JOSH GREEN, M.D. GOVERNOR OF HAWAII KE KIA'ÄINA O KA MOKU'ÄINA 'O HAWAI'I



KENNETH S. FINK, M.D., M.G.A, M.P.H DIRECTOR OF HEALTH KA LUNA HO'OKELE

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

Testimony COMMENTING on HB1482 RELATED TO CONTROLLED SUBSTANCES

REPRESENTATIVE SCOT Z. MATAYOSHI, CHAIR HOUSE COMMITTEE ON CONSUMER PROTECTION & COMMERCE

Hearing Date/Time: February 5, 2025, 2:00 PM

Room # 329

- 1 **Fiscal Implications:** The Department of Health ("Department") requests that this measure be
- 2 considered as a vehicle to provide this needed funding so long as it does not supplant the
- 3 priorities and requests outlined in the Governors executive budget request.
- 4 **Department Position:** The Department offers comments on amendments to section 328G-1
- 5 found in this measure.
- 6 Department Testimony: The Office of Medical Cannabis Control and Regulation provides the
- 7 following testimony on behalf of the Department.
- 8 The Department offers comments on this measure which seek to amend the definitions of
- 9 "Cannabis", "Artificially derived cannabinoid", and "Manufactured hemp product" in section
- 10 328G-1 to include any synthetic substance enumerated in section 329-14(g).
- 11 Currently, no approved manufactured hemp product may contain synthetic or artificial
- 12 cannabinoids. Under HRS §328G-1, an "artificial cannabinoid" is defined as any cannabinoid
- 13 that has been chemically converted from a hemp extract, such as delta-8 tetrahydrocannabinol
- 14 (THC) derived from cannabidiol (CBD) extracted from hemp. "Synthetic cannabinoid" refers to
- 15 compounds created from non-hemp sources, such as algae or yeast.

1	The b	ill amends HRS chapter 328G to prohibit any of the "synthetic substances enumerated in
2	sectio	n 329-14(g)" (Page 2, lines 15-17; Page 3, lines 9-10; Page 4, lines 2-3). However,
3	incorp	porating the term "synthetic" into hemp regulations could create confusion, as "synthetic
4	canna	binoid" is already defined in existing law. Alternatively, removing the word "synthetic"
5	could	inadvertently ban all cannabinoids listed in section 329-14(g).
6	The Department supports efforts to enhance consumer protection and public safety by	
7	clarifying the prohibition on synthetic and artificial cannabinoids like delta-8 THC. To achieve	
8	this, the Department recommends specific amendments that ensure artificial cannabinoids	
9	remai	n prohibited while allowing non-intoxicating, hemp-derived cannabinoids to remain
10	availa	ble.
11	Offered Amendments:	
12	1.	Remove the word "synthetic" from page 2, lines 15-17, page 3, lines 9-10, and page 4,
13		lines 2-3.
14	2.	Replace the wording on page 2, line 12 through page 3, line 3, with:
15		""Artificially derived cannabinoid" means a chemical substance, including any of
16		the substances enumerated in section 329-14(g), that is created by a chemical
17		reaction that changes the molecular structure of any chemical substance derived
18		from the plant genus cannabis. "Artificially derived cannabinoid" does not
19		include:
20		(1) A naturally occurring chemical substance that is separated from the plant
21		genus cannabis by a chemical or mechanical extraction process; or
22		(2) Cannabinoids that are produced by decarboxylation from naturally occurring
23		cannabinoid acid without the use of a chemical catalyst."
24	3.	Replace the wording on page 3, line 13 through page 4, line 6, with:

1	""Manufactured hemp product" means a product created by processing, as
2	defined in this chapter, that:
3	(1) Is either:
4	(A) Intended to be consumed orally to supplement the human or animal diet in
5	tablet, capsule, powder, softgel, gelcap, or liquid form (e.g., hemp oil); or
6	(B) In a form for topical application to the skin or hair;
7	(2) Does not include any living hemp plants, viable seeds, leaf materials, [or]
8	floral materials, synthetic or artificial cannabinoids; and
9	(3) Includes any other product specified by the department pursuant to section
10	328G-4(a)(7)."
11	

12 Thank you for the opportunity to testify on this measure.



ON THE FOLLOWING MEASURE:

H.B. NO. 1482, RELATING TO CONTROLLED SUBSTANCES.

BEFORE THE:

HOUSE COMMITTEE ON CONSUMER PROTECTION COMMERCE

DATE: Wednesday, February 5, 2025 TIME: 2:00 p.m.

LOCATION: State Capitol, Room 329

TESTIFIER(S): Anne E. Lopez, Attorney General, or Andrew Goff, Deputy Attorney General

Chair Matayoshi and Members of the Committee:

The Department of the Attorney General (Department) offers the following comments on this bill.

The purposes of the bill are to: (1) amend schedule I of the Uniform Controlled Substances Act (CSA) to clarify that delta-8 tetrahydrocannabinol (THC) is a schedule 1 controlled substance, and (2) amend the definitions of "artificially derived cannabis", "cannabis", and "manufactured hemp product" in chapter 328G, Hawaii Revised Statutes (HRS), to prohibit all forms of cannabinoids classified as schedule 1 controlled substances.

The Department notes that the proposed amendments could conflict with existing hemp laws and create confusion about what constitutes a legal hemp product. Currently, a manufactured hemp product (MHP) may be sold in Hawaii if it is in an allowable form and complies with the cannabinoid restrictions found in the hemp rules, chapter 11-37, Hawaii Administrative Rules (HAR). *See generally* chapter 328G, HRS. Additionally, a MHP is prohibited from containing any artificially derived cannabinoid or synthetic cannabinoid. *See* section 328G-3(g). **Artificially derived cannabinoid** is defined as a chemical substance that is created through a chemical reaction that changes the molecular structure of any chemical substance derived from the plant genus cannabis. *See* section 328G-1. This includes any delta-8 THC created by chemically altering a natural cannabinoid, such as cannabidiol (CBD). In contrast, a

Testimony of the Department of the Attorney General Thirty-Third Legislature, 2025 Page 2 of 3

synthetic cannabinoid is defined to include cannabinoids created from chemicals or biological agents that are not derived from the hemp plant, such as algae or yeast. *Id.*

The bill amends the hemp law to prohibit any of the "synthetic substances enumerated in section 329-14(g)." Page 2, lines 15-17, page 3, lines 9-10, and page 4, lines 2-3. However, this could create inconsistencies with the existing term "synthetic cannabinoid" and create confusion over what is prohibited. To avoid this confusion, we recommend removing the word "synthetic" from the amendments on page 3, lines 9-10, and page 4, lines 2-3. As explained below, we recommend deleting the proposed provision on page 2, lines 15-17.

Additionally, to prevent unintended restrictions on all cannabinoids from hemp products, we recommend the following revisions:

 To clarify that chemically converted cannabinoids, including delta-8 THC, are classified as artificially derived cannabinoids, we recommend replacing page 2, line 12, through page 3, line 3, with following amendment to the definition of "artificially derived cannabinoid":

""Artificially derived cannabinoid" means a chemical substance, including any of the substances enumerated in section <u>329-14(g)</u>, that is created by a chemical reaction that changes the molecular structure of any chemical substance derived from the plant genus cannabis. "Artificially derived cannabinoid" does not include:

- A naturally occurring chemical substance that is separated from the plant genus cannabis by a chemical or mechanical extraction process; or
- (2) Cannabinoids that are produced by decarboxylation from naturally occurring cannabinoid acid without the use of a chemical catalyst."
- 2. To clarify that all synthetic cannabinoids are prohibited from a manufactured hemp product, we recommend replacing page 3, line 13, through page 4,

line 6, with the following amendment to the definition of "manufactured hemp product":

"Manufactured hemp product" means a product created by processing, as defined in this chapter, that:

- (1) Is either:
 - (A) Intended to be consumed orally to supplement the human or animal diet in tablet, capsule, powder, softgel, gelcap, or liquid form (e.g., hemp oil); or
 - (B) In a form for topical application to the skin or hair;
- (2) Does not include any living hemp plants, viable seeds, leaf materials, [or] floral materials[;], or synthetic <u>cannabinoids</u>; and
- (3) Includes any other product specified by the department pursuant to section 328G-4(a)(7)."

We respectfully ask the Committee to pass the bill with the recommended amendments. Thank you for the opportunity to provide comments.

DEPARTMENT OF THE PROSECUTING ATTORNEY KA 'OIHANA O KA LOIO HO'OPI'I CITY AND COUNTY OF HONOLULU

ALII PLACE 1060 RICHARDS STREET • HONOLULU, HAWAI'I 96813 PHONE: (808) 768-7400 • FAX: (808) 768-7515 • WEBSITE: www.honoluluprosecutor.org

STEVEN S. ALM PROSECUTING ATTORNEY LOIO HO'OPI'I



THOMAS J. BRADY FIRST DEPUTY PROSECUTING ATTORNEY HOPE MUA LOIO HO'OPI'I

THE HONORABLE, CHAIR SCOT Z. MATAYOSHI HOUSE COMMITTEE ON CONSUMER PROTECTION & COMMERCE Thirty-Third State Legislature Regular Session of 2025 State of Hawai`i

February 5, 2025

RE: H.B. 1482; RELATING TO CONTROLLED SUBSTANCES.

Chair Matayoshi, Vice-Chair Chun and members of the House Committee on Consumer Protection & Commerce, the Department of the Prosecuting Attorney of the City and County of Honolulu ("Department") submits the following testimony in <u>support</u> of H.B. 1482.

The Department supports the purpose of this bill which is to include all forms of cannabinoids classified as schedule I under the Uniform Controlled Substances Act. This bill is necessary to protect consumers against products that are currently unregulated yet contain levels of Delta-8-tetrahydrocannabinol ("Delta-8 THC) and other intoxicating cannabinoids. Including all forms of cannabinoids will assist regulators in enforcing laws to protect our community.

For the foregoing reasons, the Department of the Prosecuting Attorney of the City and County of Honolulu **<u>supports</u>** the passage of H.B. 1482. Thank you for the opportunity to testify on this matter.

LATE *Testimony submitted late may not be considered by the/Committee for decision making purposes. KA 'OIHANA MĀKA'I O HONOLULU

CITY AND COUNTY OF HONOLULU

801 SOUTH BERETANIA STREET • HONOLULU, HAWAI'I 96813 TELEPHONE: (808) 529-3111 • WEBSITE: <u>www.honolulupd.org</u>

RICK BLANGIARDI MAYOR *MEIA*



February 5, 2025

ARTHUR J. LOGAN CHIEF *KAHU MĀKA'I*

KEITH K. HORIKAWA RADE K. VANIC DEPUTY CHIEFS HOPE LUNA NUI MĂKA'I



OUR REFERENCE JP-HR

The Honorable Scot Z. Matayoshi, Chair and Members Committee on Consumer Protection and Commerce House of Representatives 415 South Beretania Street, Room 329 Honolulu, Hawai'i 96813

Dear Chair Matayoshi and Members:

SUBJECT: House Bill No. 1482, Relating to Controlled Substances

I am Jerome Pacarro, Captain of the Narcotics/Vice Division of the Honolulu Police Department (HPD), City and County of Honolulu.

The HPD supports House Bill No. 1482, Relating to Controlled Substances.

The HPD supports legislation aimed at amending the definitions of "artificially derived cannabis," "cannabis," and "manufactured hemp product" under the hemp processors law. This amendment would include all forms of cannabinoids classified as Schedule I under the Uniform Controlled Substances Act.

Delta-8 tetrahydrocannabinol has not been evaluated or approved by the United States Food and Drug Administration (FDA). The FDA has reported that products containing Delta-8 tetrahydrocannabinol are marketed in ways that could pose a risk to public health.

The HPD urges you to support House Bill No. 1482, Relating to Controlled Substances. Thank you for the opportunity to testify.

APPROVED:

Sincerely,

Arthur J. Logan Chief of Police Jerome Pacarro, Captain Narcotics/Vice Division

Serving With Integrity, Respect, Fairness, and the Aloha Spirit

- To: Representative Scot Matayoshi, Chair Representative Cory Chun, Vice-Chair Members of the House Consumer Protection & Commerce Committee
- Fr: TY Cheng on behalf of Aloha Green Apothecary.

Re: Testimony In Support on House Bill (HB) 1482

RELATING TO CONTROLLED SUBSTANCES

For purposes of the hemp processors law, amends the definitions of "artificially derived cannabis", "cannabis", and "manufactured hemp product" to include all forms of cannabinoids classified as schedule I under the Uniform Controlled Substances Act.

Dear Chair Matayoshi, Vice-Chair Chun and Members of the Committee:

Aloha Green Apothecary ("Aloha"), a state-licensed medical cannabis dispensary operating on Oahu, respectfully submits this testimony in support of HB1482, which amends the definitions of controlled substances to include Delta-8 THC artificially synthesized from hemp-derived CBD.

As a licensed dispensary, Aloha wishes to highlight that Delta-8 THC, when naturally occurring in cannabis or hemp plants, is not harmful. In fact, our dispensary offers products containing naturally occurring Delta-8 THC, which is present due to variations in cannabis strains and manufacturing processes.

The primary concern with Delta-8 THC arises from its artificial synthesis using residual chemicals (e.g., acids) to convert non-euphoric hemp-derived CBD into euphoric Delta-8 THC. While hemp manufacturers capitalize on the legal protections of CBD under the Farm Bill to produce Delta-8 THC, these artificially synthesized products often lack regulatory oversight, particularly regarding the presence of harmful residual chemicals. Unlike hemp products, medical cannabis products in Hawaii are rigorously tested by third-party laboratories under the supervision of the Department of Health.

Aloha believes Delta-8 THC should not be banned outright, as it shows potential for therapeutic benefits, including relief from pain, anxiety, depression, and cancer-related symptoms.¹

However, we support HB1482's approach to specifically prohibit chemically synthesized Delta-8 THC derived from CBD while allowing naturally occurring Delta-8 THC, which poses no known health risks.²

HB1482 also appropriately recognizes that Delta-8 THC may be produced inadvertently during common cannabis extraction processes, such as decarboxylation. This process uses heat to convert naturally occurring THCA into Delta-9 THC, but prolonged

¹ <u>https://jcannabisresearch.biomedcentral.com/articles/10.1186/s42238-021-00115-8</u>

² https://www.webmd.com/mental-health/addiction/what-is-delta-8

exposure to higher temperatures can result in the formation of Delta-8 THC. Both Delta-8 and Delta-9 THC are isomers with similar structures, differing only in the location of a double bond on the carbon chain.³

In conclusion, Aloha supports the regulation of artificially synthesized Delta-8 THC to protect public health while ensuring access to naturally occurring Delta-8 THC in medical cannabis products. With proper oversight, regulation and enforcement, we can address safety concerns without stifling innovation or patient access to beneficial treatments.

Thank you for the opportunity to testify. I am available to answer any questions.

³ <u>https://www.cannaspecialists.org/delta_8_thc_and_delta_9_thc_what_s_the_difference</u>



To:	Representative Scott Matayoshi, Chair Representative Corey Chun, Vice Chair Members of the House Committee of Consumer Protection
Fr:	Karlyn Laulusa, Chief Executive Officer, Noa Botanicals
Re:	Testimony with Comments of House Bill (HB) 1482
Measure Title Report Title:	: RELATING TO CANNABIS. Hemp Products; Uniform Controlled Substances Act; Schedule I; Cannabinoids; Delta 8 Tetrahydrocannabinol
Description:	For purposes of the hemp processors law, amends the definitions of "artificially derived cannabis", "cannabis", and "manufactured hemp product" to include all forms of cannabinoids classified as schedule I under the Uniform Controlled Substances Act.

Aloha Chair Matayoshi, Vice-Chair Chun, and members of the committee,

My name is Karlyn Laulusa and I'm the Chief Executive Officer at Noa Botanicals, a medical licensee on the island of Oahu. I stand in strong support of HB1482.

I'd like to reinforce that hemp and cannabis are the same plant and the only way to tell the difference between the two is to test the product. The same could be said for all the manufactured products that are available at over forty (40) unlicensed retail locations island wide that sell cannabis labeled as hemp, without the need for a medical card.

Majority of the products will list cannabinoids other than THC as a cover. However, testing has proved that the products are indeed cannabis with higher potencies than what is allowed in a medical dispensary. Unfortunately, the state currently has no rules or regulations for testing hemp flower or vape cartridges because it is supposed to be illegal.

- These products come from out of state as overproduction of cannabis that is purposefully mislabeled to skirt the law and then shipped to Hawaii for resale.
- Regulation related to hemp has been split between the Department of Agriculture and the Department of Health, complicating potential enforcement and requiring coordination with the Attorneys General, Honolulu Police Department and the Narcotics Enforcement Division.



The extreme danger posed by these mislabeled products is that there are no established safety requirements. Without any safety requirements the consumer does not know what they are consuming or where it came from. The products will also come with fraudulent test results that create a false sense of security.

This bill aims to create a safe, regulated cannabis industry while closing the many loopholes and points of confusion caused by the illicit black market.

Thank you for the opportunity to provide testimony.

Aloha, Karlyn Laulusa



DATE: February 4, 2025

Representative Scot Matayoshi
Chair, Committee on Consumer Protection & Commerce

Representative Cory Chun Vice Chair, Committee on Consumer Protection & Commerce

FROM: Mihoko Ito

RE: H.B. 1482 – Related to Controlled Substances Hearing Date: Wednesday, February 5, 2025 at 2:00 p.m. Conference Room: 329

Dear Chair Matayoshi, Vice Chair Chun, and members of the Committee:

We submit this testimony on behalf of Cure Oahu in **support** of **H.B. 1482**, Related to Controlled Substances, which amends the definitions of "artificially derived cannabis", "cannabis", and "manufactured hemp product" to include all forms of cannabinoids classified as schedule I under the Uniform Controlled Substances Act.

Delta-8 THC is an artificially derived product that can be extracted from hemp products and have psychoactive effects. Under the Hawaii controlled substances law, Delta 8 THC is technically already included in HRS 329-14(g)(1) under the synonymous term "Delta 6 cis or trans tetrahydrocannabinol." However, this bill proposes to make it explicit that Delta-8 THC is part of the controlled substances schedule and is not permitted to be manufactured from hemp products.

Delta 8 THC products are unregulated and can pose health and safety risks due to the lack of oversight over this substance. This measure closes a loophole that has allowed synthetically derived Delta 8 THC products to proliferate in the state.

For these reasons, we support this measure and ask that the Committee pass H.B.1482. Thank you for the opportunity to submit testimony in support of this measure.



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

TESTIMONY ON HOUSE BILL 1482 RELATED TO CONTROLLED SUBSTANCES

Clifton Otto, MD

House Committee on Consumer Protection & Commerce Representative Scot Z. Matayoshi, Chair Representative Cory M. Chun, Vice Chair

> Wednesday, February 5, 2025 – 2:00 PM State Capitol, Room 329 & Videoconference

The amendment in this bill to the definition of cannabis under <u>HRS 328G-1</u> would conflict with the definition of cannabis under HRS 329-121:

By amending the definition of "cannabis" to read: ""Cannabis" means the genus of the flowering plant in the family Cannabaceae. For the purpose of this chapter, cannabis refers to any form of the plant where the delta-9 tetrahydrocannabinol concentration on a dry weight basis has not yet been determined. <u>"Cannabis" includes any of the synthetic substances enumerated in section 329-14(g)</u>."

§329-121 Definitions. As used in this part:

"Cannabis" shall have the same meaning as "marijuana" and "marijuana concentrate" as provided in sections 329-1 and 712-1240.

§329-1 Definitions. As used in this chapter:

"Marijuana" [*Repeal and reenactment on July 1, 2027. L 2023, c 263, §15.*] means all parts of the plant (genus) Cannabis whether growing or not; the seeds thereof, the resin extracted from any part of the plant; and every compound, manufacture, salt, derivative, mixture, or preparation of the plant, its seeds, or resin.

Marijuana shall not include:

(1) The mature stalks of the plant (genus) Cannabis, fiber produced from the stalks, oil, or cake made from the seeds of the plant, any other compound, manufacture, salt, derivative, mixture, or preparation of the mature stalks (except the resin extracted

therefrom), fiber, oil, or cake, or the sterilized seed of the plant that is incapable of germination;

(2) Hemp that is in the possession, custody, or control of an individual or entity that holds a license to produce hemp, issued by the Secretary of the United States Department of Agriculture pursuant to title 7 United States Code section 1639q;

(3) Hemp that is in the possession, custody, or control of a person or entity that is authorized under state law to process hemp; and

(4) A product containing or derived from hemp that:

(A) Does not include any living hemp plants, viable seeds, leaf materials, or floral materials; and

(B) Has a delta-9-tetrahydrocannabinol concentration of not more than 0.3 per cent on a dry weight basis, as measured post-decarboxylation or other similarly reliable methods.

Also, please make sure that Delta-9-THCO and Delta-8-THCO are currently <u>listed</u> in Hawaii's Schedule I list of controlled substances:

TESTIMONY ON HOUSE BILL 1482 RELATING TO MEDICAL MARIJUANA by Keith Kamita

COMMITTEE ON CONSUMER PROTECTION & COMMERCE Representative Scot Z. Matayoshi, Chair Representative Cory M. Chun, Vice Chair Wednesday, February 5, 2025, 14:00 PM State Capitol, Conference Room 329

Chair Matayoshi, Vice Chair Chun and Members of the Committee:

I strongly support House Bill 1482 amends the definition of with amends the definition of "artificially derived cannabinoid" in Section 328G1 HRS by adding to the definition "Artificially derived cannabinoid" includes any of the synthetic substances enumerated in section 329-14 (g)" and amending section 329-14(g) to clarify that the substance Delta 8 cis or trans tetrahydrocannabinol, and their optical isomers are included in this section.

I would like to recommend a amendment to HB1482 by deleting the term "synthetic" in Section 2, to read as follows:

SECTION 2. Section 328G-1, Hawaii Revised Statutes, is amended as follows:

1. By amending the definition of "artificially derived cannabinoid" to read:

"Artificially derived cannabinoid" means a chemical substance that is created by a chemical reaction that changes the molecular structure of any chemical substance derived from the plant genus cannabis. <u>"Artificially derived cannabinoid" includes any of the substances enumerated in section 329-14(g).</u> "Artificially derived cannabinoid" does not include:

(1) A naturally occurring chemical substance that is separated from the plant genus cannabis by a chemical or mechanical extraction process; or

(2) Cannabinoids that are produced by decarboxylation from naturally occurring cannabinoid acid without the use of a chemical catalyst."

2. By amending the definition of "cannabis" to read:

"Cannabis" means the genus of the flowering plant in the family Cannabaceae. For the purpose of this chapter, cannabis refers to any form of the plant where the delta-9 tetrahydrocannabinol concentration on a dry weight basis has not yet been determined. <u>"Cannabis" includes any of the substances enumerated in section 329-14(g).</u>"

3. By amending the definition of "manufactured hemp product" to read:

"Manufactured hemp product" means a product created by processing, as defined in this chapter, that:

(1) Is either:

- (A) Intended to be consumed orally to supplement the human or animal diet in tablet, capsule, powder, softgel, gelcap, or liquid form (e.g., hemp oil); or
- (B) In a form for topical application to the skin or hair;

(2) Does not include any living hemp plants, viable seeds, leaf materials, or floral materials[;] or any of the substances enumerated in section 329-14(g); and

(3) Includes any other product specified by the department pursuant to section 328G-4(a)(7)."

The reason for this amendment is because Delta-8 THC (or delta-8 tetrahydrocannabinol) is a naturally occurring chemical compound, called a cannabinoid, that's found in traces in hemp and cannabis (marijuana) plants.

The Department of Health has reported that Delta-8 THC has psychoactive and intoxicating effects, similar to delta-9 THC (i.e., the component responsible for the "high" people may experience from using cannabis). FDA is concerned that these products likely expose consumers to much higher levels of the substance than are naturally occurring in hemp cannabis raw extracts. And that Delta-8 THC products often involve the use of potentially harmful chemicals to create the concentrations of delta-8 THC claimed in the marketplace. Manufacturing delta-8 THC products may occur in uncontrolled or unsanitary settings, which may lead to unsafe contaminants or other potentially harmful substances.

House Bill 1482 also clarifies that Deta 8 is already listed in Section 329-14(g) HRS by adding clarifying language:

" (1) Tetrahydrocannabinols; meaning tetrahydrocannabinols naturally contained in a plant of the genus Cannabis (cannabis plant), as well as synthetic equivalents of the substances contained in the plant, or in the resinous extractives of Cannabis, sp. or synthetic substances, derivatives, and their isomers with similar chemical structure and pharmacological activity to those substances contained in the plant, such as the following: Delta 1 cis or trans tetrahydrocannabinol, and their optical isomers; Delta 6 cis or trans tetrahydrocannabinol, and their optical isomers[;] (other names: Delta 8 cis or trans tetrahydrocannabinol, and their optical isomers); and Delta 3,4 cis or trans-tetrahydrocannabinol, and its optical isomers (since nomenclature of these substances is not internationally standardized, compounds of these structures, regardless of numerical designation of atomic positions, are covered);"

Under current law in section 329-14 (g)(1) of the Hawaii Revised Statutes (HRS), Delta 8 THC, including its optical isomers is already scheduled but not clear in our current law. The controlled substances known as "Delta 8 tetrahydrocannabinol and their optical isomers" as this proposal seeks to regulate is already scheduled in section 329-14 (g)(1), but is listed in that section as, "Delta 6 cis or trans tetrahydrocannabinol, and their optical isomers." This is because the names "Delta 6 cis or trans tetrahydrocannabinol, and their optical isomers" and "Delta 8 cis or trans tetrahydrocannabinol, and their optical isomers" and "Delta 8 cis or trans tetrahydrocannabinol, and their optical isomers" and "Delta 8 cis or trans tetrahydrocannabinol, and their optical isomers" and such substances is not standardized. The Hawaii Uniform Controlled Substances Act accounts for this in the tetrahydrocannabinol section of law by currently providing: "...(since nomenclature of these substances is not internationally standardized, compounds of these structures, regardless of numerical designation of atomic positions, are covered)"

There is potential for confusion because there are different numbering systems used to describe the position of this double bond. Under the *dibenzopyran* numbering system widely used today, the major form of THC is called Δ^9 -THC, while the minor form is called Δ^8 -THC. Under the alternate terpene numbering system, these same compounds are called Δ^1 -THC and Δ^6 -THC, respectively.

Hawaii law was written under the terpene system, but today the dibenzopyran numbering system is used. Majority of the states use the dibenzopyran numbering system in their laws today.

Thank you for the opportunity to testify on this measure.

Senate Representative: Michelle N. Kidani House Representative: Elijah Pierick Members of the Consumer Protection & Commerce Committee

Re: Supporting HB1482 Relating to Controlled Substances

I'm Jovelia Repullo. I reside in the Waipahu District of Hawaii. I am in my last semester as a Doctor of Nursing Practice student at the University of Hawaii at Hilo.

I am testifying in supporting HB1482, "Relating to Controlled Substances.". "This bill discusses to include all forms of cannabinoids classified as Scheduled 1 drug under the Uniform Controlled Substance Act."

I support the claim of this bill about the negative impact on society under the influence of marijuana due to the psychoactive effect of the drug. Given that marijuana is a Schedule 1 drug, this means that it has a high potential for abuse according to the Drug Enforcement Agency. When this drug is legalized in the State of Hawaii, there will be more danger that the public will face in addition to the crimes/problems it is already facing. Due to public acceptance, the potential risk will be overlooked. The availability of the product is also increasing, and youth are enticed by pervasive marketing. The potential danger to health among youth users. The study found that the use of cannabis in the young population can damage their developing brain, which can increase psychiatric conditions such as schizophrenia. It can also cause memory and cognitive impairment in young users of cannabis.

Additionally, the report from the United States Centers for Disease Control and Prevention states that the use of cannabis can impair youth's brain memory; learning deficiencies may be permanent. The use of cannabis at a young age is also linked to teen suicide, depression, and social anxiety. It is also related to increased hospitalizations for hallucinations, nausea, and seizures due to pediatric ingestions of cannabis primarily occurring at home.

I raise my testimony against legalizing marijuana due to its dangerous effect on the public and on our younger generation. Incidental ingestion can happen to an unaware child or those families who are consumers of the drug. This can leave any minor child with a long-term negative effect on their health. Families, schools, and communities should be given enough education about the dangerous effects of marijuana on youth's developing brains. Our youth are the future of the next generation. We must advocate and protect them at all costs from all dangerous illicit substances.

Thank you for your time and consideration of my request.

Sincerely,

Jovelia Repullo