



Northwest (HHS Region 10)

PTTTC

Prevention Technology Transfer Center Network
Funded by Substance Abuse and Mental Health Services Administration



Northwest (HHS Region 10)

MHTTC

Mental Health Technology Transfer Center Network
Funded by Substance Abuse and Mental Health Services Administration

The More the Merrier? THC Potency in the Legalization Era

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Michael McDonell, PhD
Liz Wilhelm, CPP
Jacob Delbridge, MPH

December 17, 2020

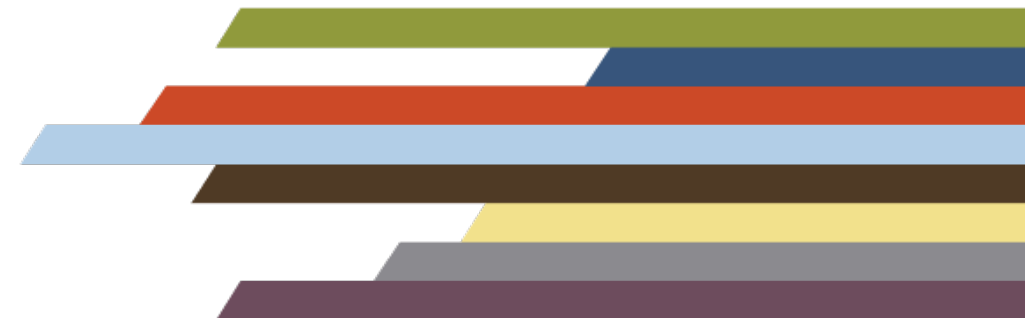
UNIVERSITY of WASHINGTON

ADAI

ALCOHOL &
DRUG ABUSE
INSTITUTE



PREVENTION WORKS IN SEATTLE





WE OFFER



VIRTUAL TRAINING



ONLINE, SELF-PACED
COURSES



LIVE WEBINARS



VIRTUAL LEARNING
COMMUNITIES

OUR GOALS



Accelerate adoption and
implementation of
mental health-related EBPs.



Heighten awareness,
knowledge, and skills of
the workforce.



Foster alliances and address
training needs among
diverse partners.



Ensure availability & delivery
of FREE, publicly available
training and TA.

AREA OF FOCUS Evidence-based practices (EBPs) for psychosis

Including CBT for psychosis (CBTp) & Assertive Community Treatment (ACT)

ADDITIONAL TOPICS OF TRAINING & TECHNICAL ASSISTANCE

Integrated Care | Peer Support | Suicide Prevention | Telehealth | Families
Trauma-Informed Support | Culturally-Responsive Care | Crisis Work



RESPONDING TO THE COVID-19 PANDEMIC



LYDIA CHWASTIAK, MD, MPH
PI & CO-DIRECTOR



CHRISTINA CLAYTON LICSW, CDP
CO-DIRECTOR



WE PROVIDE



NEWSLETTERS



RESOURCES



RESEARCH &
PRACTICE BRIEFS



ON-DEMAND
CONTENT



Northwest (HHS Region 10)

PTTC

Prevention Technology Transfer Center Network
Funded by Substance Abuse and Mental Health Services Administration



The Northwest PTTC is a partnership led by the Social Development Research Group (SDRG) at University of Washington (UW) School of Social Work in collaboration with the Prevention Science Graduate Program at Washington State University (WSU), and the Center for the Application of Substance Abuse Technologies (CASAT) at the University of Nevada, Reno (UNR).

Northwest partnering institutes share a vision to expand the impact of community-activated prevention by equipping the prevention workforce with the power of prevention science.



Prevention Science
Graduate Program
WASHINGTON STATE UNIVERSITY



Disclaimer

The views expressed in this webinar do not necessarily represent the views, policies, and positions of the Substance Abuse and Mental Health Services Administration or the U.S. Department of Health and Human Services.

This webinar is being recorded and archived, and will be available for viewing after the webinar. Please contact the webinar facilitator if you have any concerns or questions.

Developed under SAMHSA Cooperative Agreement # H79SP080995-01

Mark Your Calendars! Upcoming Webinars!



The Roles of Culture and Collaboration
in Preventing Suicide and Substance
Misuse in Indigenous Communities

January 21, 2021

3:00 – 4:00 PM Pacific Time

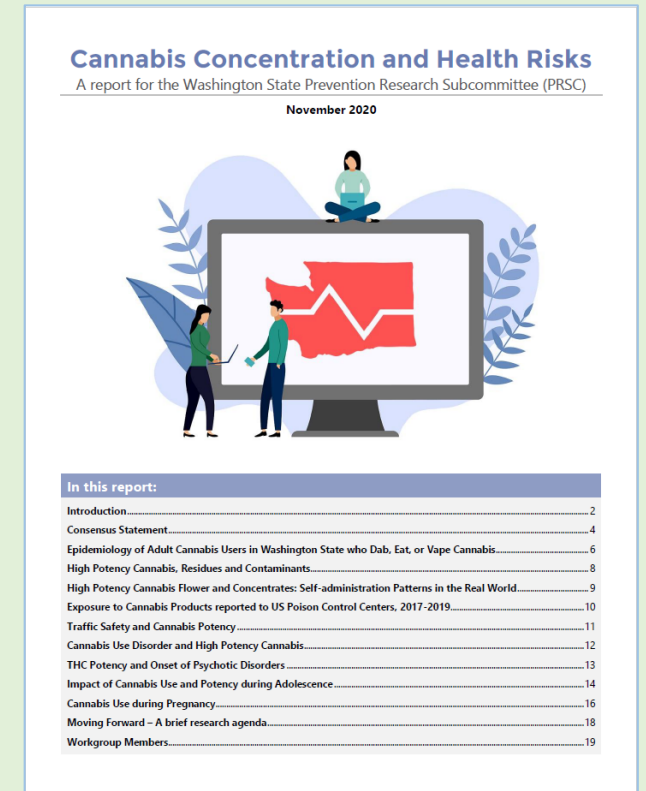
The More the Merrier?

THC Potency in the Legalization Era

Beatriz Carlini, PhD, MPH
Michael McDonell, PhD

Dec 17th, 2020

Cannabis Concentration and Health Risks



Consensus Statement and Report

WA Prevention Research Subcommittee (PRSC) Workgroup

Joint University of Washington and Washington State University Workgroup:

Beatriz Carlini (Chair)
Celestina Barbosa-Leiker
Carrie Cuttler
Julia Dilley
Caislin Firth

Kevin Haggerty
Jason Kilmer
Michael McDonell
Nephi Stella
Denise Walker
Dale Willits

With:

Sara Broschart, *WA State Liquor and Cannabis Board*
Trecia Ehrlich, *WA State Liquor and Cannabis Board*
Kristen Haley, *WA State Department of Health*
Christine Steele, *WA State Health Care Authority,
Division of Behavioral Health & Recovery*
Liz Wilhelm, *Prevention WINS*

The content expressed herein do not reflect the official position of these agencies. No official support or endorsement for the opinions described in this document is intended or should be inferred.

Beatriz Carlini, Caislin Firth, and Sharon Garrett (editors)
Erinn McGraw and Meg Brunner (graphic design)

University of Washington, Alcohol & Drug Abuse Institute

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WASHINGTON

WASHINGTON STATE
 UNIVERSITY

Agenda

- THC concentration and legalization
- Is high potency cannabis more detrimental to health than lower potency cannabis?
- Are marginalized and/or vulnerable populations disproportionately affected by high potency cannabis use?
- Research Context/ Wrap up

Full report and other resources on High THC cannabis:

<https://adai.uw.edu/research/cannabis-research-education/high-potency-cannabis/>



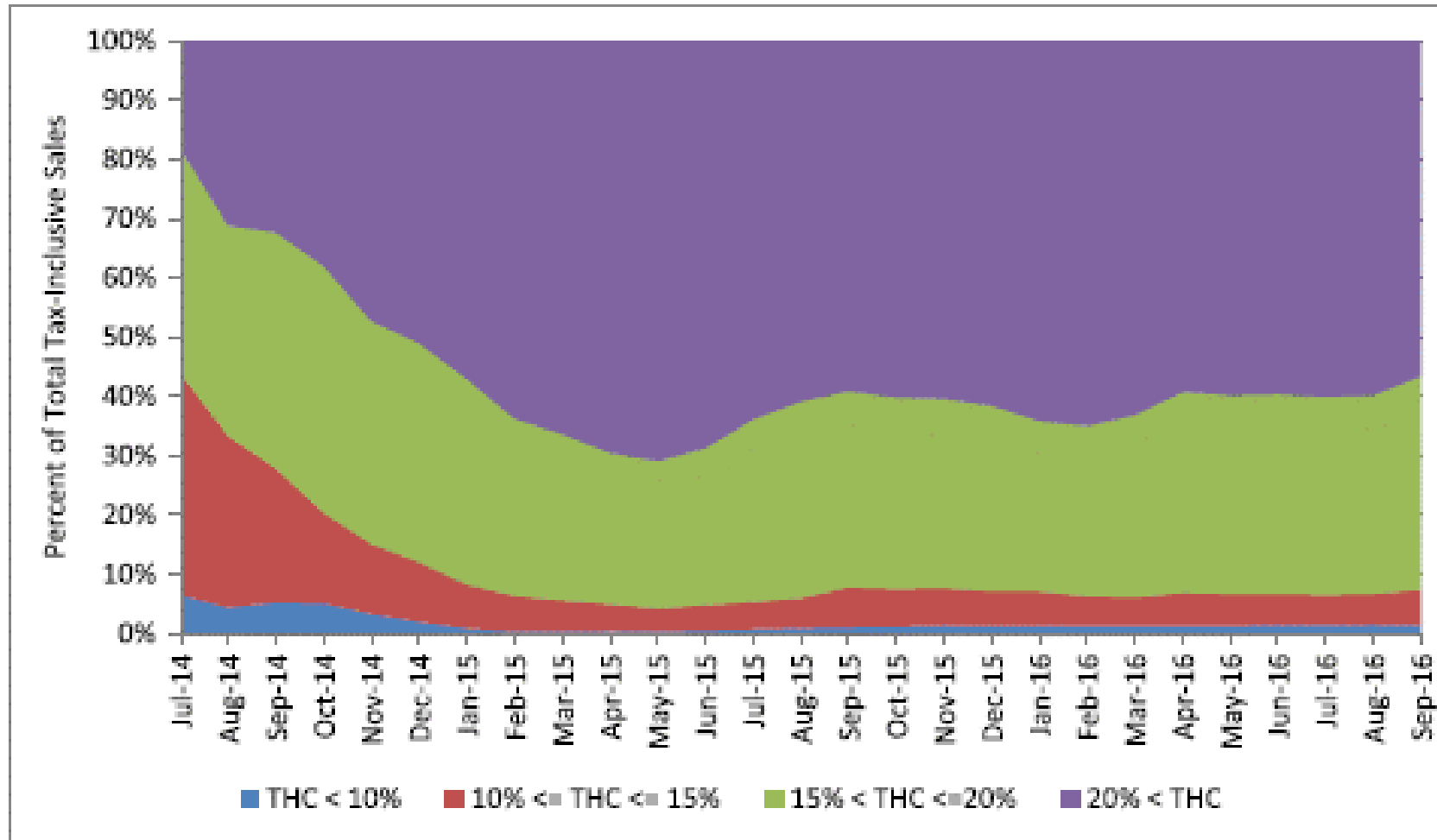


THC concentration and legalization

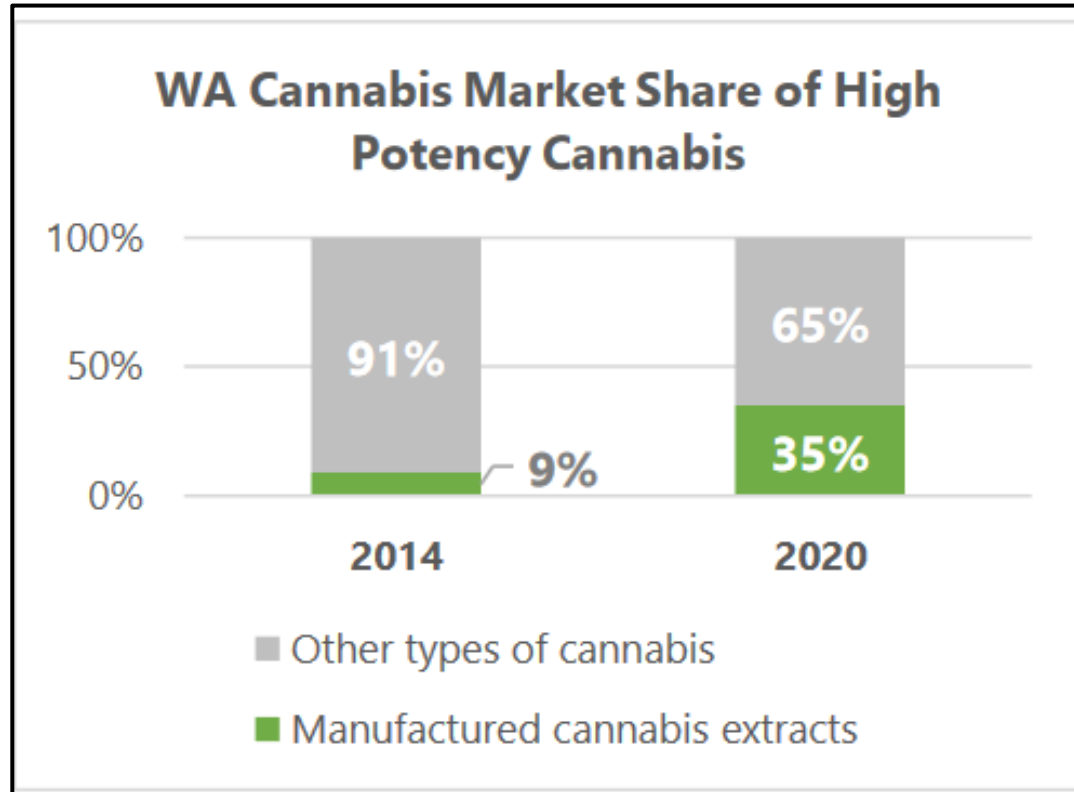
Non-Medical Use
High potency = THC Concentration

THC concentration and legalization

Flower with less than 10% THC has vanished from the WA market



THC concentration and legalization



Manufactured products: 60-90% THC



Sources:

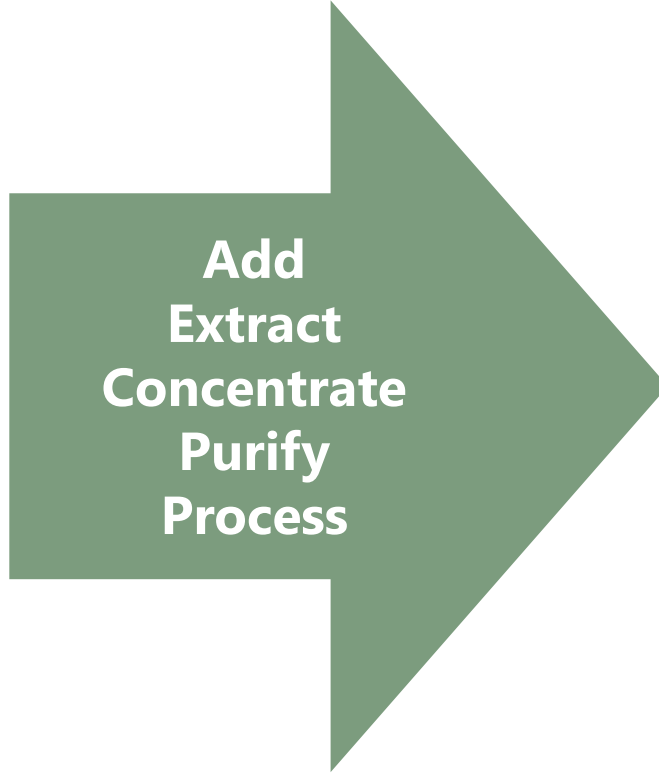
Kilmer, Beau, Steven Davenport, Rosanna Smart, Jonathan P. Caulkins, and Gregory Midgette, After the Grand Opening: Assessing Cannabis Supply and Demand in Washington State. Santa Monica, CA: RAND Corporation, 2019.

https://www.rand.org/pubs/research_reports/RR3138.html.

WA State House Commerce and Gaming Commission work session. Sep 15, 2020. <https://www.twv.org/watch/?eventID=2020091004>



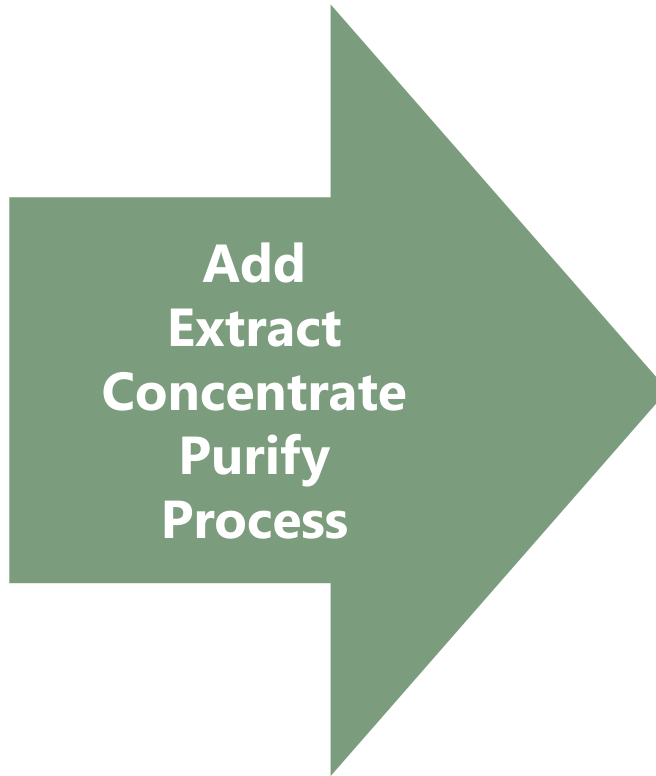
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["GoD"](#) by [Symic](#) is licensed under [CC BY 2.0](#)



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Is high potency cannabis more detrimental to health than lower potency cannabis?

YES, it is

Health Risks and Consequences

Cannabis Concentration and Poison Center Calls



Review by Julia Dilley, PhD

Dilley JA, Brooks-Russell A, Whitehill JM, Graves JM – Manuscript in preparation

Health Risks and Consequences

High-Potency Cannabis Product Exposures Increased Relative to Plant Materials (US, 2017-2019)

Plant materials:

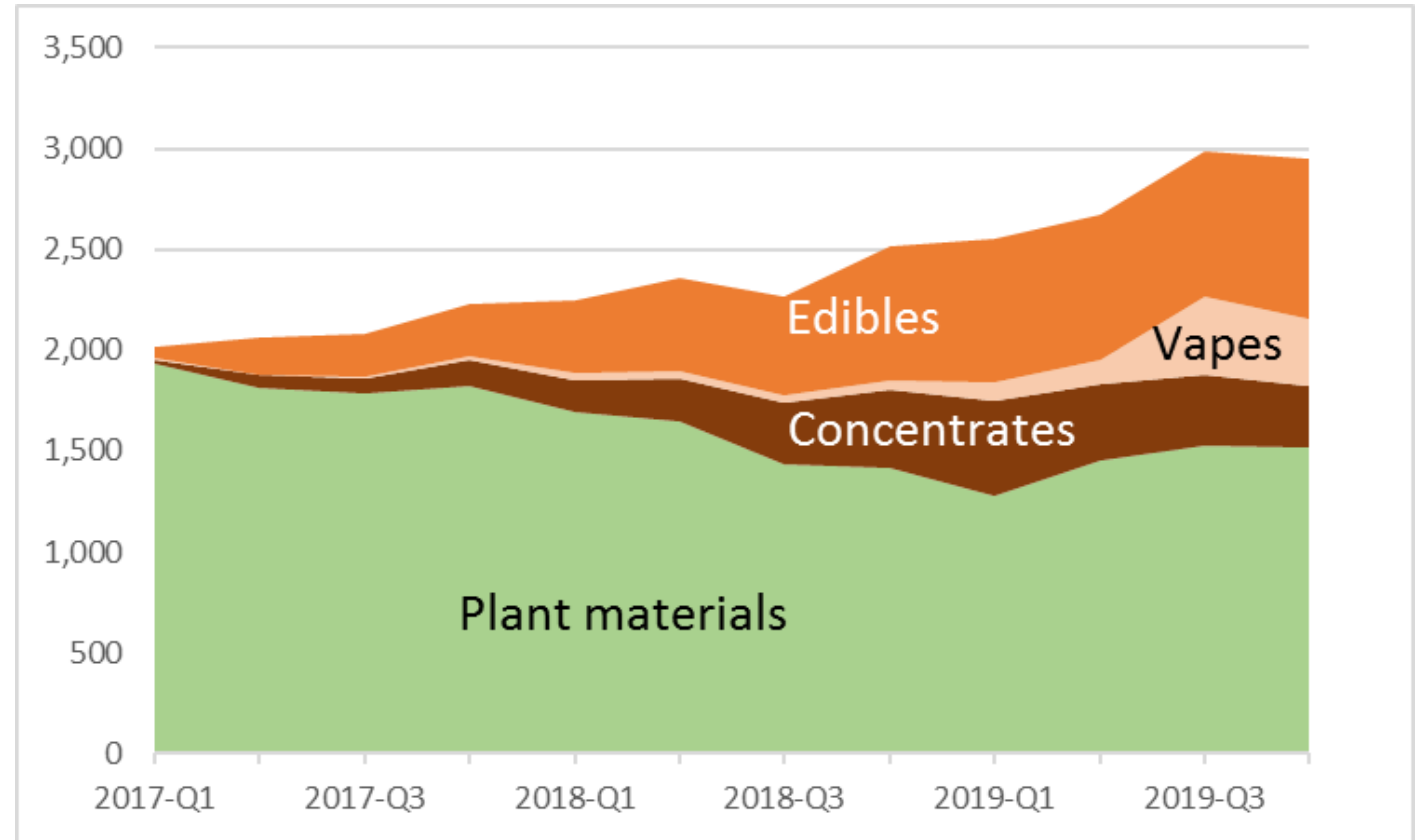
Majority co-use (61%)

9.8% children 11 or younger

Concentrates, edibles and vapes:

Majority cannabis-only (82%)

29.7% children 11 or younger

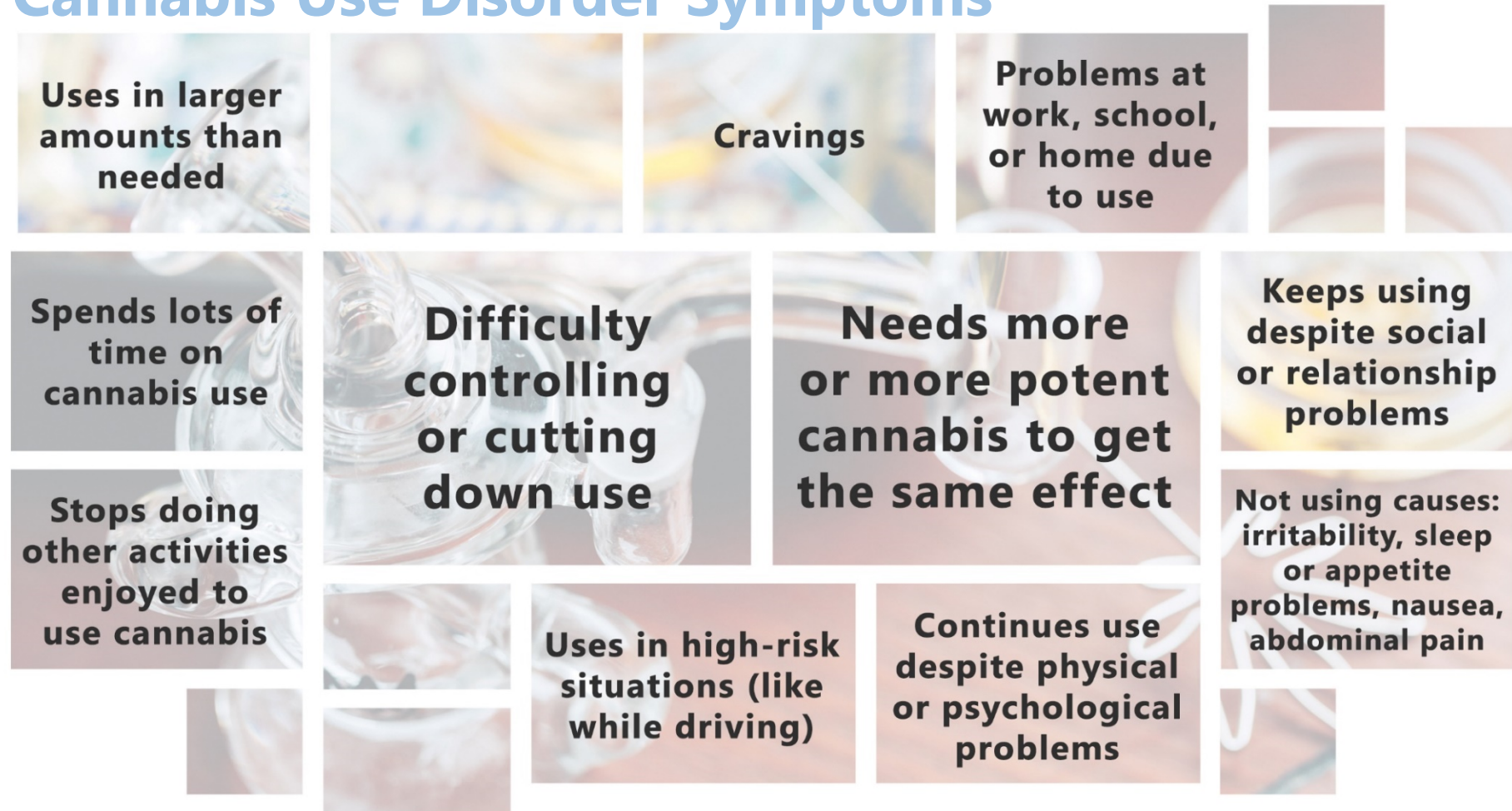


Types of exposures reported to poison centers

Health Risks and Consequences

Cannabis Concentration and Cannabis Use Disorder (CUD)

Cannabis Use Disorder Symptoms



Health Risks and Consequences

Higher potency increases risk of CUD

Takeaway:

Use of cannabis with high THC concentration (or high potency) increases the chances of developing Cannabis Use Disorder (CUD) or addiction to cannabis, particularly among young people.

Context:

- ✓ These studies have been conducted by observing people over time (prospectively or retrospectively.)
- ✓ It is not ethical to conduct studies that randomize people to different concentrations of cannabis to ascertain risk of addiction overtime.

Health Risks and Consequences

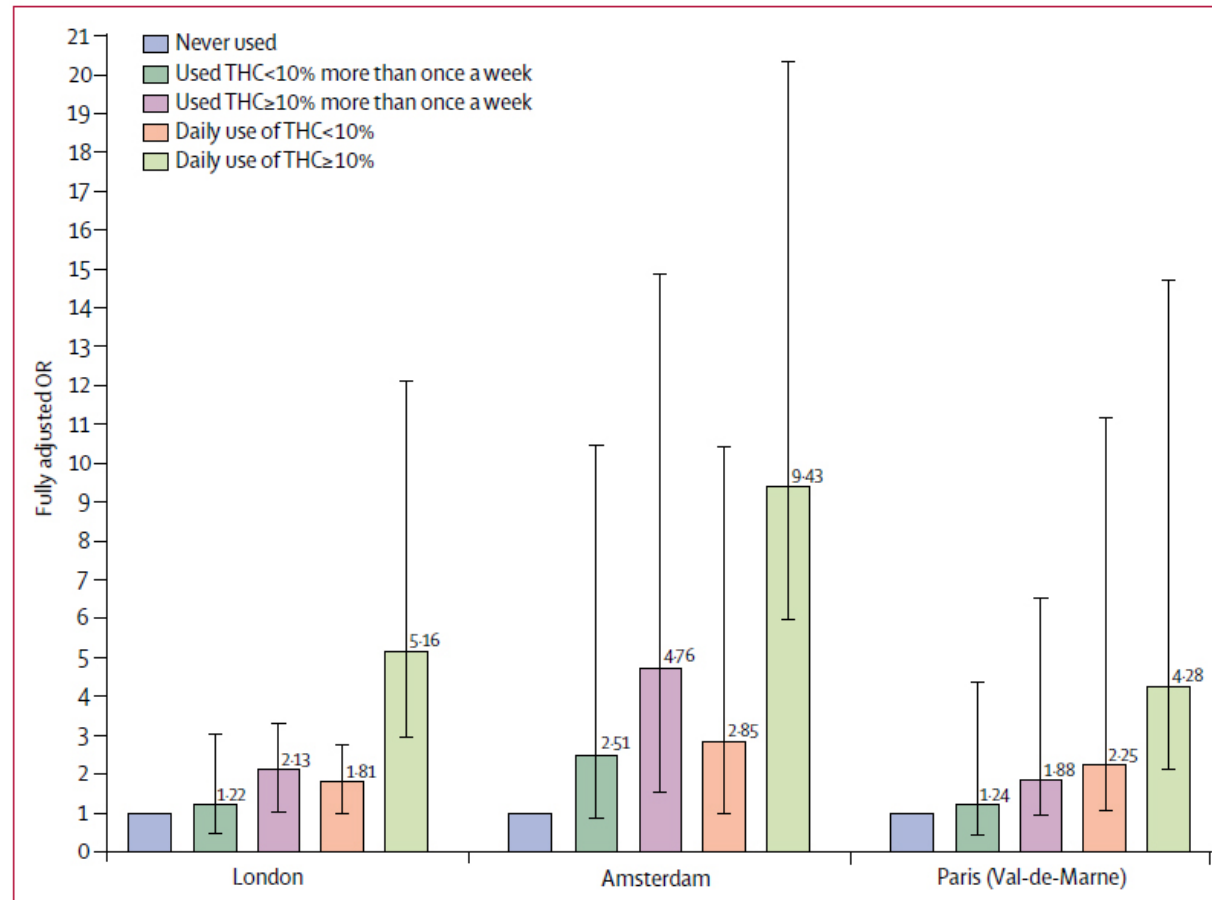


Cannabis Concentration and Psychotic Disorders

Review by Michael McDonell, PhD, Washington State University

Health Risks and Consequences

Odds of Psychotic Disorder



Fully adjusted ORs of psychotic disorders for the combined measure of frequency plus type of cannabis use in three sites. Data are shown for the three sites with the greatest consumption of cannabis: London (201 cases, 230 controls), Amsterdam (96 cases, 101 controls), and Paris (52 cases, 100 controls). Error bars represent 95% CIs. OR=odds ratio.

Health Risks and Consequences

Frequent use of high potency increases risk of a psychotic disorder

Take Away:

Daily cannabis use, particularly of high potency products, increases the risk of developing a psychotic disorder, like schizophrenia, AND earlier onset of symptoms compared to cannabis abstinence.

Daily use of cannabis, particularly high potency cannabis, is associated with increased symptoms of psychosis in people who have a psychotic disorder.

Context:

- ✓ Studies on this topic define high potency cannabis as products with 10% or more THC.
- ✓ There are no published studies investigating the association between products available in US legal market (60%-90% THC) and the onset of first episode psychosis or on increases of symptoms of in those who have a psychotic disorder.

Health Risks and Consequences



Cannabis Concentration and Adolescence

Review by Nephi Stella, PhD, University of Washington

Health Risks and Consequences

Dose-response relationship Negative impact of cannabis use during adolescence

Take Away:

Strong evidence exists on the detrimental impact of THC use during adolescence.

- This impact can be modeled in adolescent rodents, providing an opportunity to study the response of the developing brain and explore treatment approaches.
- Available evidence suggests a dose-response relationship, where negative impacts are higher with highly potent THC and/or more frequent use.

Context:

Human studies suggest that limiting the availability of high-potency cannabis may reduce the number of individuals who develop CUD and the risk of mental health disorders.



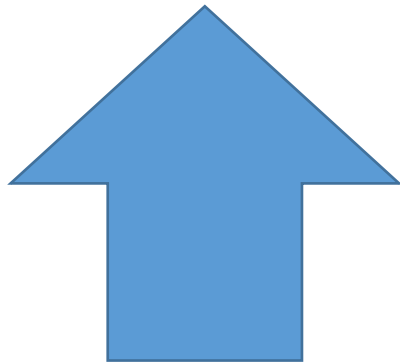
Are vulnerable and marginalized populations disproportionately affected by high potency cannabis use?

YES, they are

Who is Most Affected?

Adolescents and Young Adults

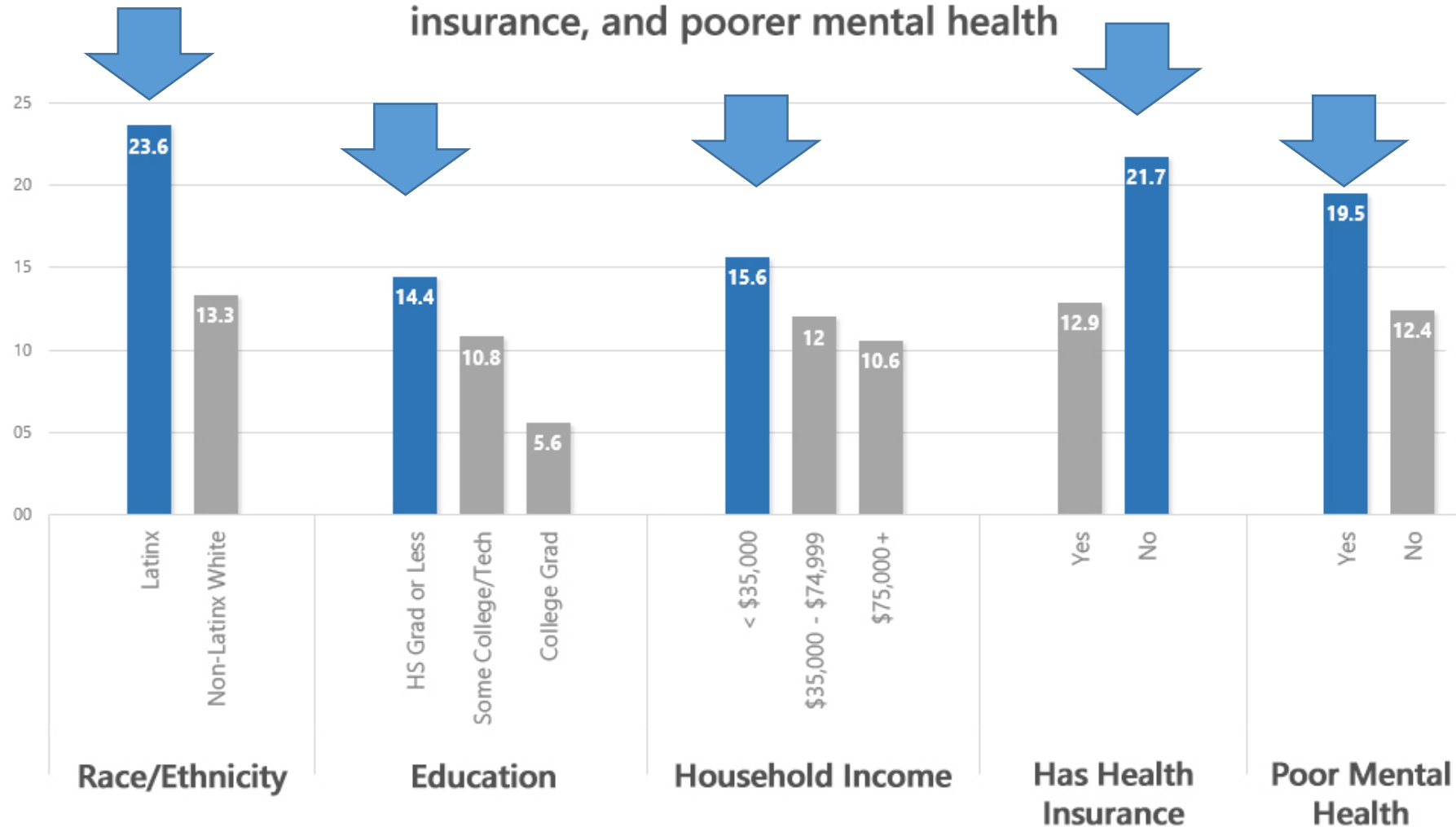
High frequency and High potency interact



- Cannabis Use Disorder
- First Episode Psychosis
- Brain Development

Who is Most Affected? Washington State data

People who dabbled cannabis in the past 30 Days (%) were more likely to be Latinx, have less education, a lower household income, no health insurance, and poorer mental health



Caislin Firth, PhD, University of Washington

Data Source: 2015-2017 WA Department of Health, Behavioral Risk Factor Surveillance System (BRFSS)

Take Home

THC Content in Cannabis Products Contributes to Adverse Health Effects in a Dose-Response Manner

- Increased risk imposed is particularly concerning for young users and those with certain pre-existing mental health conditions.
- Harms are likely to disproportionately affect marginalized populations (low income, minorities)
 - May choose high potency products because of their lower costs, ease and discrete nature of use, glamorization of its use through social media and advertising, and perception of safety.

Full report and other resources on High THC cannabis:

<https://adai.uw.edu/research/cannabis-research-education/high-potency-cannabis/>



Research Context

How alcohol industry actors* used scientific evidence in 214 submissions to government alcohol policy consultations between 2013 and 2017?

- 94% of submissions included at least one instance of **misusing or denying evidence**.
- 91% of submissions denied the effectiveness of evidence-based strategies, most commonly **making unsubstantiated claims about adverse effects of policies** and promoting alternatives without evidence.

Professor Simone Pettigrew, The George Institute for Global Health

- “Governments seeking to develop alcohol policy that optimizes health outcomes for the community may be wise to **treat alcohol industry representations of evidence with extreme caution** and consider limiting the role of industry in alcohol policy development processes.”

<https://ndri.curtin.edu.au/news-events/ndri-news/media-release-submissions-distort-evidence>

(*) Industry actors included alcohol producers and retailers, trade associations, licensed businesses and associated entities who derive commercial benefit from alcohol.

Industry representatives discounted the findings presented:

- Confuse medical use with non-medical use
- Make potency sound more complicated than it is
- Minimize research findings
- Criticizing research designs
- Misinterpret data

Defining “high-potency”

Not all studies use the same definition.

This report included studies that:

- Examined a dose-response relationship between THC content and health outcomes

or

- Recorded adverse events associated with consuming highly concentrated manufactured products



Research Context

Federally, Cannabis is a Schedule I Drug

No access to real world cannabis for research

Randomized Controlled Trials are not viable

Observational Studies

Surveys

Records

Animal Studies

Questions



High Potency Cannabis Products

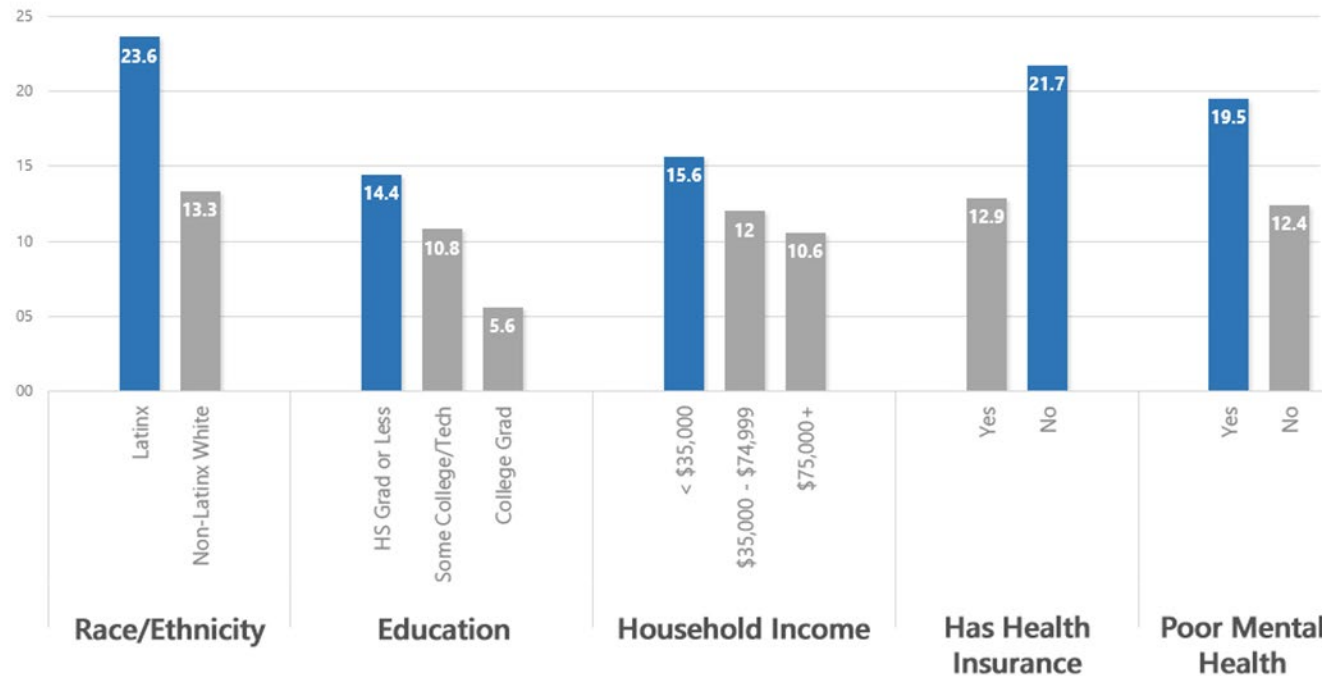
- Highly potent manufactured cannabis products, such as concentrated oils & butters, are available in retail stores throughout WA. Used by “vaping” or “dabbing”
- Cheaper to make and are shelf-stable. Sold for relatively lower cost.
- Contain THC at levels varying from 60-90%. 6-to-9-fold increase over what was not long ago considered “highly potent” (>10%)
- These high potency concentrates now represent 35% of the WA cannabis market, up from 9% in 2014.
- Ten-fold increase in sales of cannabis concentrate products from 2014 to 2017.

Policy Efforts around High Potency Cannabis Products

- No current uniform standard method for determination of potency across testing laboratories in WA
 - trying to develop standardized cannabinoid testing so that it will be consistent across all testing facilities
- 1 adult-use state (VT.) has established a limit on the maximum THC percentage of non-medical cannabis useable flower or concentrates sold at retail
 - Most “limits” are around the amount of mg of THC allowed in a particular edible, tincture, capsule or transdermal
 - Attempted regulatory efforts to limit THC concentration of certain adult-use/non-medical cannabis products: In WA and CO
- ND, NJ, OH, and DE have policies regulating THC concentrations of medical cannabis sold – DE and ND are age-based; NJ and OH are not age-based
- Illinois is the only adult-use state that factors THC concentration into a cannabis excise tax paid by the customer

High potency: Disproportionate impacts

People who dabbled cannabis in the past 30 Days (%) were more likely to be Latinx, have less education, a lower household income, no health insurance, and poorer mental health



High potency: Report on Cannabis Concentration and Health

<https://adai.uw.edu/research/cannabis-research-education/high-potency-cannabis/>

- [Consensus statement and report](#) (pdf)
- [One-pager brief about the report's findings](#) (pdf) (Key takeaways from research for policy considerations)
- [Presentation slides](#) (pptx, 12MB) featuring key points from the report and suitable for a general audience

PREVENTION WORKS IN SEATTLE

So what does this suggest we do?

As community coalitions



- Utilize these resources to create awareness and understanding within your Coalition membership
- Ask what Coalition members want to do and what they need to educate others
- Confirm any data you have that is relevant to the issue
- Create the narrative to support the data
- Construct and share a policy brief with your local story
- “In our community...”

- Correct misinformation
- Share facts
- Know the laws and regulations
- Express concern without shaming, lecturing, or scaring
- Determine boundaries and rules
- Network with other parents – use social media well
- Monitor internet activity and deliveries/mail
- Work with your student’s school personnel
- Report what you find
- Share your concern and stories with policy makers
- “In our community...”

- Share factual information – use social media well
- Express hope and concern
- Learn how to critically analyze legislative bills
- Comment on legislation and policy proposals
- Join hearings with a well-prepared statement
- Passion is important and a logically reasoned argument is powerful
- Lack of strong consistent regulation and availability of high THC products through online purchasing has created a dangerous situation with concerning products for our youth, as well as many adults
- Retail marijuana is a commercial industry

Questions and Discussion

Thank you to all the prevention advocates!

Liz Wilhelm, Prevention WINS Coalition and
WASAVP

lizprevention@gmail.com



Thank you!

Please complete the GPRA for the TTC
that you registered with for this webinar

Northwest PTTC-

<https://ttc-gpra.org/P?s=174918>

Northwest MHTTC-

<https://redcap.iths.org/surveys/?s=4MHNMEX8JR>

