	THC positivity among driver fatalities increased since legalization, with a threefold increase from 1993–2000 to 2001–2015. Methamphetamine, which has remained illegal, and alcohol positivity were not significantly different before versus after 2000. THC-positive fatalities were younger, and more likely, single-vehicle accidents, nighttime crashes, and speeding. They were less likely to have used a seatbelt or helmet. THC positivity among all injured patients tested at our highest level trauma center increased from 11% before to 20% after legalization. From 2011 to 2015, THC-positive patients were significantly less likely to wear a seatbelt or helmet (33% vs 56%). They were twice as likely to have Medicaid insurance (28% vs 14%).
CONCLUSION:	Since the legalization of cannabis, THC positivity among MVC fatalities has tripled statewide, and THC positivity among patients presenting to the highest level trauma center has doubled. THC-positive patients are less likely to use protective devices and more likely to rely on publically funded medical insurance. These findings have implications nationally and underscore the need for further research and policy development to address the public health effects and the costs of cannabis-related trauma. (*J Trauma Acute Care Surg.* 2018;85: 566–571. Copyright © 2018 Wolters Kluwer Health, Inc. All rights reserved.)
LEVEL OF EVIDENCE:	Prognostic, level III.
KEY WORDS:	Marijuana; medical marijuana; cannabis; motor vehicle crash; Fatality Analysis Reporting System.

Over half of US states have legalized medical cannabis (marijuana), and a growing number (nine in 2018) have legalized it for recreational use.[1] However, the public health effects and economic impact of these policies are still being evaluated. A 2017 report from the National Academy of Sciences, Engineering and Medicine endorsed the therapeutic effects of cannabis and corroborated an earlier report stating there was insufficient evidence that cannabis use increased all-cause mortality.[1,2] However, a number of studies have suggested a correlation between cannabis use and a leading cause of death: motor vehicle crashes (MVC).

A recent meta-analysis concluded that driving under the influence of cannabis (DUIC) is associated with 20% to 30% higher odds of a motor vehicle crash.[3] The odds ratio was estimated to be even higher (>2) for fatal collisions, especially within 2 hours of using cannabis.[4,5] Colorado witnessed a 48% increase in cannabis-related traffic fatalities coincident with the commercialization of marijuana.[6] Despite this, overall traffic fatalities in states with legal cannabis are lower than those without, and the adoption of medical cannabis laws were temporally associated with immediate reductions in traffic fatalities in those aged 15 to 44 years.[7]

Proponents of legalized cannabis postulate a positive economic impact from savings to the criminal justice system due to elimination of the black market, reduced criminal prosecution, and conservation of law enforcement resources.[8] Selling cannabis can be lucrative: Colorado added US $115 million to its coffers from marijuana taxes in 2015.[6] It is unclear whether savings and revenue generation exceed the costs of regulation and public health expenses.

Following the leads of California, Alaska, Oregon, Washington, and Maine, Hawaii legalized the medical use of cannabis in 2000, becoming the first state to do so, through legislation.[9] The wider impact of this legislation on health care, particularly the trauma system, has not been completely evaluated. We hypothesized that cannabis legalization in the state has been associated with an increase in the proportion of motor vehicle crash fatalities involving cannabis-positive drivers. We further postulate that cannabis use is associated with high-risk behavior and poor insurance status.

Submitted: August 23, 2017, Revised: March 22, 2018, Accepted: May 8, 2018, Published online: May 21, 2018.

From the Department of Surgery (S.S.), University of Hawaii John A. Burns School of Medicine, The Queen's Medical Center; Injury Prevention and Control Program (D.G.), Hawaii Department of Health; Burns School of Medicine (T.N.), University of Hawaii John A., Honolulu, Hawaii; and Scripps Memorial Hospital La Jolla (W.B.), La Jolla, California.

Address for reprints: Susan Steinemann, MD, Department of Surgery, University of Hawaii John A. Burns School of Medicine The Queen's Medical Center 1356 Lusitana St, 6th Floor, Honolulu, HI 96813; email: steine@hawaii.

DOI: 10.1097/TA.0000000000001983

METHODS

Fatalities

Fatality Analysis Reporting System (FARS) data for Hawaii were analyzed for periods before (1993–2000) and after (2001–2015) legalization. The presence of cannabinoids (THC), methamphetamine, and alcohol in fatally injured motor vehicle drivers (including motorcyclists) were compared. These characterizations were made using the DRUG_RES and ALC_RES fields, respectively. THC was indicated by DRUG_RES values of 600 through 695, and methamphetamine by code 417. Any ALC_RES level greather than 0 was considered alcohol positive. Testing of fatalities for alcohol was performed on blood samples at the medical examiners' office by gas chromatography. Urine toxicology results from the referring trauma centers were used to detect other substances (method below). If urine toxicology results from the referring center were not available, fatalities were screened at the medical examiners' office by Syva Rapid Test 10 (Siemens Healthcare, Norwood, MA) with threshold of detection for 11-nor-delta9-tetrahydrocannabinol-9-carboxylic acid (THC-OOH) of 0.1mg/ml. Fatalities with toxicology screens positive for illegal substances (excluding THC alone) had confirmatory testing with blood samples (NMS Labs, Willow Grove, PA) with threshold detection for THC of 0.5 ng/mL. The proportion of drug- and alcohol-positive drivers was determined in two ways, with and without the inclusion of untested drivers in the denominator.

A subset of Hawaii FARS data for recent years (2011–2015) were used to examine the association between cannabis positivity, methamphetamine and alcohol use, and crash demographics.

State Registry

Through 2010, there was one designated trauma center in the state, which has remained the highest level center. An additional three Level III centers were designated in 2011, and two in 2012. State Trauma Registry data were reviewed for THC status of trauma patients presenting to the highest level center from 1997 to 2013. Statewide data from 2011 to 2015 were used to evaluate association between cannabis use and risky behaviors (use of seatbelt restraint or helmet), as well as payor mix. At the state's trauma centers, presence of THC-COOH was determined by Enzyme Multiplied Immunoassay Test on urine, with a threshold of 50 ng/mL.

All statistical analyses were conducted with JMP software, version 5. Differences between groups were assessed using *t*-tests for continuous variables and χ^2 tests for categorical variables. The level of statistical significance was P less than 0.05.

RESULTS

FARS Data

A total of 1,578 motor vehicle drivers were killed in traffic crashes in Hawaii over the 23-year study period, with a generally decreasing trend in the annual number since 2006 (Table 1). Sixty-five percent of the decedents were drivers of automobiles, with drivers of motorcycles and mopeds comprising the remaining 35%. The proportion of the latter increased significantly over time, reaching 50% in the 2011 to 2015 period.

TABLE 1. Demographic and Toxicologic Descriptions of Drivers Killed in Traffic Crashes in Hawaii, 1993 to 2015 (n = 361 for 2001–2005, n = 374 for 2006–2010, n = 283 for 2011–2015; Total N = 1578)

	1993–2000	2001–2015	*P*
No. drivers	560	1018	
Vehicle type			
Car/truck	71% (400)	62% (627)	
Motorcycle/moped	29% (160)	38% (391)	<0.001
Age (mean ± SD)	37 ± 17	39 ± 17	0.030
Male sex	80% (448)	84% (855)	0.047
Positive for cannabis (THC), total*	6% (31)	15% (151)	<0.001
Positive for THC, tested**	6% (31)	16% (151)	<0.001
Positive for methamphetamine, total*	5% (27)	7% (74)	0.12
Positive for methamphetamine, tested**	5% (27)	8% (74)	0.047
Positive for alcohol, total*	47% (263)	46% (470)	0.84
Positive for alcohol, tested†	49% (263)	50% (470)	0.69

* Includes all fatally injured drivers.
**106 drivers were not tested for THC and methamphetamine.
†74 drivers were not tested for alcohol.

THC positivity among fatally injured drivers increased nearly threefold, from 5.5% in the 1993 to 2000 period to 16.3% in the 2011 to 2015 period (Fig. 1). This difference persists whether or not untested drivers are included. In contrast, the presence of methamphetamine, which has remained illegal, was not statistically different between the 1993 to 2000 (4.8%) and 2001 to 2015 (7.3%) periods when all drivers are included. There was a slight, significant increase in methamphetamine positivity rates when untested drivers are excluded. Alcohol positivity rates demonstrated no statistically significant change (Table 1).

THC-positive drivers were significantly younger than THC-negative drivers in recent years (Table 2). Although methamphetamine use was comparable between the two groups, alcohol use was 63% higher among the THC-positive drivers. THC-positive drivers were also more likely to have died in a night time crash and to have been speeding. The use of protective devices (seat belts for automobile occupants and helmets for motorcycle and moped drivers) was significantly lower among THC-positive drivers compared with those who tested negative.

State Registry Data

The rate of THC positivity among all injured patients tested at our highest-level trauma center increased from 11% before to 20% after legalization (Fig. 2). From 2011 to 2015, THC-positive patients were significantly less likely to have been wearing a seatbelt or helmet (33% vs 56%, Table 3). They were also twice as likely to have Medicaid insurance (28% vs 14%).

DISCUSSION

Over 8% of the US population older than 12 years are regular users of cannabis. Young adults (ages, 18–25 years) comprise approximately 20% of users,[10] correlating with the significantly lower mean age of THC-positive driver fatalities. The trend toward legalization and commercialization of cannabis has been

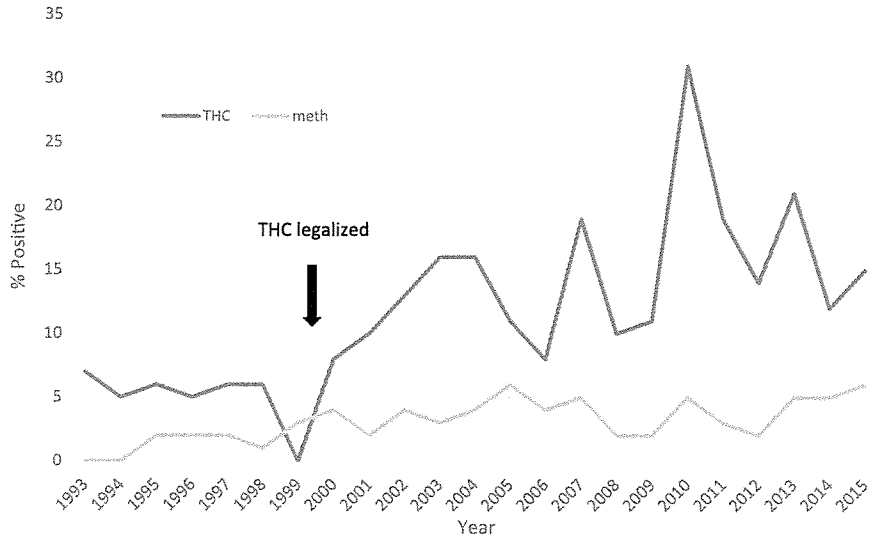

Figure 1. Annual percentage of fatally injured drivers testing positive for cannabis (THC) or methamphetamine (Meth) in Hawaii, 1993 to 2015.

fueled by reports of its medicinal use and a perception of its safety, due to inability to produce a fatal overdose.[11,12] Users are willing to drive under the effect of cannabis due to the perception that it is a "soft" illicit drug.[5]

The neurocognitive effects of cannabis are still being elucidated. There is evidence suggesting that long-term regular cannabis users have impaired retention, learning, and retrieval of information.[13] Experimental studies evaluating dose-response impairment of driving with cannabis have suffered from inconsistencies due to study design, cannabis dose, the sophistication of the equipment, and the specificity of the task. More recent simulator-based research has shown an increase in reaction time, lane position variability (weaving), and inability to maintain a constant headway while following another car.[14] Furthermore, cannabis users were observed to have increased risk taking behavior.[15] Conversely, an analysis of 414 MVC patients by Lowenstein and Koziol-McLain[16] did not demonstrate a causal relationship between DUIC and crash responsibility. However, they noted that users of nonalcohol drugs (including cannabis) were more likely to be unhelmeted or unrestrained. Legislation regarding DUIC is complex, prosecution remains relatively rare, and recidivism is high.[14,17]

Overall, MVC fatalities in Hawaii are 26% lower when compared with the rest of the United States, with reductions in motor vehicle occupants offset by higher mortality in motorcyclists.[18] Santaella-Tenorio et al[7] analyzed FARS data from 1985 to 2014, comparing the rate of age-adjusted traffic fatalities in Hawaii with the national trend of declining fatalities. When adjusting for miles driven per licensed driver and other covariates including population demographics, traffic laws,

TABLE 2. Description of Drivers Killed in Traffic Crashes in Hawaii, by Status of Cannabinoid (THC) Testing, 2011–2015 (n = 283)

	THC Positive (+)	THC Negative (−)	Not Tested/Unknown	*P* value THC (+)vs. (−)
No. drivers	46	215	22	
Vehicle type				
Car/truck	54% (25)	50% (108)	36% (8)	
Motorcycle/moped	46% (21)	50% (107)	64% (14)	0.61
Age (mean ± SD)	32 ± 13	42 ± 18	45 ± 23	<0.001
Male gender	83% (38)	87% (187)	82% (18)	0.45
Positive for meth, total	7% (3)	8% (17)	0	0.74
Positive for meth, tested	7% (3)	8% (17)	0	0.74
Positive for alcohol, total	67% (31)	41% (89)	27% (6)	0.004
Positive for alcohol, tested	67% (31)	42% (89)	86% (6)	0.002
Weekend crash (Saturday-Sunday)	41% (19)	40% (86)	41% (9)	0.87
Nighttime crash (6:31 PM to 6:29 AM)	72% (33)	49% (105)	36% (8)	0.005
Single-vehicle crash	67% (31)	50% (101)	41% (9)	0.011
Speeding	74% (34)	51% (110)	45% (10)	0.004
Safety devices (seat belts, helmets)				
used	24% (11)	39% (83)	41% (9)	
not used	70% (32)	51% (110)	50% (11)	0.035

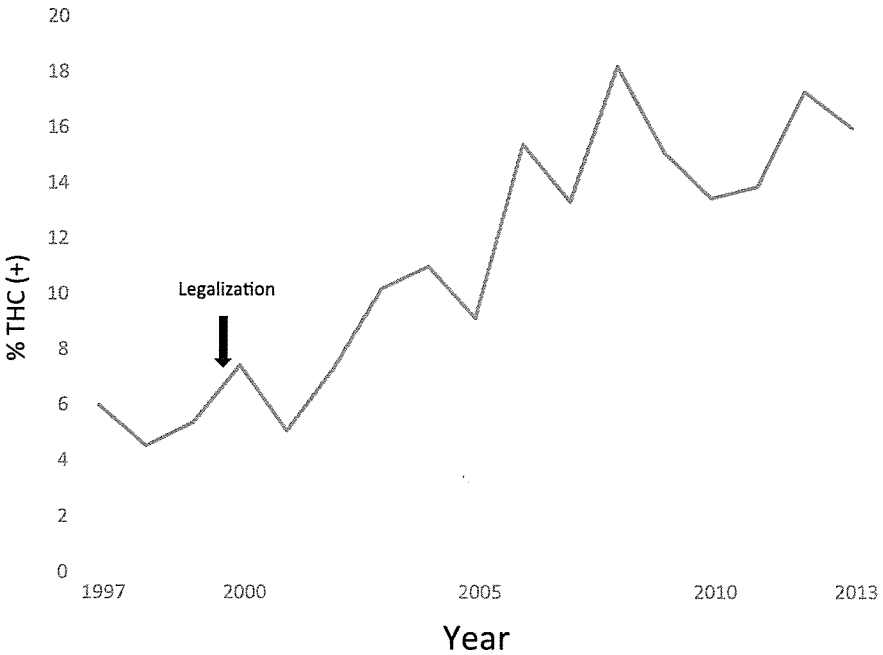

Figure 2. Incidence of cannabis (THC) positivity in trauma patients evaluated at the state's highest level trauma center.

driving safety laws, and law enforcement and safety expenditures, they found legalization of marijuana to be associated with an overall increase in fatality rates (0.04 deaths/100,000). However, this increase did not reach statistical significance, and the trend appeared to reverse by 2014. Thus, despite a threefold increase in THC positivity among driver fatalities, it is difficult to draw a definite conclusion regarding the impact of marijuana legalization on overall traffic fatality rate.

The rate of THC positivity in fatally injured drivers in Hawaii has continued to trend upward in recent years, in contrast to most other states with legalized cannabis.[19] Additionally, Hawaii's alcohol-positive fatality rate has remained relatively stable with the introduction of legal cannabis. This is in contrast to other legal cannabis states[19] and contradicts the hypothesis that users will substitute cannabis for alcohol.[20] Our data confirm that over two thirds of fatally injured, THC-positive drivers also consumed alcohol. Alcohol exacerbates the neurocognitive effects of cannabis, particularly regarding impaired driving.[5,14] This may contribute to the increasing rate of THC-associated fatalities in Hawaii.

The percentage of adults in Hawaii who report marijuana use within the past 30 days is less than half of the frequency of

TABLE 3. State Trauma Registry Data on Motor Vehicle Crashes From 2011 Through 2015 Comparing THC-Positive Versus THC-Negative Drivers (n = 2,512)

	THC Positive (+)	THC Negative (−)	Not Tested/Unknown	*P* THC (+) vs. (−)
No. drivers	322	1,050	1,140	
Vehicle type				
Car/truck	40% (130)	52% (550)	54% (620)	
Motorcycle/moped	60% (192)	48% (500)	46% (520)	<0.001
Age (mean ± SD)	35 ± 14	41 ± 17	40 ± 18	<0.001
Male sex	87% (279)	76% (796)	70% (802)	<0.001
Positive for alcohol, total	39% (125)	24% (264)	13% (149)	<0.001
Positive for alcohol, tested	39% (125)	25% (264)	36% (149)	<0.001
Safety devices (seat belts, helmets)				
Used	33% (106)	56% (590)	63% (716)	
Not used	61% (197)	40% (419)	34% (390)	<0.001
Payer				
No fault auto/commercial/private	60% (192)	63% (658)	68% (771)	0.33
Medicaid	28% (90)	14% (146)	9% (105)	<0.001
Medicare/Department of Defense/other government	5% (15)	16% (171)	15% (173)	<0.001
Self pay	7% (23)	5% (56)	6% (71)	0.22
Worker's compensation/other	1% (2)	2% (19)	2% (20)	0.19

THC positivity in driver fatalities and in patients presenting to the highest level trauma center.[21] This loosely suggests that cannabis may be associated with increased odds of traumatic injury, though substantially confounded by use of self-reported data for cannabis use. We cannot conclude that cannabis use is an independent risk factor for injury or death from our data alone.

THC undergoes complex order metabolism dependent on the route, amount and time of ingestion, and redistribution from fat stores. Chronic, heavy users may have THC detected in the urine for weeks following last marijuana use.[22] Unlike alcohol, THC levels cannot be extrapolated back to determine the THC level at the time of a crash. The threshold for a "positive" THC screening test at Hawaii trauma centers is equal to the cutoff level for federal workplaces (50 ng/mL) and is specific for primary use, rather than second-hand smoke exposure.[23] However, a serum THC level as low as 5 ng/mL is correlated with cognitive impairment and is the threshold for DUIC in Washington and Colorado.[13,24] Thus, our series likely contains a number of false-negative THC results in drivers who were cognitively impaired, due to the high screening threshold, and the absence of confirmatory analysis in fatalities who screened positive only for THC. Our data were also unable to differentiate between acute cannabis intoxication and chronic heavy use, although both groups may demonstrate cognitive impairment.[13] Some authorities suggest that combined observations on psychophysical and eye exams by a Drug Recognition Expert be used in addition to toxicology testing.[25]

In corroboration of Lowenstein and Koziol-McLain's[16] study, our data shows that THC-positive drivers are younger, more often involved in single-vehicle crashes, and less likely to use protective devices, such as seatbelts and helmets. This may be an additional cause of cannabis-associated mortality, particularly in states like Hawaii which lack helmet laws.[26] There is a public financial burden of caring for unhelmeted riders, who are significantly more likely to be hospitalized, incur charges greater than US $25,000, and be uninsured or underinsured.[27]

The health care financial burden is reiterated as current data demonstrate that cannabis users in motor vehicle crashes are twice as likely to have Medicaid insurance. Persistent use of cannabis is associated with unemployment and lower prestige (lower paying) occupations.[28,29] Uncompensated emergency department costs, perhaps millions of dollars per hospital annually, due to the medical complications of cannabis have been recognized.[6] While these medical emergency department losses may be tolerable, the costs of cannabis-related trauma—particularly MVC and DUIC—may be a "first-order concern."[8] Despite state Medicaid expenses of US $500 to 800 million per year, only an estimated 70% to 83% of inpatient hospital costs were covered.[30,31] The low Medicaid reimbursement rates for trauma were corroborated by contemporary reports from other states.[32,33]

In conclusion, since legalization of medical marijuana in Hawaii, THC positivity among driver fatalities has nearly tripled statewide, and THC positivity among patients presenting to the highest level trauma center has doubled. This study demonstrates a dramatic and sustained increase in THC positivity in motor vehicle crash injuries and fatalities in the state of Hawaii, coincident with the legalization of marijuana. High risk behavior may contribute, as single-vehicle crashes, speeding, and lack of seatbelt and helmet use were significantly higher in THC-positive fatalities. Cannabis users were younger, and almost twice as likely to rely on public funding for the costs of their trauma care. Our data are insufficient to demonstrate causality between cannabis use and crashes, nor does it prove that cannabis is an independent risk factor for injury or death. Nevertheless, the associations presented may raise awareness, and underscore the need for further research, particularly regarding relative risk of injury, and indicators of impairment due to cannabis alone or in combination with alcohol. These data, moreover, suggest there is a broad need for further investigation and policy development to address the public health effects and the costs of cannabis-related trauma.

AUTHORSHIP

S.S. contributed to study design, analysis and interpretation of data, drafting of the article. D.G. and W.B. contributed to study design, analysis and interpretation of data, drafting and critical revision of the article. T.N. contributed to analysis and interpretation of data, drafting and critical revision of the article.

The views expressed are those of the authors and do not necessarily represent the official policy or views of the Queen's Medical Center or Hawaii Department of Health.

There was no funding received for this work, and the authors disclose no conflict of interests relevant to this research.

This research was presented as a Quick Shot presentation at the 76th Annual Meeting of AAST and Clinical Congress for Acute Care Surgery, September 13–16, 2017 in Baltimore, Maryland.

DISCLOSURE

The authors declare no conflicts of interest.

REFERENCES

1. National Acadamies of Sciences, Engineering and Medicine. *The health effects of cannabis and cannabinoids: The current state of evidence and recommendations for research*. Washington, DC: The National Academies Press. https://www.nap.edu/catalog/24625/the-health-effects-of-cannabis-and-cannabinoids-the-current-state. Published 2017. Accessed August 21, 2017.
2. Institute of Medicine. *Marijuana and medicine: Assessing the science base*. Washington, DC: The National Academies Press. https://www.nap.edu/catalog/6376/marijuana-and-medicine-assessing-the-science-base. Published 1999. Accessed August 21, 2017.
3. Rogeberg O, Elvik R. The effects of cannabis intoxication on motor vehicle collision revisited and revised. *Addiction*. 2016;111(8):1348–1359.
4. Asbridge M, Hayden JA, Cartwright JL. Acute cannabis consumption and motor vehicle collision risk: systematic review of observational studies and meta-analysis. *BMJ*. 2012;344:e536.
5. Downey LA, King R, Papafotiou K, Swann P, Ogden E, Boorman M, Stough C. The effects of cannabis and alcohol on simulated driving: influences of dose and experience. *Accid Anal Prev*. 2013;50:879–886.
6. Rocky Mountain High Intensity Drug Trafficking Area. The legalization of marijuana in Colorado: The impact. http://www.rmhidta.org/html/FINAL%202017%20Legalization%20of%20Marijuana%20in%20Colorado%20The%20Impact.pdf Published October 2017. Accessed January, 2018.
7. Santaella-Tenorio J, Mauro CM, Wall MM, Kim JH, Cerdá M, Keyes KM, Hasin DS, Galea S, Martins SS. U.S. traffic fatalities, 1985–2014, and their relationship to medical marijuana laws. *Am J Public Health*. 2017;107(2):336–342.
8. RAND Drug Policy Research Center. Altered state?: assessing how marijuana legalization in California could influence marijuana consumption and public budgets. https://www.rand.org/content/dam/rand/pubs/occasional_papers/2010/RAND_OP315.pdf. Published 2010. Accessed August 1, 2017.
9. A bill for an act relating to the medical use of marijuana, Act 228, The Senate Twentieth Legislature, State of Hawaii, 1999.

10. Center for Behavioral Health Statistics and Quality Key substance abuse and mental health indicators in the United States: Results from the 2015 National Survey on Drug Use and Health. http://www.samhsa.gov/data. Published September 2016. Accessed August 1, 2017.
11. Galston WA, Dionne E Jr. The new politics of marijuana legalization: why opinion is changing. *Governance Studies at Brookings*. 2013:1–17.
12. Hall W. What has research over the past two decades revealed about the adverse health effects of recreational cannabis use? *Addiction*. 2015;110(1): 19–35.
13. Busardò FP, Pellegrini M, Klein J, di Luca NM. Neurocognitive correlates in driving under the influence of cannabis. *CNS Neurol Disord Drug Targets*. 2017;16(5):1–7.
14. Hartman RL, Huestis MA. Cannabis effects on driving skills. *Clin Chem*. 2013;59(3):478–492.
15. Bondallaz P, Favrat B, Chtioui H, Fornari E, Maeder P, Giroud C. Cannabis and its effects on driving skills. *Forensic Sci Int*. 2016;268:92–102.
16. Lowenstein SR, Koziol-McLain J. Drugs and traffic crash responsibility: a study of injured motorists in Colorado. *J Trauma*. 2001;50(2):313–320.
17. Turnbull D, Hodge JG Jr. Driving Under the Influence of Marijuana Laws and the Public's Health: Public Health and the Law. *J Law Med Ethics*. 2017;45(2):280–283.
18. Hawaii State Department of Health, Emergency Medical Services Injury Prevention System Branch. Injuries in Hawaii 2007–2011. http://health.hawaii.gov/injuryprevention/files/2013/10/Databook-FINAL-Sept-2012.pdf. Published September 2012. Accessed July 31, 2017.
19. Masten SV, Guenzburger GV. Changes in driver cannabinoid prevalence in 12 US states after implementing medical marijuana laws. *J Safety Res*. 2014;50:35–52.
20. Lucas P, Reiman A, Earleywine M, McGowan SK, Oleson M, Coward MP, Thomas B. Cannabis as a substitute for alcohol and other drugs: a dispensary-based survey of substitution effect in Canadian medical cannabis patients. *Addiction Res Theory*. 2013;21(5):435–442.
21. Hawaii State Epidemiological Outcomes Workgroup. State Epidemiological Profile: Select Youth and Adult Drug Indicators. https://health.hawaii.gov/substance-abuse/files/2013/05/2014State_Drug_Profile_Youth_Adults.pdf. Published 2014. Accessed November 23, 2017.
22. Odell MS, Frei MY, Gerostamoulos D, Chu M, Lubman DI. Residual cannabis levels in blood, urine and oral fluid following heavy cannabis use. *Forensic Sci Int*. 2015;249:173–180.
23. Moeller KE, Lee KC, Kissack JC. Urine drug screening: practical guide for clinicians. *Mayo Clin Proc*. 2008;83(1):66–76.
24. Grotenhermen F, Leson G, Berghaus G, Drummer OH, Krüger HP, Longo M, Moskowitz H, Perrine B, Ramaekers JG, Smiley A. Developing limits for driving under cannabis. *Addiction*. 2007;102(12):1910–1917.
25. Hartman RL, Richman JE, Hayes CE, Huestis MA. Drug Recognition Expert (DRE) examination characteristics of cannabis impairment. *Accid Anal Prev*. 2016;92:219–229.
26. Galanis DJ, Ly CL, Wong LL, Steinemann S, Rosen L. Helmet use among motorcycle and moped riders injured in Hawaii: final medical dispositions from a linked database. *J Trauma Acute Care Surg*. 2014;77(5):743–748.
27. Galanis DJ, Castel NA, Wong LL, Steinemann S. Impact of helmet use on injury and financial burden of motorcycle and moped crashes in hawai 'i: analysis of a linked statewide database. *Hawaii J Med Public Health*. 2016;75(12):379.
28. Braun BL, Hannan P, Wolfson M, Jones-Webb R, Sidney S. Occupational attainment, smoking, alcohol intake, and marijuana use: ethnic-gender differences in the CARDIA study. *Addict Behav*. 2000;25(3):399–414.
29. Zhang C, Brook JS, Leukefeld CG, Brook DW. Trajectories of marijuana use from adolescence to adulthood as predictors of unemployment status in the early forties. *Am J Addict*. 2016;25(3):203–209.
30. Hawaii State Auditor. Audit of the Department of Human Services' MedQUEST Division and Its Medicaid Program. http://files.hawaii.gov/auditor/Reports/2014/14-02.pdf. Published 2014. Accessed March 17, 2018.
31. Healthcare Association of Hawaii. Reimbursement. http://hah.org/priorities/reimbursement/. Published 2014. Accessed March 17, 2018.
32. Joseph B, Haider AA, Azim A, Kulvatunyou N, Tang A, O'Keeffe T, Latifi R, Green DJ, Friese RS, Rhee P. The impact of patient protection and Affordable Care Act on trauma care: a step in the right direction. *J Trauma Acute Care Surg*. 2016;81(3):427–434.
33. Shafi S, Ogola G, Fleming N, Rayan N, Kudyakov R, Barnes SA, Ballard DJ. Insuring the uninsured: potential impact of Health Care Reform Act of 2010 on trauma centers. *J Trauma Acute Care Surg*. 2012;73(5):1303–1307.

GHSA
Governors Highway Safety Association
The States' Voice on Highway Safety

Traffic safety impacts of marijuana legalization

In 2012, Colorado and Washington became the first states to legalize recreational marijuana. This note summarizes the effects observed in these states on marijuana use overall, use by drivers on the road and involved in arrests and crashes, crash rates, and the public's views regarding marijuana. Details on each topic may be found in the references. In this note, marijuana refers to any form of cannabis while THC refers to its active component delta 9-tetrahydrocannabinol.

While THC presence increased in Colorado and Washington drivers, there are no firm conclusions whether crash rates changed.

SUMMARY

After Colorado and Washington legalized recreational marijuana:

- Marijuana use increased according to data from Colorado and Washington.
- THC presence increased in drivers on the road and in arrested and crash-involved drivers according to data from Washington. THC-positive drivers may not necessarily be impaired.
- There are no firm conclusions on whether crash rates changed in either state.
- Fatal crashes involving marijuana increased in both Colorado and Washington.
- Surveys in Colorado and Washington show that many regular marijuana users believe that marijuana doesn't affect their driving. Most regular users will drive "high" frequently.

IMPACT

Use overall: Marijuana use increased in both Colorado and Washington.

- In Colorado, marijuana use in the past month by youth age 12-17 increased 12% from the three years (2010-2012) before Colorado legalized recreational marijuana to the three years after legalization (2013-2015). Use by young adults age 18-25 increased 16% and use by adults age 26 and above increased 71% (RMHIDTA, 2017).
- In Washington, marijuana use in the past 30 days by adults age 18 and above increased slightly, from 8% in 2011 to 10% in 2014, but the increase was not statistically significant (WSOFM, 2016).

Use by drivers: Marijuana presence among drivers increased in Washington.

- In roadside surveys in Washington conducted immediately before and 6 and 12 months after legal sales began in July 2014, the proportion of THC-positive drivers increased from 14.6% to 19.4% and then to 21.4%, though the increases were not statistically significant (NHTSA, 2016; Ramirez et al., 2016). The increase was concentrated in the daytime: from 8% THC-positive before sales began to 19% afterwards, compared to nighttime proportions of 18% before and 22% afterwards.

Arrests and crashes: Marijuana presence in arrested and crash-involved drivers increased in Washington.

- In Washington, the proportion of suspected impaired driving cases that tested positive for THC averaged 19.1% from 2009-2012, then rose to 24.9% in 2013 (Couper and Peterson, 2014) and to 28.0% in 2014 and 33% in preliminary data from the first four months of 2015 (Couper, 2015).

- Between 2005 and 2014, the proportion of Washington DUI and collision cases tested by toxicology that involved THC, excluding those positive for alcohol, increased significantly, from 20% to 30%. The median THC level increased significantly from 4.0 ng/mL in 2005 to 5.6 ng/mL (Banta-Green et al., 2016).

Fatal crashes: Fatal crashes involving marijuana increased in both Colorado and Washington.

- Marijuana-related traffic deaths increased 66% in the four-year average (2013-2016) since Colorado legalized recreational marijuana compared to the four-year average (2009-2012) prior to legalization. During the same time period, all traffic deaths increased 16%. In 2009, 9% of traffic fatalities involved drivers who tested positive for marijuana. By 2016, that number more than doubled to 21% (RMHIDTA, 2017).

- From 2010 through 2013, the estimated number and proportion of drivers involved in fatal crashes in Washington who had a detectable concentration of THC in their blood ranged from 48 to 53 (7.9% to 8.5%). The number and proportion both approximately doubled to 106 (17.0%) in 2014 (Tefft et al., 2016).

Crash rates: No firm conclusions yet available.

- A study comparing overall traffic fatality rates per travel mile in Colorado, Washington, and eight control states between 2009 and 2015 found that fatality rate changes in Colorado and Washington were similar to changes in the control states (Aydelotte et al., 2017).

- A study of marijuana-related traffic fatalities in Colorado, Washington, and control states between 2000 and 2016 concluded that marijuana-related fatality rates increased similarly in Colorado, Washington, and the control states (Hansen et al., 2018).

- Police-reported crash rates per registered vehicle increased by about 5.2% after retail sales of marijuana began in Colorado, Oregon, and Washington compared to neighboring control states (IIHS, 2018).

- Collision claim frequencies increased by about 6% after retail sales began in Colorado, Nevada, Oregon, and Washington compared to neighboring control states (IIHS, 2018).

Driver views on marijuana and driving: Marijuana users believe that marijuana doesn't affect their driving and will drive "high" regularly in both Colorado and Washington.

- In surveys and focus groups in Colorado and Washington after legalization, almost all regular marijuana users believed that marijuana doesn't impair their driving and some believed that marijuana improves their driving (CDOT, 2014; PIRE, 2014; Hartman and Huestis, 2013). Most of these regular marijuana users drove "high" on a regular basis. They believed it is safer to drive after using marijuana than after drinking alcohol. They believed that they have developed a tolerance for marijuana's effects and can compensate for any effects, for instance by driving more slowly or by allowing greater headways.

- In a September 2014 survey of drivers in Colorado and Washington who reported any marijuana use in the past month, 43.6% reported driving under the influence of marijuana in the past year and 23.9% had driven within one hour of using marijuana at least five times in the past month (Davis et al., 2016).

References

Aydelotte, J.D., Brown, L.H., Lutman, K.M., et al. (2017). Crash fatality rates after recreational marijuana legalization in Washington and Colorado. *American Journal of Public Health*. doi:10.2105/AJPH.2017.303848

Banta-Green, C., Rowhani-Rahbar, A., Ebel, B.E. et al. (2016). Cannabis Use among Drivers Suspected of Driving Under the Influence or Involved in Collisions: Analyses of Washington State Patrol Data. Washington DC: AAA Foundation for Traffic Safety. https://www.aaafoundation.org/cannabis-useamong-drivers-suspected-driving-under-influence-orinvolved-collisions-analysis.

CDOT (2014). *Drive High, Get a DUI: CDOT Marijuana Impaired Driving Campaign*. Powerpoint presentation. Denver, CO: Colorado Department of Transportation.

CDOT (2018). *Marijuana-involved Fatalities in Colorado, by THC Type*. Denver, CO: Colorado Department of Transportation. https://www.codot.gov/safety/alcohol-and-impaired-driving/druggeddriving/drugged-driver-statistics

Couper, F. (2015). Analysis of suspected impaired driving cases (DUI & DRE) received at the Washington State Toxicology Laboratory (statewide data from blood results): Preliminary data shown for 2015. *media.npr.org/assets/news/2015/08/THC-1.pdf*

Couper, F. and Peterson, B. (2014). The prevalence of marijuana in suspected impaired driving cases in Washington state. Journal of Analytical Toxicology, 38, 569-574.

Davis, K.C., Allen, J., Duke, J. et al. (2016). Correlates of marijuana drugged driving and openness to driving while high: Evidence from Colorado and Washington. Plos One. https://doi.org/10.1371/journal.pone.0146853

Hansen, B., Miller, K., and Weber, C. (2018). *Early Evidence on Recreational Marijuana Legalization and Traffic Fatalities*. NBER Working Paper No. 24417. National Bureau of Economic Research. http://www.nber.org/papers/w24417

Hartman, R. L. and Huestis, M. A. (2013). Cannabis effects on driving skills. *Clinical Chemistry* 59(3), 478–492.

IIHS (2018). *Legal Pot: Crashes Are Up in States with Retail Sales*. IIHS Status Report 53 (6). Arlington, VA: Insurance Institute for Highway Safety. http://www.iihs.org/iihs/sr/statusreport/sr

NHTSA (2016). Drivers' Use of Marijuana in Washington State. Traffic Tech. DOT HS 812 307. www.nhtsa.gov/staticfiles/nti/pdf/812307-TT-Marijuana_Use_in_WA.pdf

PIRE (2014). *Washington State Roadside Survey, October 2014*. Calverton, MD: Pacific Institute for Research & Evaluation.

Ramirez, A., Berning, A., Carr, K., et al. (2016). Marijuana, Other Drugs, and Alcohol Use by Drivers in Washington State. DOT HS 812 299. Washington, DC: National Highway Traffic Safety Administration. www.nhtsa.gov/staticfiles/nti/pdf/812299-WashingtonStatedrugstudy.pdf.

RMHIDTA (2017). *The Legalization of Marijuana in Colorado: The Impact; Vol. 5* Rocky Mountain High Intensity Drug Trafficking Area. https://rmhidta.org/default.aspx?menuitemid=781&menugroup=RMHIDTA+Public+Overview

Tefft, B.C., Arnold, L.S., and Grabowski, J.G. (2016). Prevalence of Marijuana Involvement in Fatal Crashes: Washington, 2010 – 2014. Washington DC: AAA Foundation for Traffic Safety. https://www.aaafoundation.org/sites/default/files/PrevalenceOfMarijuanaInvolvement.pdf

WSOFM (2016). Monitoring Impacts of Recreational Marijuana Legalization, 2015 Update Report. Olympia, WA: Office of Financial Management. https://sac.ofm.wa.gov/impacts-recreational-marijuana-legalization-washington

WTSC (2016). Driver Toxicology Testing and the Involvement of Marijuana in Fatal Crashes, 2010-2014. Washington Traffic Safety Commission. http://wtsc.wa.gov/research-data/traffic-safety-studies/.

Published October 2018

MITCHELL D. ROTH
PROSECUTING ATTORNEY

DALE A. ROSS
FIRST DEPUTY
PROSECUTING ATTORNEY

655 KĪLAUEA AVENUE
HILO, HAWAI'I 96720
PH: (808) 961-0466
FAX: (808) 961-8908
(808) 934-3403
(808) 934-3503

WEST HAWAI'I UNIT
81-980 HALEKI'I ST, SUITE 150
KEALAKEKUA , HAWAI'I 96750
PH: (808) 322-2552
FAX: (808) 322-6584

OFFICE OF THE PROSECUTING ATTORNEY

TESTIMONY IN OPPOSITION TO HOUSE BILL 673 HD1

A BILL FOR AN ACT RELATING TO AGRICULTURE

COMMITTEE ON JUDICIARY
Rep. Chris Lee, Chair
Rep. Joy A. San Buenaventura, Vice Chair

Thursday, February 14, 2019, 2:05 P.M.
State Capitol, Conference Room 325

Honorable Chair Nishimoto, Vice-Chair San Buenaventura, and Members of the Committee on Judiciary, the Office of the Prosecuting Attorney, County of Hawai'i submits the following testimony in Opposition of House Bill No. 673 HD1.

This measure allows physician assistants to provide written certification for qualifying patients. Allows licensed dispensaries to have up to two additional manufacturing or processing facilities separate from their production facilities. Provides a process for the voluntary or involuntary sale or transfer of an individual dispensary license. Allows retail dispensaries to operate on state and federal holidays. Allows a licensed dispensary to purchase medical cannabis or manufactured cannabis products from another licensed dispensary, with department approval, in the event of a crop failure. Allows licensed retail dispensaries to sell edible cannabis and cannabidiol products. (HB673 HD1)

Edible marijuana is a very different form of marijuana product, and the effects of THC when consumed in edibles compared to smoking sometimes takes several hours. There are continued concerns on patient, product, and public safety. Dosing levels and dosing consistency is not well established, absorption rates differ among individuals, and certain edibles could be attractive to minors such as baked goods and candies.

According to a November 2015 report from the Canadian Centre on Substance Abuse entitled "Cannabis Regulation: Lessons Learned in Colorado and Washington State," stakeholders in Colorado and Washington recommended that any jurisdiction considering policy change, including commercialization and legalization of marijuana, should:

- "Promote collaboration to bring diverse partners to the table from the beginning and to promote open, consistent communication and collaborative problem-solving;"
- "Develop a clear, comprehensive communication strategy to convey details of the regulations prior to implementation, so that the public and other stakeholders

understand what is permitted, as well as the risks and harms associated with use, so that individuals can make informed choices;" as well as

- "Ensure consistent enforcement of regulations by investing in training and tools for those responsible for enforcement, particularly to prevent and address impaired driving …."

Stakeholders in both states agreed that "moving gradually and decreasing the restrictiveness of regulations is easier than increasing them, so they recommended beginning with a more restrictive framework and easing restrictions as evidence indicates. Colorado's experience with edible cannabis products illustrates the importance of this theme." It is vital that the public is properly educated on the effects and dangers of consuming marijuana and driving while impaired.

In Hawaii, a local study on motor vehicle crash fatalities and undercompensated care associated with legalization on medical marijuana finds that "THC positivity among driver fatalities increased since legalization, with a threefold increase from 1993-2000 to 2001-2015. THC positivity among all injured patients tested at our highest level trauma center increased from 11% before to 20% after legalization. From 2011 to 2015, THC, positive patients were significantly less likely to wear a seatbelt or helmet (33% vs 56%)." The study was published in the Journal of Trauma and Acute Care Surgery in May 2018.

Additionally, 22 percent of fatal crashes that occurred in Hawaii during calendar years 2013 through 2017 involved drivers, bicyclists and pedestrians who tested positive for having marijuana in their systems. Legalizing edible cannabis will result in an increase in traffic crashes that may lead to serious injuries and deaths on our roads.

The County of Hawaii, Office of the Prosecuting Attorney is concerned about improving highway safety and protecting the lives of our community members, visitors and further targeting of youth in the misuse of edibles.

For all of the foregoing reasons, the Office of the Prosecuting Attorney, County of Hawai'i opposes the passage of House Bill No. 673 HD 1. Thank you for the opportunity to testify on this matter.

HB-673-HD-1
Submitted on: 2/12/2019 3:16:46 PM
Testimony for JUD on 2/14/2019 2:05:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
Michael Golojuch Jr	LGBT Caucus of the Democratic Party of Hawaii	Support	Yes

Comments:

Aloha Representatives,

The LGBT Caucus of the Democratic Party of Hawaii supports the passage of HB 673 HD 1.

Mahalo for your consideration and for the opportunity to testify.

Mahalo,

Michael Golojuch, Jr.
Chair
LGBT Caucus of the Democratic Party of Hawaii

HB-673-HD-1
Submitted on: 2/13/2019 6:51:19 AM
Testimony for JUD on 2/14/2019 2:05:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
Kat Brady	Community Alliance on Prisons	Support	Yes

Comments:

Aloha Judiciary Committee!

Community Alliance on Prisons supports this measure that helps our ailing citizens to access safe medicine! Please pass this measure. Mahalo for this opportunity to testify

HEALTH

Hawai'i Educational Association for Licensed Therapeutic Healthcare

The Voice of Hawai'i's Licensed Medical Cannabis Dispensaries

HAWAII EDUCATIONAL ASSOCIATION FOR LICENSED THERAPEUTIC HEALTHCARE

To: Representative Chris Lee, Chair
Representative Joy San Buenaventura, Vice-Chair
Members of the House Judiciary Committee

Fr: Blake Oshiro, Esq. on behalf of the HEALTH Assn.

Re: Testimony **Strong Support** - **House Bill (HB) 673, House Draft (HD) 1**
RELATING TO MEDICAL CANNABIS

Dear Chair Lee, Vice-Chair San Buenaventura, and Members of the Committee:

HEALTH is the trade association made up of the eight (8) licensed medical cannabis dispensaries under Haw. Rev. Stat. (HRS) Chapter 329D. We **support HB673, HD1** as an important bill to enhance the medical cannabis dispensary program with additional patient access, product controls and safety, and improvements to the administration of the program.

We generally support the amendments made by the House Health Committee, with the exception of some of the conditions on the sale of cannabidiol products, as explained in #6 of our testimony below, and a request to revisit the bill's original language on laboratory testing standards that was deleted from the bill based on DOH objections.

(1) SALE OR TRANSFER OF LICENSE

While licensed medical cannabis dispensaries are still a new and emerging industry since their establishment in 2015, most production centers and retail facilities have only been operating for several months and less than 2 years.

However, there are already instances of the leadership within a licensed dispensary having changed. The current law does not provide for a process for a transfer or sale of any significant interest in the licensed dispensary entities and applicants. As such, SECTION 3 of the bill proposes to create a process for the individual who applied for and is the recognized initial "applicant," to transfer their interest if it is an involuntary circumstance (death, disability, incapacity), or to notify the Department of Health (DOH) of an intention to sell or transfer voluntarily, all of which is subject to the DOH's approval

to ensure that any new individual would meet the qualifications required under the law for the initial applicant.

(2) PHYSICIAN ASSISTANTS

SECTION 4 of the bill propose to increase patient access by allowing physician assistants to provide written certification for qualifying patients. The current law allows physicians or advance practice registered nurses to provide written certifications and to also be afforded certain protections in their professional roles in doing so. Physician assistants, are another profession authorized to prescribe controlled substances under a physician's supervision. In many rural areas, we believe that access to such professionals can be a challenge. As such, we believe that allowing physician assistants to certify qualified patients will improve patient access to medical cannabis.

(3) SEPARATE PROCESSING FACILITIES FROM PRODUCTION FACILITIES

SECTION 5, 6, 8 and 10 of the bill proposes to allow licensed dispensaries to have manufacturing or processing facilities separate from their production facilities, while remaining subject to all regulations under the law. The current law only allows two (2) production facilities, and so having a processing facility under the current law would be required to be one of the two, or combined with, a production facility.

However, this is not feasible, especially if there is a move to allow edible products. There are regulatory issues and burdens with processing facilities that are not compatible with the location of production facilities. For example, if medical cannabis is made into an edible product, this would be required to be made and processed in a commercial kitchen for food safety purposes. These standards include infrastructure like grease traps, walk-in refrigeration, and other standards that are not allowed or compatible on agricultural lands where a production facility would be located. Simply stated, a commercial kitchen will not be permitted on agriculture land.

As such, the bill proposes to separate out processing facilities from production centers, but all still subject these processing facilities to the DOH's authority.

(4) STATE AND FEDERAL HOLIDAYS

SECTION 8 of the bill proposes to delete the current prohibition, and instead, would allow licensed retail dispensary locations to operate on state and federal holidays. As medical cannabis is recognized as medicine, there seems to be no reasonable

justification to deny patient's access to such medicine on a holiday. It is our understanding that the DOH is agreeable with this change.

(5) CROP FAILURE SAFEGUARD FOR PATIENT ACCESS AND INTRASTATE TRANSPORT

SECTIONS 7 and 8 of the bill allows a licensed dispensary to purchase medical cannabis or manufactured cannabis products from another licensed dispensary, with approval from the DOH to ensure patient access to cannabis in the event of a crop failure. The bill also proposes to authorize intrastate transport for this purpose.

Other states have created a provision so that in the event of a crop failure or other foreseeable circumstance that devastates or eliminates an entire cannabis crop for a dispensary, there is an alternative safeguard by which a licensed dispensary can purchase from another dispensary to ensure that their patients continue to have access to their medical cannabis. This is especially important for counties such as Kauai which only have one licensed dispensary, or Hawaii Island where the dispensaries could be located far away from one another. All transactions would be monitored and regulated by the DOH.

In order for this process to be implemented though, changes and clarification to the allowance for inter-island transport would need to be made.

The law on transport appears to be uncertain. While there is an old law that MAY permit transport, there is also some opinion that a state law authorizing such transport is necessary. The 1972 Federal Aviation Administration (FAA) rule that bans pilots from operating aircraft with illegal substances on board specifies that it "does not apply to any . . .marihuana, . . . authorized by or under any Federal or State statute or by any Federal or State agency."[1]

[1] Title 14: Aeronautics and Space
PART 91—GENERAL OPERATING AND FLIGHT RULES
Subpart A—General

§91.19 Carriage of narcotic drugs, marihuana, and depressant or stimulant drugs or substances.
(a) Except as provided in paragraph (b) of this SECTION, no person may operate a civil aircraft within the United States with knowledge that narcotic drugs, marihuana, and depressant or stimulant drugs or substances as defined in Federal or State statutes are carried in the aircraft.

Thus, the adoption of this language into law would provide some necessary protection and clarification on the state's position, and some further support for dispensaries to be able to transport medical cannabis under these limited circumstances.

(6) EDIBLES AND CBD

The current marketplace is quite changed since this law was passed less than 4 years ago. A plethora of retail shops that now sell cannabidiol (CBD), and the recent Agriculture Improvement Act of 2018, P.L. 115-334, or the federal Farm Act, no longer considers CBD as an illegal substance.

With these changes, a person can walk into any of these many places (health food stores, grocery and drug stores, convenience stores, or even stores that specialize in CBD products) and purchase any CBD product with no regulations or requirements. These products have no laboratory testing, no labeling requirement, no assurances of accurate potency, and moreover, could easily exceed the lawful tetrahydrocannabinol (THC) limit of 0.3%.

Thus, SECTION 9 of the bill proposes to add CBD products as another item that can be sold at retail locations. ~~This puts the dispensaries on equal footing with any other retail facility. But more importantly,~~ qualified patients are requesting CBD products to supplement their medical cannabis and medical cannabis products that contain lawful THC from the dispensary. However, we request that the standards for CBD products outlined in SECTION 9 (11)(B) and (C) be removed or modified. Requiring dispensaries to enforce Hawaii medical cannabis regulation standards on CBD products legal under the federal farm act is excessive regulation. That said, the DOH has the administrative authority to establish standards regarding the laboratory testing and packaging of medical cannabis products pursuant to 329D. Therefore, the DOH could establish and enforce laboratory testing and packaging standards for third-party CBD products that are permitted to be sold or transferred to a licensed dispensary. Further, we strongly recommend modified labeling standards for 3rd-Party CBD products. HRS 329D-11 contains prohibitive standards that are specific to the quality and safety of medical cannabis produced by a licensed medical cannabis dispensary, but are extraneous for 3rd party CBD producers, which are not regulated under medical cannabis laws:

(b) Paragraph (a) of this SECTION does not apply to any carriage of narcotic drugs, marihuana, and depressant or stimulant drugs or substances authorized by or under any Federal or State statute or by any Federal or State agency.

- 329D-11 (a) (2) "...only black lettering on a white background with no pictures or graphics."
- 329D-11 (a) (3) "For medical use only"
- 329D-11 (a) (4) "Not for resale of transfer to another person"
- 329D-11 (a) (7) Includes the name of the production center where marijuana in the product was produced, including the batch number and date of packaging

Therefore, the current packaging and labeling requirements under 329D and Administrative rules 11-850 are not fully applicable to 3rd-party CBD products. SECTION 2 and 9 also allows dispensaries to sell edible products, but under regulation by the DOH. There are several states, such as Colorado, that have vigorous and stringent standards for edible products that the DOH could look to for guidance. These include mandatory symbols, labeling warnings, banned products, and prohibitions on use of words or images that could be considered as child-appealing.[2]

More importantly, a large percentage of Hawai'I's registered patients are requesting edible products from dispensaries. Many prefer to administer cannabinoids orally rather than smoking. The option to use an edible product becomes even more important for patients with lung disease or those who use supplemental oxygen. Many patients like the discretion and longer lasting effects of edible products. It is puzzling that Hawai'i, with some of the most restrictive smoke-free laws in the nation, bans edible products from dispensary shelves, effectively encouraging registered patients to smoke.

SECTION 9 of the bill does not lay out these provisions, but instead allows the DOH to regulate this area and determine how, what, and when such edible products would be available.

(7) REMEDIATION OF BATCHES FOR FINAL PRODUCT TO PASS LABS

The House Health Committee deleted one section of the original HB673 which deals with laboratory testing which we would like the committee to consider re-inserting in the bill.

```
Section 329D-8, Hawaii Revised Statutes, is amended by amending
subsection (a) to read as follows:
     "(a) The department shall establish and enforce standards
for laboratory-based testing of cannabis and manufactured
```

[2] https://www.colorado.gov/pacific/enforcement/med-rules

cannabis products for content, contamination, and consistency; provided that in establishing these standards, the department shall:

(1) Review and take guidance from the testing programs and standards utilized in other jurisdictions;

(2) Consider the impact of the standards on the retail cost of the product to the qualifying patient;

(3) Review and take guidance from the testing programs and standards for pesticides under the regulations of the United States Environmental Protection Agency;

(4) Consider processes that allow any batch of cannabis or manufactured cannabis products that does not meet testing standards to be corrected and manufactured as long as any final cannabis or manufactured cannabis product passes testing standards;

(5) For the testing for microbiological impurities, consider the benefits of organically grown cannabis that features the use of bacteria in lieu of pesticides; and

[~~(5)~~] (6) Include permission for qualifying patients and primary caregivers to obtain testing services directly from certified laboratories on the island where the qualifying patient and primary caregiver reside."

We believe this portion was taken out of the bill by the Health Committee based on the DOH's objections. However, we believe that there is a need for policy clarification on the process of laboratory testing and what is supposed to happen when a batch does not meet the stringent standards. We understand that certain DOH officials have taken the position that such a batch, and its represented crop, needs to be destroyed. Yet, we also are aware of instances where a batch of product that did not initially meet testing standards was allowed to be corrected and then re-tested so that the final product passed the laboratory testing. We believe that this latter approach is consistent with every other state and jurisdiction in their handling of such a situation.

HEALTH

Hawai'i Educational Association for Licensed Therapeutic Healthcare

The Voice of Hawai'i's Licensed Medical Cannabis Dispensaries

Should a batch not meet the requirements for microbial testing, such batches and the crop they represent can be corrected by processing the herbal cannabis. The resulting processed product would be required to pass all required third-party lab tests. For example, if a batch of flower is found to have moisture levels above the acceptable range, it can be processed into a medical cannabis product like oil or ointment that would then be tested again, and required to meet and pass the laboratory standards prior to dispensing.

We believe this is a more reasonable approach to the testing and helps to ensure sufficient supply for registered patients. The purpose of laboratory standards is to ensure that any final product, purchased from a licensed dispensary, is safe. This clarified laboratory testing process would meet this purpose while helping to ensure a wide range of cannabis products are available in sufficient quantities to registered patients.

Thank you for your consideration.

HB-673-HD-1
Submitted on: 2/13/2019 1:44:40 PM
Testimony for JUD on 2/14/2019 2:05:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
Carl Bergquist	Drug Policy Forum of Hawaii	Support	Yes

Comments:

Chair Lee, Vice Chair San Buenaventura:

We support this measure to facilitate the operation of the medical cannabis dispensary system in ways that will help ensure that the needs of Hawaii's 25,000 medical cannabs patients. Soon, they will by joined by out of state visitors who will be authorized to enter the dispensaries and buy medical cannabis during their business or holiday visit to the islands.

With that in mind, we ask that you consider amending the bill as follows:

- Regarding edibles, please revert to the original language in the bill. Edibles have been discussed in two separate working groups formed pursuant to Act 230 of 2016 & Act 116 of 2018. They are available in numerous other states including in Oklahoma, which got its entire program up an running in a matter of months. Edibles are often the only form of medicine that can help patients who do not want, or cannot, inhale. In addition, so many of our residents are renters, and our out of state visitors also do not stay in private residences mostly, so they cannot smoke their medicine;

- Please re-insert the language from the original version, stating that "A qualifying patient shall not be prohibited from use of cannabis in private rooms or residences located in a state-licensed assisted living facility". These are some of the most vulnerable patients in our state and this would give their loved ones and they a sense of security if they need to use medical cannabis to relieve pain and suffering.

HB-673-HD-1
Submitted on: 2/13/2019 10:45:31 AM
Testimony for JUD on 2/14/2019 2:05:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
Melodie Aduja	O`ahu County Committee on Legislative Priorities of the Democratic Party of Hawai`i	Support	No

Comments:

Akamai Cannabis Clinic
3615 Harding Ave, Suite 304
Honolulu, HI 96816

TESTIMONY ON HOUSE BILL 673 HD1
RELATING TO MEDICAL CANNABIS
By
Clifton Otto, MD

House Committee on Judiciary
Representative Chris Lee, Chair
Representative Joy A. San Buenaventura, Vice Chair

Thursday, February 14, 2019; 2:05 PM
State Capitol, Conference Room 325

Thank you for the opportunity to provide testimony on this measure. Please consider the following comments related to this bill:

Comment #1 – It is not necessary to specifically authorize Physician's Assistants to perform Written Certifications and provide an ongoing doctor-patient relationship for the supervision of the medical use of cannabis. This function is already possible under the provision that allows a Physician to supervise the activities of an associated Physician's Assistant in Hawaii. In addition, a Physician's Assistant is a Physician's Assistant, not a Physician. You cannot define the two as being the same when there is a separate definition for Physician's Assistant under HRS 453-5.3. If a Physician's Assistant will be performing a Written Certification under the supervision of a Physician, then the supervising Physician should be required to sign off on the Written Certification and Registration Application.

Comment #2 – If you want dispensaries to transport material to other islands for the purpose of selling to other dispensaries in the event of crop failure, then the issue of the inter-island transportation of cannabis needs to be fully addressed. We can no longer allow this kind of transport to occur, as it is now being done with laboratory samples, under the false assumption that such activity violates federal law.

Federal Aviation Regulation 14 CFR 91.91 clearly states that the carriage of cannabis aboard aircraft is exempt from federal regulation if authorized by state law or state agency.

14 CFR 91.19 Carriage of narcotic drugs, marihuana, and depressant or stimulant drugs or substances.

(a) Except as provided in paragraph (b) of this section, no person may operate a civil aircraft within the United States with knowledge that narcotic drugs, marihuana, and depressant or stimulant drugs or substances as defined in Federal or State statutes are carried in the aircraft.

(b) Paragraph (a) of this section **does not apply** to any carriage of narcotic drugs, marihuana, and depressant or stimulant drugs or substances **authorized by** or under any Federal or **State statute** or by any Federal or **State agency**.

If the problem is that certain state agencies are refusing to recognize the authority of state law as it applies to the inter-island transport of cannabis, then the following amendment should be made to this section:

(4) The selling dispensary is permitted by the department to transport cannabis or manufactured cannabis products to another county or another island, for the limited purpose of completing its sale to the purchasing dispensary pursuant to this subsection, in an amount and manner prescribed by the department by rules adopted pursuant to this chapter and chapter 91 and with the understanding that state law and its protections do not apply outside of the jurisdictional limits of the State; and

(5) Nothing in this subsection shall relieve any dispensary of its responsibilities and obligations under this chapter and chapter 329."

(6) The Department of Public Safety and the Department of Transportation shall adopt rules that provide for the provisions of this section.

Comment #3 - However, it would be a discrimination against registered patients, and a violation of the Americans with Disabilities Act, to only focus on the inter-island transport of cannabis by dispensaries, and not to recognize the medical necessity of patients to transport their Medical Use Cannabis to other islands as well.

The current situation for patients is being made worse by the fact that local law enforcement officers are telling patients that they cannot transport their cannabis for personal medical use to another island because such transport is against federal law, which is an unauthorized enforcement of federal law, and is not entirely true because of the federal aviation regulation noted above.

Therefore, the following amendment needs to be made to the Medical Use of Cannabis section of Hawaii's Uniform Controlled Substances Act (UCSA), in order to protect the right of patients to carry their cannabis for personal medical use to other islands:

HRS 329-122(f):

"For purposes of interisland transportation, "transport" of cannabis, usable cannabis, or any manufactured cannabis product, by any means is allowable only by a qualifying patient or qualifying out-of-state patient for their personal medical use, or between a production center or retail dispensing location and a certified laboratory for the sole purpose of laboratory testing pursuant to section 329D-8, as permitted under section 329D-6(m) and subject to section 329D-6(j), and with the understanding that state law and its protections do not apply outside of the jurisdictional limits of the State. The Department of Public Safety and the Department of Transportation shall adopt rules that provide for the provisions of this section.

Comment #4 - And the last piece of the inter-island transportation issue that needs to be addressed has to do with re-harmonizing the Medical Use of Cannabis in Hawaii with the scheduling provisions of Hawaii's UCSA.

A controlled substance with accepted medical use cannot have the highest degree of danger. Therefore, in order to clarify that Medical Use Cannabis is not subject to the same regulations as a state Schedule I controlled substance, the following amendment needs to be made to the scheduling section of Hawaii's UCSA:

Section 329-14, Hawaii Revised Statutes, is amended by adding the following subsection:
(f) The enumeration of cannabis, tetrahydrocannabinols or chemical derivatives of these as Schedule I controlled substances does not apply to the medical use of cannabis pursuant to Section 329, Part IX, and Section 329D, Hawaii Revised Statutes.

Comment #5 – Cannabidiol (CBD) products that have been produced under the Agriculture Improvement Act of 2018 cannot be sold for medical use. Producing CBD that is intended for medical use would require Food and Drug Administration (FDA) approval as an approved drug product for inter-state marketing.

In fact, the FDA is very clear that any compound that has FDA-approved medical use (ie. THC in Dronabinol and CBD in Epidiolex) may not be sold as a food additive or a dietary supplement.

“Under the FD&C Act, it’s illegal to introduce drug ingredients like these into the food supply, or to market them as dietary supplements. This is a requirement that we apply across the board to food products that contain substances that are active ingredients in any drug.”

However, the situation is very different for CBD this is produced by locally licensed hemp manufacturers in compliance with the Agriculture Improvement Act of 2018, since such products do not require FDA approval if they will not enter inter-state commerce. If you want dispensaries to be able to sell CBD products derived from hemp, then one solution would be to allow dispensaries to contract with local hemp manufacturers for the production of CBD that will be sold exclusively by dispensaries for medical use.

Comment #6 - Hawaii’s Dispensary System is fundamentally flawed because the Legislature ignored the recommendation of the Dispensary Task Force to create a horizontally integrated production and distribution system, rather than the current vertical monopoly. This error needs to be corrected if Hawaii’s Medical Use of Cannabis Program is to be successful.

HB-673-HD-1
Submitted on: 2/13/2019 12:20:36 PM
Testimony for JUD on 2/14/2019 2:05:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
Miles W. Tuttle	Kine Bottles	Support	No

Comments:

HB-673-HD-1
Submitted on: 2/12/2019 2:11:13 PM
Testimony for JUD on 2/14/2019 2:05:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
Javier Mendez-Alvarez	Individual	Support	No

Comments:

HB-673-HD-1
Submitted on: 2/12/2019 6:45:07 PM
Testimony for JUD on 2/14/2019 2:05:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
Mike Golojuch	Individual	Support	No

Comments:

i strongly support HB673.

Mike Golojuch, Sr.

HB-673-HD-1
Submitted on: 2/13/2019 8:29:36 AM
Testimony for JUD on 2/14/2019 2:05:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
Sally	Individual	Support	No

Comments:

HB-673-HD-1
Submitted on: 2/12/2019 11:01:22 PM
Testimony for JUD on 2/14/2019 2:05:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
Gerard Silva	Individual	Oppose	No

Comments:

MJ is a Drug that can and will get out of hand no matter who runs this program.

Drgs are the problem THINK ABOUT IT!!!

HOUSE OF REPRESENTATIVES
THIRTIETH LEGISLATURE, 2019
STATE OF HAWAII

H.B. NO. 673

RELATING TO MEDICAL CANNABIS

NOTICE OF HEARING

DATE: Tuesday, February 5, 2019
TIME: 9:45 a.m.
PLACE: Conference Room 329
State Capitol

RE: HB 673

HB 673 proposed amendments state:

The purpose of this Act is to:

(1) Allow naturopathic physicians and physician assistants practicing under supervision to provide written certification for qualifying patients to improve patient access to medical cannabis;

There are many instances where the term physician assistant is not included in the language, where it should be. Example:

2. By amending the definition of "written certification" to read:
""Written certification" means the qualifying patient's medical records or a statement signed by a qualifying patient's physician, naturopathic physician, or advanced practice registered nurse, stating that in the physician's, naturopathic physician's, or advanced practice registered nurse's professional opinion,...

This and similar sections need to also include physician assistant as follows:
There are multiple omissions which are corrected by these proposed amendments.

""Written certification" means the qualifying patient's medical records or a statement signed by a qualifying patient's physician, naturopathic physician, *physician assistant*, or advanced practice registered nurse, stating that in the physician's, *physician assistant's*, naturopathic physician's, or advanced practice registered nurse's professional opinion,...

The attached additional proposed amendments add physician assistant language as needed for consistency throughout the bill. They further clarify that physician assistants (PAs) are licensed to practice medicine as per HRS 453.

The purpose of this Act is to:

(1) Allow naturopathic physicians and physician assistants ~~practicing under supervision~~ , licensed to practice medicine under HRS 453, to provide written certification for qualifying patients to improve patient access to medical cannabis;

Physician assistants (PAs) are designated as primary care providers by HMSA, Medicare, and other insurance providers and work in rural areas where there are documented provider shortages. PAs should be included amongst providers authorized to provide written certification for medical cannabis.

The proposed amendments, as attached, will provide continuity and eliminate ambiguity. Please include these amendments as you move this bill forward.

Fielding Mercer, PA-C
Previous president and legislative liaison, Hawaii Academy of Physician Assistants

HOUSE OF REPRESENTATIVES
THIRTIETH LEGISLATURE, 2019
STATE OF HAWAII

H.B. NO. 673

A BILL FOR AN ACT

RELATING TO MEDICAL CANNABIS.

BE IT ENACTED BY THE LEGISLATURE OF THE STATE OF HAWAII:

SECTION 1. The legislature finds that Act 241, Session Laws of Hawaii 2015, codified as chapter 329D, Hawaii Revised Statutes, established a licensing framework for a statewide system of medical cannabis dispensaries to ensure access to medical cannabis for qualifying patients. Act 230, Session Laws of Hawaii 2016, Act 41, Session Laws of Hawaii 2017, and Act 116, Session Laws of Hawaii 2018, made further amendments.

The legislature further finds that additional amendments to the law are warranted to clarify legislative intent, to ensure smooth administration of the law, to allow for adequate patient access to medical cannabis, and to resolve issues that have arisen under the current law.

The purpose of this Act is to:

(1) Allow naturopathic physicians and physician assistants ~~practicing under supervision~~ , licensed to practice medicine under HRS 453, to provide written

certification for qualifying patients to improve patient access to medical cannabis;

(2) Allow licensed dispensaries to have manufacturing or processing facilities separate from their production facilities, while remaining subject to all regulations under the law;

(3) Provide a process for the voluntary or involuntary sale or transfer of a dispensary license;

(4) Allow dispensaries to operate on state and federal holidays;

(5) Allow a licensed dispensary to purchase medical cannabis or manufactured cannabis products from another licensed dispensary, with approval from the department of health, to ensure patient access to cannabis in the event of a crop failure;

(6) Allow remediation of any cannabis batch that fails laboratory testing standards as long as any final product passes such standards; and

(7) Allow licensed retail dispensaries to sell edible cannabis and cannabidiol products.

SECTION 2. Chapter 329D, Hawaii Revised Statutes, is amended by adding a new section to be appropriately designated and to read as follows:

"§329D- **Sale or transfer of dispensary license.** (a) In the event of death, legal incapacity, or permanent disability of an individual dispensary licensee, the relevant entity licensee shall notify the department within thirty days of the individual licensee's inability to continue in the individual's capacity as a licensee, and shall provide to the department within another thirty days, a plan for the sale or transfer of the individual license to another individual who shall meet all the requirements under this chapter.

(b) In the event of a voluntary resignation by an individual licensee, termination of an individual licensee's employment with an entity licensee with or without cause, or any other permanent separation of the relationship between an individual licensee and an entity licensee, the relevant entity licensee shall submit a plan to the department for approval at least thirty days prior to any sale or transfer of the individual license to another individual who shall meet all the requirements under this chapter."

SECTION 3. Section 329-121, Hawaii Revised Statutes, is amended as follows:

1. By amending the definition of "physician" to read:

""Physician" means a person who is licensed to practice under chapter 453 and is licensed with authority to prescribe drugs and is registered under section 329-32. "Physician" [~~does~~

~~not~~] shall include a physician assistant as described in section 453-5.3."

2. By amending the definition of "written certification" to read:

""Written certification" means the qualifying patient's medical records or a statement signed by a qualifying patient's physician, physician assistant, naturopathic physician, or advanced practice registered nurse, stating that in the physician's, physician assistants, naturopathic physician's, or advanced practice registered nurse's professional opinion, the qualifying patient has a debilitating medical condition and the potential benefits of the medical use of cannabis would likely outweigh the health risks for the qualifying patient. The department of health may require, through its rulemaking authority, that all written certifications comply with a designated form. "Written certifications" are valid for one year from the time of signing; provided that the department of health may allow for the validity of any written certification for up to three years if the qualifying patient's physician, physician assistant, naturopathic physician, or advanced practice registered nurse states that the patient's debilitating medical condition is chronic in nature."

3. By adding a new definition to be appropriately inserted and to read:

""Naturopathic physician" means a person who holds a current license issued under chapter 455 to practice naturopathic medicine, is licensed with authority to prescribe drugs, and is registered under section 329-32."

SECTION 4. Section 329-122, Hawaii Revised Statutes, is amended as follows:

1. By amending subsection (a) to read:

"(a) Notwithstanding any law to the contrary, the medical use of cannabis by a qualifying patient shall be permitted only if:

(1) The qualifying patient has been diagnosed by a physician, physician assistant, naturopathic physician, or advanced practice registered nurse as having a debilitating medical condition;

(2) The qualifying patient's physician, physician assistant, naturopathic physician, or advanced practice registered nurse has certified in writing that, in the physician's, physician assistant's, naturopathic physician's, or advanced practice registered nurse's professional opinion, the potential benefits of the medical use of cannabis would likely outweigh the health risks for the particular qualifying patient; and

(3) The amount of cannabis possessed by the qualifying patient does not exceed an adequate supply."

2. By amending subsection (e) to read:

"(e) The authorization for the medical use of cannabis in this section shall not apply to:

(1) The medical use of cannabis that endangers the health or well-being of another person;

(2) The medical use of cannabis:

(A) In a school bus, public bus, or any moving vehicle;

(B) In the workplace of one's employment;

(C) On any school grounds;

(D) At any public park, public beach, public recreation center, recreation or youth center; or

(E) At any other place open to the public; provided that [~~a~~]:

(i) A qualifying patient shall not be prohibited from use of cannabis in private rooms or residences located in a state-licensed assisted living facility; and

(ii) A qualifying patient, primary caregiver, qualifying out-of-state patient, caregiver of a qualifying out-of-state patient, or an owner or employee of a medical cannabis

dispensary licensed under chapter 329D shall not be prohibited from transporting cannabis or any manufactured cannabis product, as that term is defined in section 329D-1, in any public place; provided further that the cannabis or manufactured cannabis product shall be transported in a sealed container, not be visible to the public, and shall not be removed from its sealed container or consumed or used in any way while it is in the public place; and

(3) The use of cannabis by a qualifying patient, parent, primary caregiver, qualifying out-of-state patient, or caregiver of a qualifying out-of-state patient, for purposes other than medical use permitted by this part."

SECTION 5. Section 329-123, Hawaii Revised Statutes, is amended by amending subsections (a) and (b) to read as follows:

"(a) Physicians, physician assistants, naturopathic physicians, or advanced practice registered nurses who issue written certifications shall provide, in each written certification, the name, address, patient identification number, and other identifying information of the qualifying patient. The department of health shall require, in rules adopted

pursuant to chapter 91, that all written certifications comply with a designated form completed by or on behalf of a qualifying patient. The form shall require information from [~~the~~]:

(1) The applicant[~~,~~];

(2) The primary caregiver[~~,~~]; and

(3) The physician, physician assistant, naturopathic physician, or advanced practice registered nurse, as specifically required or permitted by this chapter. The form shall require the address of the location where the cannabis is grown and shall appear on the registry card issued by the department of health. The certifying physician, physician assistant, naturopathic physician, or advanced practice registered nurse shall be required to have a bona fide physician-patient relationship, bona fide physician assistant-patient relationship, bona fide naturopathic physician-patient relationship, or bona fide advanced practice registered nurse-patient relationship, as applicable, with the qualifying patient. All current active medical cannabis permits shall be honored through their expiration date.

(b) Qualifying patients shall register with the department of health. The registration shall be effective until the expiration of the certificate issued by the department of health

and signed by the physician, physician assistant, naturopathic physician, or advanced practice registered nurse. Every qualifying patient shall provide sufficient identifying information to establish the personal identities of the qualifying patient and the primary caregiver. Qualifying patients shall report changes in information within ten working days. Every qualifying patient shall have only one primary caregiver at any given time. The department of health shall issue to the qualifying patient a registration certificate, and shall charge $35 per year."

SECTION 6. Section 329-126, Hawaii Revised Statutes, is amended by amending its title and subsection (a) to read as follows:

"**§329-126 Protections afforded to a treating physician, physician assistant, naturopathic physician, or advanced practice registered nurse.** (a) No physician, physician assistant, naturopathic physician, or advanced practice registered nurse shall be subject to arrest or prosecution, penalized in any manner, or denied any right or privilege for providing written certification for the medical use of cannabis for a qualifying patient; provided that:

(1) The physician, physician assistant, naturopathic physician, or advanced practice registered nurse has

diagnosed the patient as having a debilitating medical condition, as defined in section 329-121;

(2) The physician,physician assistant, naturopathic physician, or advanced practice registered nurse has explained the potential risks and benefits of the medical use of cannabis, as required under section 329-122;

(3) The written certification is based upon the physician's,physician assistant's, naturopathic physician's, or advanced practice registered nurse's professional opinion after having completed a full assessment of the patient's medical history and current medical condition made in the course of a bona fide physician-patient relationship, bona fide physician assistant-patient relationship, bona fide naturopathic physician-patient relationship, or bona fide advanced practice registered nurse-patient relationship, as applicable; and

(4) The physician, physician assistant, naturopathic physician, or advanced practice registered nurse has complied with the registration requirements of section 329-123."

SECTION 7. Section 329-128, Hawaii Revised Statutes, is amended by amending subsection (b) to read as follows:

"(b) Notwithstanding any law to the contrary, fraudulent misrepresentation to a law enforcement official of any fact or circumstance relating to the issuance of a written certificate by a physician, physician assistant, naturopathic physician, or advanced practice registered nurse not covered under section 329-126 for the medical use of cannabis shall be a misdemeanor. This penalty shall be in addition to any other penalties that may apply for the non-medical use of cannabis."

SECTION 8. Section 329D-2, Hawaii Revised Statutes, is amended by amending subsection (f) to read as follows:

"(f) Up to two production centers shall be allowed under each dispensary license; provided that[~~,~~] up to two separate manufacturing or processing facilities may be authorized which shall meet all requirements of any dispensary facility, but shall not be considered as production centers for the purposes of the two production center limit; provided further that, except as otherwise specified in subsection (k), each production center shall be limited to no more than three thousand cannabis plants. For purposes of this subsection, "plant" means a cannabis plant that is greater than twelve vertical inches in height from where the base of the stalk emerges from the growth medium to the tallest point of the plant, or greater than twelve horizontal inches in width from the end of one branch to the end of another branch; provided that multiple stalks emanating from

the same root ball or root system shall be considered part of the same single plant."

SECTION 9. Section 329D-3, Hawaii Revised Statutes, is amended by amending subsection (c) to read as follows:

"(c) A dispensary license shall not be sold or otherwise transferred from one person to another person[~~.~~] without approval from the department as provided in section 329D- ."

SECTION 10. Section 329D-6, Hawaii Revised Statutes, is amended to read as follows:

"**§329D-6 Dispensary operations.** (a) No person shall operate a dispensary, nor engage in the production, manufacture, or sale of cannabis or manufactured cannabis products, unless the person has obtained a license from the department pursuant to this chapter.

(b) No dispensary licensee, its officers, employees, or agents shall provide written certification for the use of medical cannabis or manufactured cannabis products for any person.

(c) No person under the age of twenty-one shall be employed by a dispensary licensee.

(d) Notwithstanding any other law to the contrary, including but not limited to sections 378-2 and 378-2.5, dispensaries:

(1) Shall deny employment to any individual who has been:

(A) Convicted of murder in any degree;

(B) Convicted of a class A or class B felony; or

(C) Convicted of a class C felony involving trafficking, distributing, or promoting a schedule I or II controlled substance other than cannabis within the last ten years; and

(2) May deny employment to any individual who has been convicted of a class C felony involving:

(A) Fraud, deceit, misrepresentation, embezzlement, or theft; or

(B) Endangering the welfare of a minor.

Employment under this chapter shall be exempt from section 378-2(a)(1), as it relates to arrest and court record discrimination, and section 378-2.5.

(e) Retail dispensing locations shall not be open for retail sales before 8:00 a.m. or after 8:00 p.m., Hawaii-Aleutian Standard Time, Monday through Sunday. [~~Retail dispensing locations shall be closed on official state and federal holidays.~~]

(f) All dispensary facilities, including but not limited to production centers and retail dispensing locations, shall be enclosed indoor facilities and shall maintain twenty-four hour security measures, including but not limited to an alarm system, video monitoring and recording on the premises, and exterior

lighting. A dispensary licensee who intends to utilize, as a production center, an enclosed indoor facility that includes a roof that is partially or completely transparent or translucent, as provided under section 329D-1, shall notify the department of that intention prior to altering or constructing the facility. Production centers shall remain locked at all times. Retail dispensing locations shall remain locked at all times, other than business hours as authorized by subsection (e), and shall only be opened for authorized persons.

(g) In all dispensary facilities, only the licensee, if an individual, registered employees of the dispensary licensee, registered employees of a subcontracted production center or retail dispensing location, employees of a certified laboratory for testing purposes, state employees authorized by the director of health, and law enforcement and other government officials acting in their official capacity shall be permitted to touch or handle any cannabis or manufactured cannabis products, except that a qualifying patient, primary caregiver, qualifying out-of-state patient, or caregiver of a qualifying out-of-state patient may receive manufactured cannabis products at a retail dispensing location following completion of a sale.

(h) A dispensary shall provide the department with the address, tax map key number, and a copy of the premises lease, if applicable, of the proposed location of a production center

allowed under a license for a county not later than thirty days prior to any medical cannabis or manufactured cannabis products being produced or manufactured at that production center.

(i) A dispensary shall provide the department with the address, tax map key number, and a copy of the premises lease, if applicable, of the proposed location of each retail dispensing location allowed under a license not less than sixty days prior to opening for business.

(j) The department shall establish, maintain, and control a computer software tracking system that shall have real time, twenty-four-hour access to the data of all dispensaries.

(1) The computer software tracking system shall collect data relating to:

(A) The total amount of cannabis in possession of all dispensaries from either seed or immature plant state, including all plants that are derived from cuttings or cloning, until the cannabis, cannabis plants, or manufactured cannabis product is sold or destroyed pursuant to section 329D-7;

(B) The total amount of manufactured cannabis product inventory, including the equivalent physical weight of cannabis that is used to manufacture manufactured cannabis products, purchased by a qualifying patient, primary caregiver, qualifying

out-of-state patient, and caregiver of a qualifying out-of-state patient from all retail dispensing locations in the State in any fifteen-day period;

(C) The amount of waste produced by each plant at harvest; and

(D) The transport of cannabis and manufactured cannabis products between production centers and retail dispensing locations[~~,~~] and as permitted by subsection (r), including tracking identification issued by the tracking system, the identity of the person transporting the cannabis or manufactured cannabis products, and the make, model, and license number of the vehicle being used for the transport;

(2) The procurement of the computer software tracking system established pursuant to this subsection shall be exempt from chapter 103D; provided that:

(A) The department shall publicly solicit at least three proposals for the computer software tracking system; and

(B) The selection of the computer software tracking system shall be approved by the director of the department and the chief information officer; and

(3) Notwithstanding any other provision of this subsection to the contrary, once the department has authorized a licensed dispensary to commence sales of cannabis or manufactured cannabis products, if the department's computer software tracking system is inoperable or is not functioning properly, as an alternative to requiring dispensaries to temporarily cease operations, the department may implement an alternate tracking system that will enable a qualifying patient, primary caregiver, qualifying out-of-state patient, and caregiver of a qualifying out-of-state patient to purchase cannabis or manufactured cannabis products from a licensed dispensary on a temporary basis. The department shall seek input regarding the alternate tracking system from medical cannabis licensees. The alternate tracking system may operate as follows:

(A) The department may immediately notify all licensed dispensaries that the computer software tracking system is inoperable; and

(B) Once the computer software tracking system is operational and functioning to meet the requirements of this subsection, the department may notify all licensed dispensaries, and the

alternate tracking system in this subsection shall be discontinued.

(k) A dispensary licensed pursuant to this chapter shall purchase, operate, and maintain a computer software tracking system that shall:

(1) Interface with the department's computer software tracking system established pursuant to subsection (j);

(2) Allow each licensed dispensary's production center to submit to the department in real time, by automatic identification and data capture, all cannabis, cannabis plants, and manufactured cannabis product inventory in possession of that dispensary from either seed or immature plant state, including all plants that are derived from cuttings or cloning, until the cannabis or manufactured cannabis product is sold or destroyed pursuant to section 329D-7;

(3) Allow the licensed dispensary's retail dispensing location to submit to the department in real time for the total amount of cannabis and manufactured cannabis product purchased by a qualifying patient, primary caregiver, qualifying out-of-state patient, and caregiver of a qualifying out-of-state patient from the dispensary's retail dispensing locations in the

State in any fifteen day period; provided that the software tracking system shall impose an automatic stopper in real time, which cannot be overridden, on any further purchases of cannabis or manufactured cannabis products, if the maximum allowable amount of cannabis has already been purchased for the applicable fifteen day period; provided further that additional purchases shall not be permitted until the next applicable period; and

(4) Allow the licensed dispensary to submit all data required by this subsection to the department and permit the department to access the data if the department's computer software tracking system is not functioning properly and sales are made pursuant to the alternate tracking system under subsection (j).

(l) No free samples of cannabis or manufactured cannabis products shall be provided at any time, and no consumption of cannabis or manufactured cannabis products shall be permitted on any dispensary premises.

(m) [~~A~~] Except as permitted pursuant to subsection (r), a dispensary shall not transport cannabis or manufactured cannabis products to another county or another island; provided that this subsection shall not apply to the transportation of cannabis or any manufactured cannabis product solely for the purposes of

laboratory testing pursuant to section 329D-8, and subject to subsection (j), if no certified laboratory is located in the county or on the island where the dispensary is located; provided further that a dispensary shall only transport samples of cannabis and manufactured cannabis products for laboratory testing for purposes of this subsection in an amount and manner prescribed by the department, in rules adopted pursuant to this chapter, and with the understanding that state law and its protections do not apply outside of the jurisdictional limits of the State.

(n) [~~A~~] Except for dispensary-to-dispensary sales as provided in subsection (r), a dispensary shall be prohibited from off-premises delivery of cannabis or manufactured cannabis products to a qualifying patient, primary caregiver, qualifying out-of-state patient, or caregiver of a qualifying out-of-state patient.

(o) A dispensary shall not:

(1) Display cannabis or manufactured cannabis products in windows or in public view; or

(2) Post any signage other than a single sign no greater than one thousand six hundred square inches bearing only the business or trade name in text without any pictures or illustrations; provided that if any applicable law or ordinance restricting outdoor

signage is more restrictive, that law or ordinance shall govern.

(p) No cannabis or manufactured cannabis products shall be transported to, from, or within any federal fort or arsenal, national park or forest, any other federal enclave, or any other property possessed or occupied by the federal government.

(q) A dispensary licensed pursuant to this chapter shall be prohibited from providing written certification pursuant to section 329-122 for the use of medical cannabis for any person.

(r) In the event of a crop failure of cannabis plants that could affect patient access, the department may permit a dispensary to purchase medical cannabis and manufactured cannabis products from another dispensary in an amount and manner prescribed by the department by rules adopted pursuant to this chapter and chapter 91; provided that:

(1) The purchasing dispensary documents the failure of the cannabis crops and submits the documentation to the department;

(2) The selling dispensary is permitted by the department to transport cannabis or manufactured cannabis products to another county or another island, for the limited purpose of completing its sale to the purchasing dispensary pursuant to this subsection, in an amount and manner prescribed by the department by

rules adopted pursuant to this chapter and chapter 91 and with the understanding that state law and its protections do not apply outside of the jurisdictional limits of the State; and

(3) Nothing in this subsection shall relieve any dispensary of its responsibilities and obligations under this chapter and chapter 329."

SECTION 11. Section 329D-8, Hawaii Revised Statutes, is amended by amending subsection (a) to read as follows:

"(a) The department shall establish and enforce standards for laboratory-based testing of cannabis and manufactured cannabis products for content, contamination, and consistency; provided that in establishing these standards, the department shall:

(1) Review and take guidance from the testing programs and standards utilized in other jurisdictions;

(2) Consider the impact of the standards on the retail cost of the product to the qualifying patient;

(3) Review and take guidance from the testing programs and standards for pesticides under the regulations of the United States Environmental Protection Agency;

(4) Consider processes that allow any batch of cannabis or manufactured cannabis products that fails testing standards to be remediated and manufactured as long as

any final cannabis or manufactured cannabis product passes testing standards;

(5) For the testing for microbiological impurities, consider the benefits of organically grown cannabis that features the use of bacteria in lieu of pesticides; and

[~~(5)~~] (6) Include permission for qualifying patients and primary caregivers to obtain testing services directly from certified laboratories on the island where the qualifying patient and primary caregiver reside."

SECTION 12. Section 329D-10, Hawaii Revised Statutes, is amended to read as follows:

"**§329D-10 Types of manufactured cannabis products.** (a) The types of medical cannabis products that may be manufactured and distributed pursuant to this chapter shall be limited to:

(1) Capsules;

(2) Lozenges;

(3) Pills;

(4) Oils and oil extracts;

(5) Tinctures;

(6) Ointments and skin lotions;

(7) Transdermal patches;

(8) Pre-filled and sealed containers used to aerosolize and deliver cannabis orally, such as with an inhaler

or nebulizer; provided that containers need not be manufactured by the licensed dispensary but shall be filled with cannabis, cannabis oils, or cannabis extracts manufactured by the licensed dispensary; shall not contain nicotine, tobacco-related products, or any other non-cannabis derived products; and shall be designed to be used with devices used to provide safe pulmonary administration of manufactured cannabis products;

(9) Devices that provide safe pulmonary administration; provided that:

(A) The heating element of the device, if any, is made of inert materials such as glass, ceramic, or stainless steel, and not of plastic or rubber;

(B) The device is distributed solely for use with single-use, pre-filled, tamper-resistant, sealed containers that do not contain nicotine or other tobacco products;

(C) The device is used to aerosolize and deliver cannabis by inhalation, such as an inhaler, medical-grade nebulizer, or other similar medical grade volitization device;

(D) There is a temperature control on the device that is regulated to prevent the combustion of cannabis oil; and

(E) The device need not be manufactured by the licensed dispensary; [~~and~~]

(10) Edible cannabis products;

(11) Cannabidiol products; and

(12) Other products as specified by the department.

(b) As used in this section[~~, "lozenge"~~]:

"Lozenge" means a small tablet manufactured in a manner to allow for the dissolving of its medicinal or therapeutic component slowly in the mouth.

"Edible cannabis products" means food products intended for human consumption that are infused with any cannabinoid extracted from the cannabis plant as regulated by administrative rules of the department.

"Cannabidiol products" means any products derived from the cannabis sativa which contain cannabidiol, including cannabidiol derived from hemp as defined in the Agriculture Improvement Act of 2018, P.L. 115-334."

SECTION 13. This Act does not affect rights and duties that matured, penalties that were incurred, and proceedings that were begun before its effective date.

SECTION 14. Statutory material to be repealed is bracketed and stricken. New statutory material is underscored.

SECTION 15. This Act shall take effect upon its approval.

INTRODUCED BY: _____

Report Title:
Department of Health; Cannabis; Cannabidiol Products; Naturopathic Physician; License; Dispensary

Description:
Allows naturopathic physicians and physician assistants to provide written certification for qualifying patients. Allows licensed dispensaries to have up to two additional manufacturing or processing facilities separate from their production facilities. Provides a process for the voluntary or involuntary sale or transfer of an individual dispensary license. Allows retail dispensaries to operate on state and federal holidays. Allows a licensed dispensary to purchase medical cannabis or manufactured cannabis products from another licensed dispensary, with department approval, in the event of a crop failure. Allows remediation of any cannabis batch that fails laboratory testing standards as long as any final product passes such standards. Allows licensed retail dispensaries to sell edible cannabis and cannabidiol products.