



# The Challenges of Cannabis Legalization – Year 1 Lessons for California Counties

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# Getting it Right from the Start's Mission

To collaboratively develop and test models of optimal cannabis policy with the goal of reducing harms, youth and problem use. Models are based on the best scientific evidence and protection of public health, social equity and safety.



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# Why?

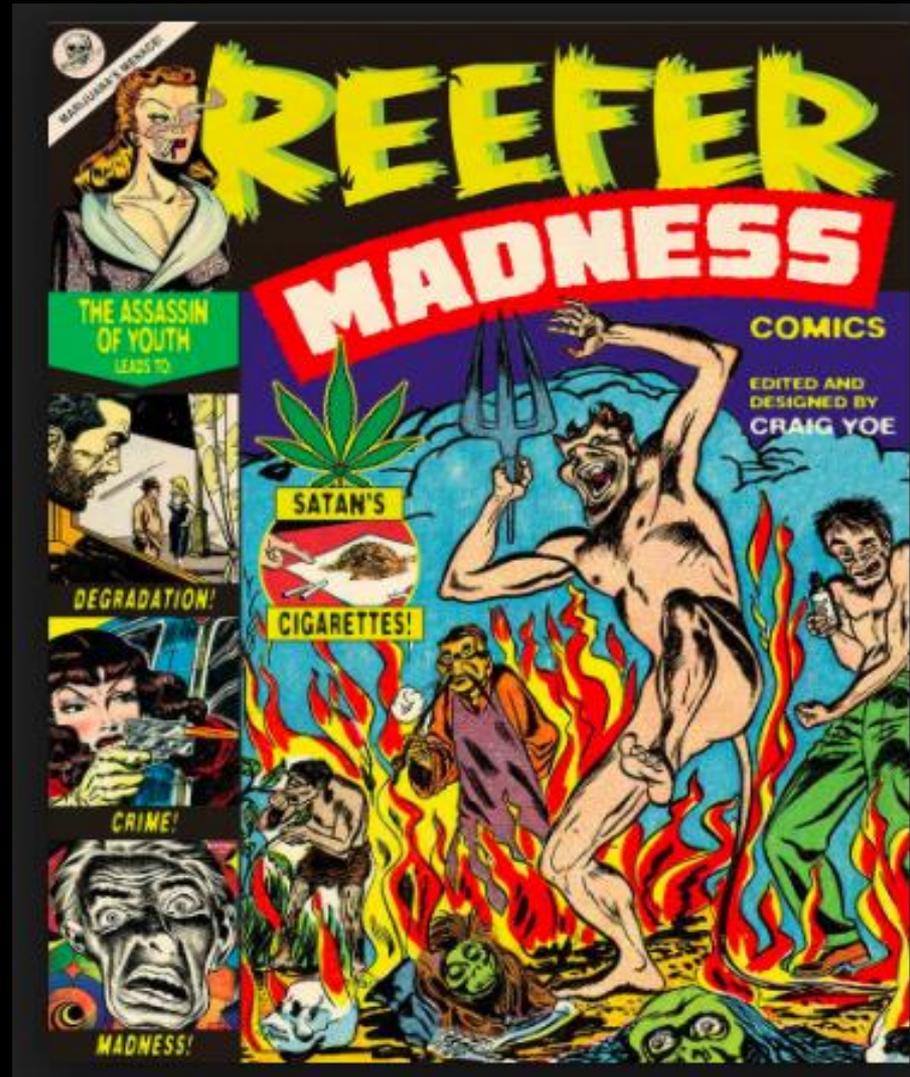
- California's Prop 64 legalizing recreational cannabis
  - Scant attention to public health concerns
  - Leeway to local government to regulate and tax



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# Cannabis - Not



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But Also Not

the best  
thing since

SLICED  
BREAD

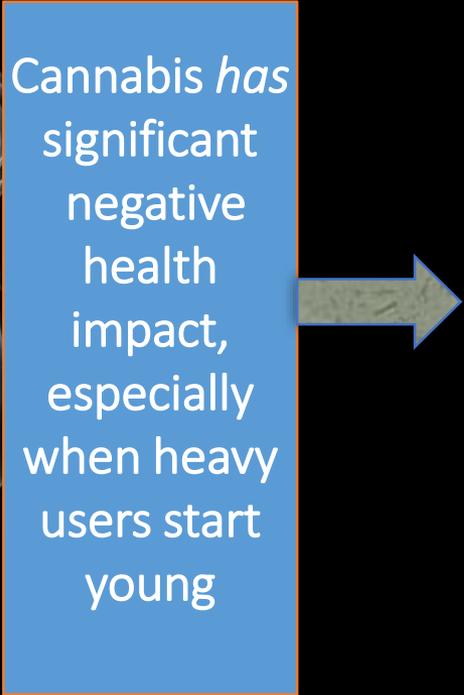


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# Why Worry?

Some proven beneficial uses  
Also evidence of harm:



Cannabis *has* significant negative health impact, especially when heavy users start young

- Low birth weight
- Schizophrenia and psychoses
- Increased motor vehicle crashes
- Respiratory illness
- Problem use associated with early onset of use and frequency

## Growing Evidence:

- Cognitive, academic and social effects, overdose injuries, heart disease and other

Source: National Academies of Science, Engineering, and Medicine, 2017



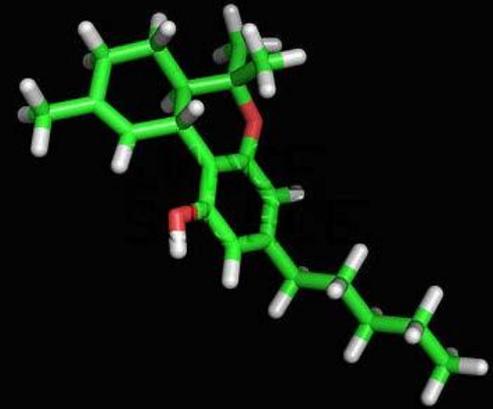
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# Cannabis addiction is real

- Approximately **4.0 million** Americans met criteria for cannabis use disorders in 2015.
- **1.2 million** of first time users in 2016 were between the ages of 12 and 17



**Tetrahydrocannabinol  
(THC) Psychoactive  
Ingredient in Cannabis**

Source: Slide - S. Weiss, NIDA and 2016 National Survey on Drug Use and Health, SAMHSA



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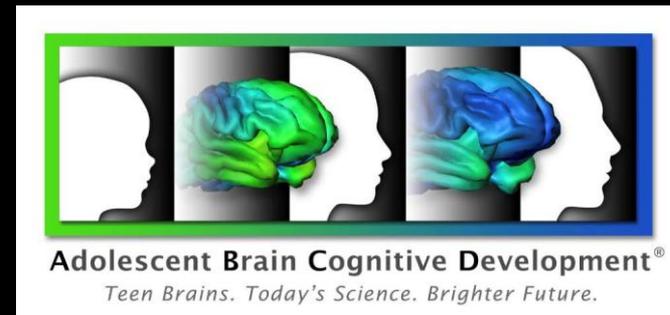
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# Cannabis and Brain Development: The Most Vulnerable Periods are during Pregnancy and Adolescence

Prenatal



Adolescent



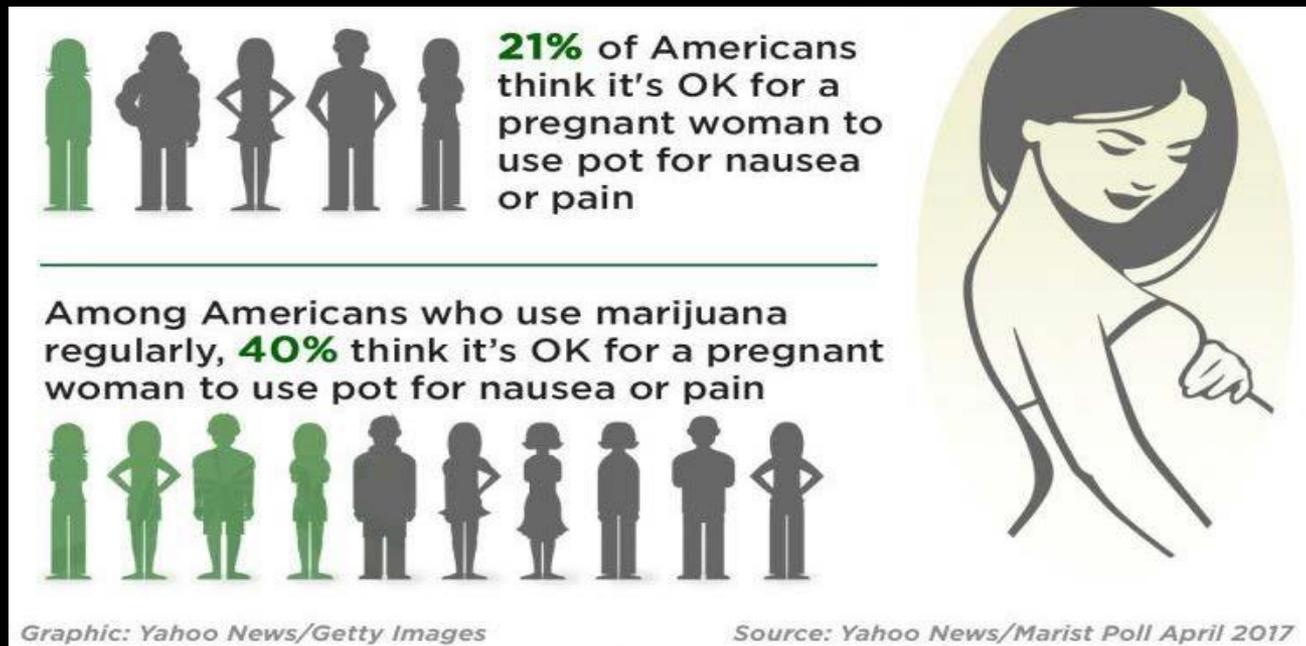
Source: Slide – S. Weiss NIDA



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# Declining Perception of Risk During Pregnancy



Source: Roberson et al. Hawaii J Med Public Health. 2014



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# Popularity and Availability of New High Potency Products



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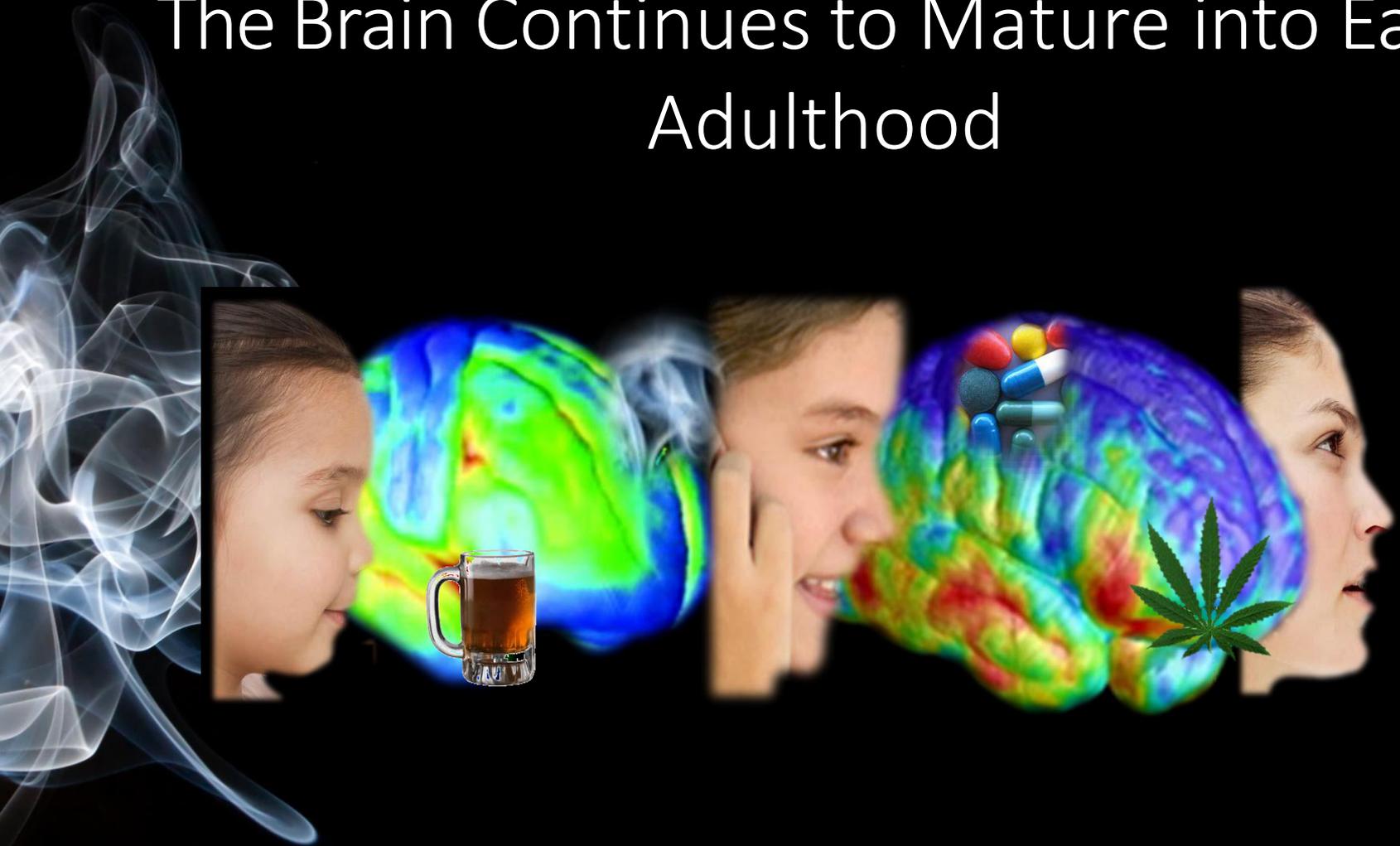
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# Cannabis Use in California Pregnant Women Rises

- From 2009 to 2016, cannabis use among pregnant women increased from 4% to 7%
- 22% of pregnant females younger than 18 years and 19% of pregnant females aged 18 to 24 years screened positive for cannabis use in 2016

Source: Young-Wolff et al, JAMA 2017

# The Brain Continues to Mature into Early Adulthood

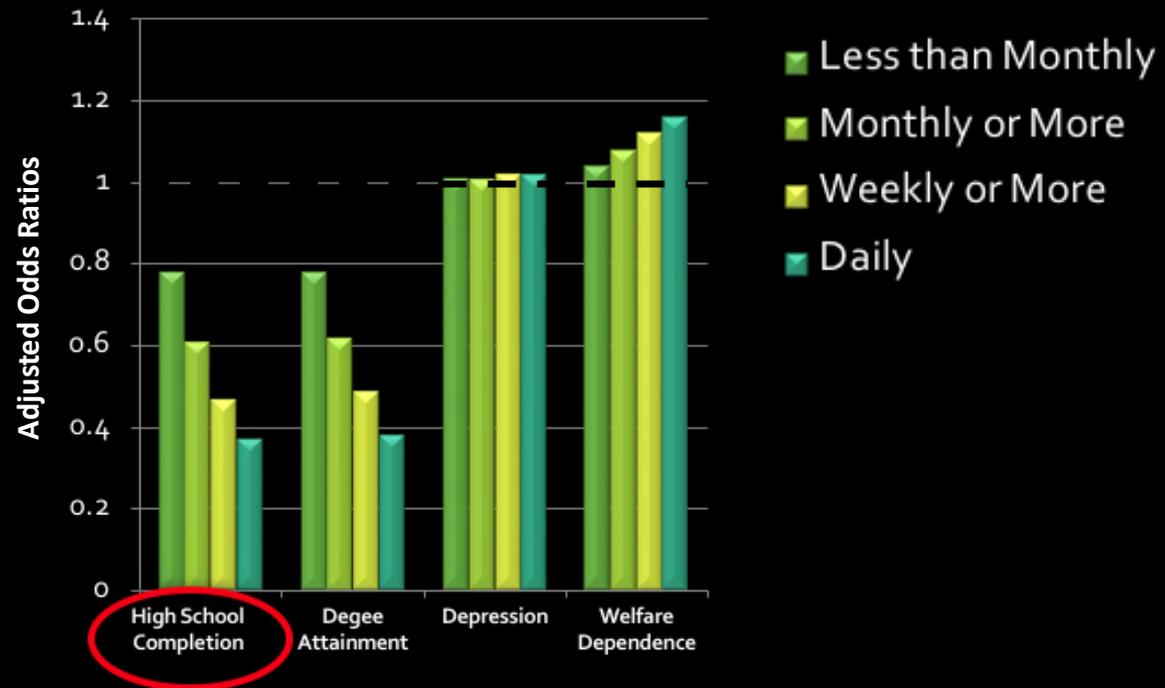


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# Frequency of Cannabis Use Before Age 17 and Adverse Outcomes at 30 years (n=2500-3700)

Consistent and dose-response associations were found between frequency of adolescent cannabis use and adverse outcomes



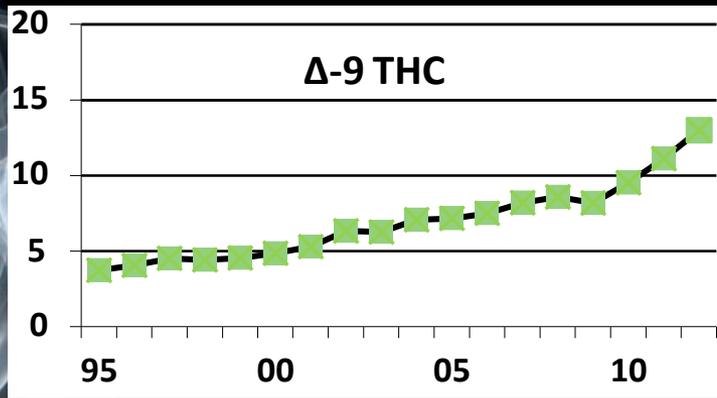
Source: Silins E et al., The Lancet September 2014



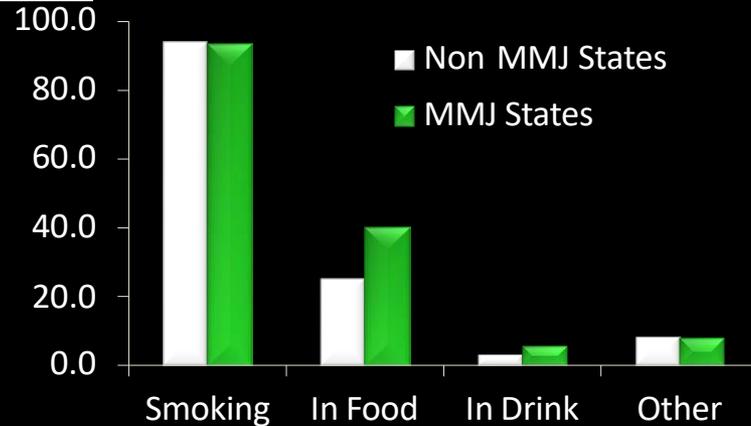
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# Changing Landscape of Increasing Potency and New Routes of Administration

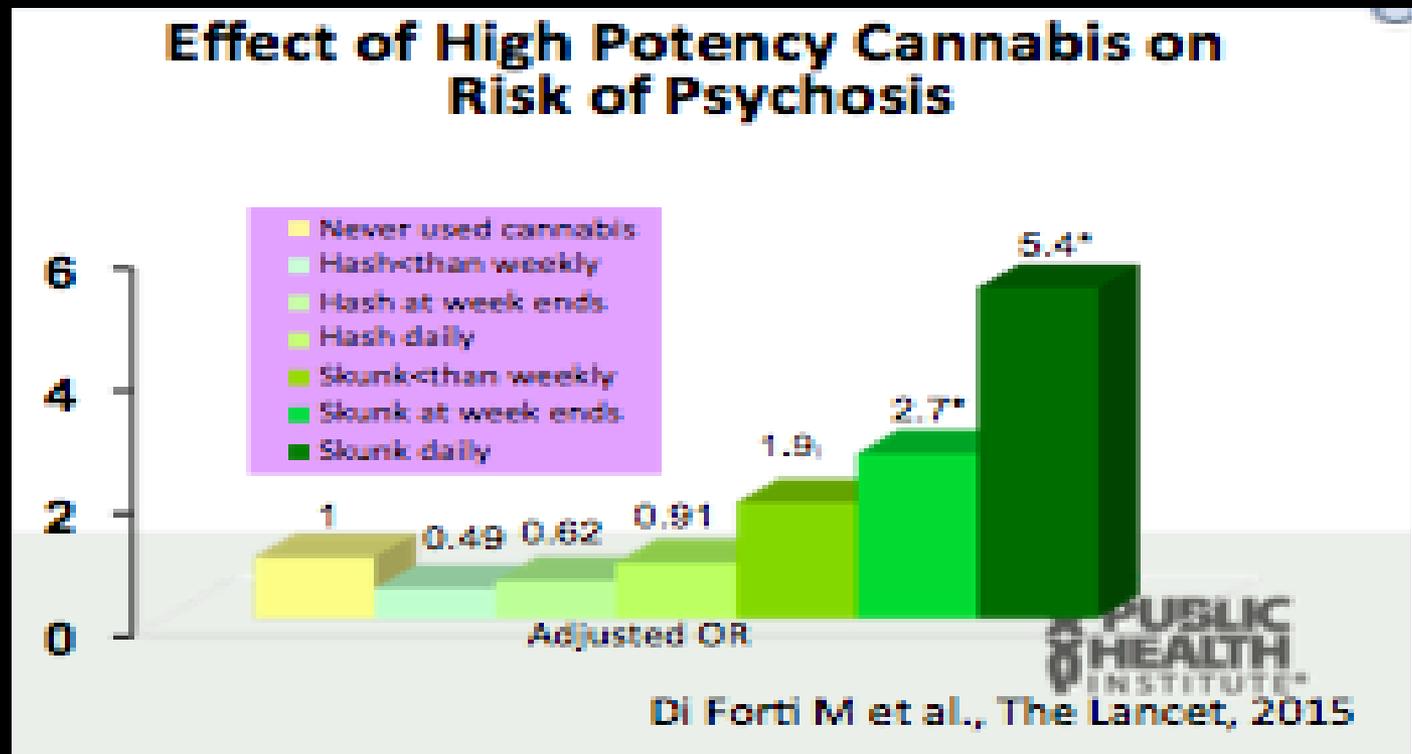


**12<sup>th</sup> grade  
Past Year Users**



SOURCE: University of Mississippi; University of Michigan, 2014 Monitoring the Future Study Slides: S.Weiss NIDA

# Use of High Potency Products Associated with Risk of Psychosis



Source: Slide – S. Weiss NIDA



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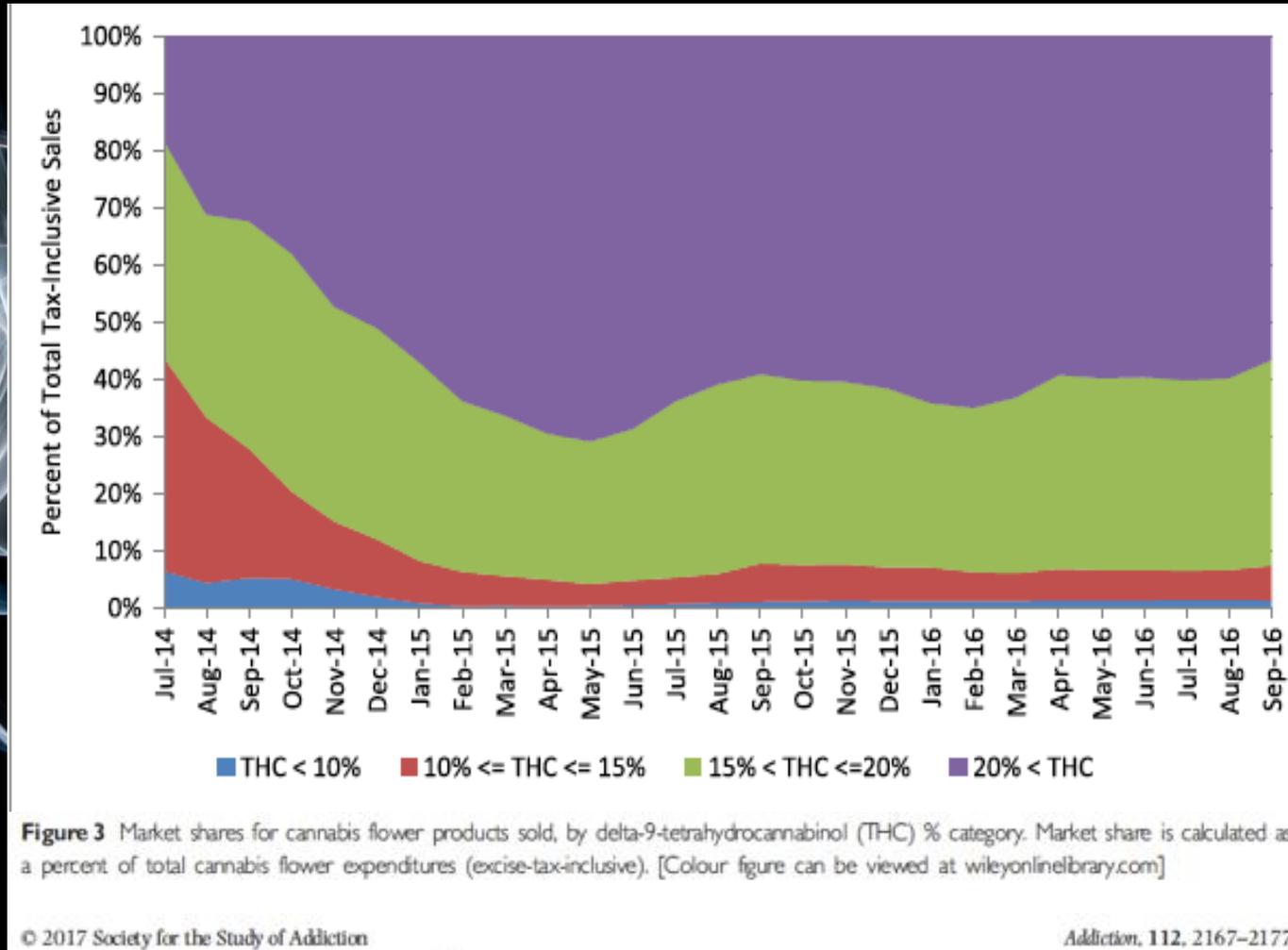
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# Trends in Washington State Post-Legalization

- % Market share of high potency flower with more than 20% THC increased by 48.4% since 2014, now 56.5% of retail expenditures on flower

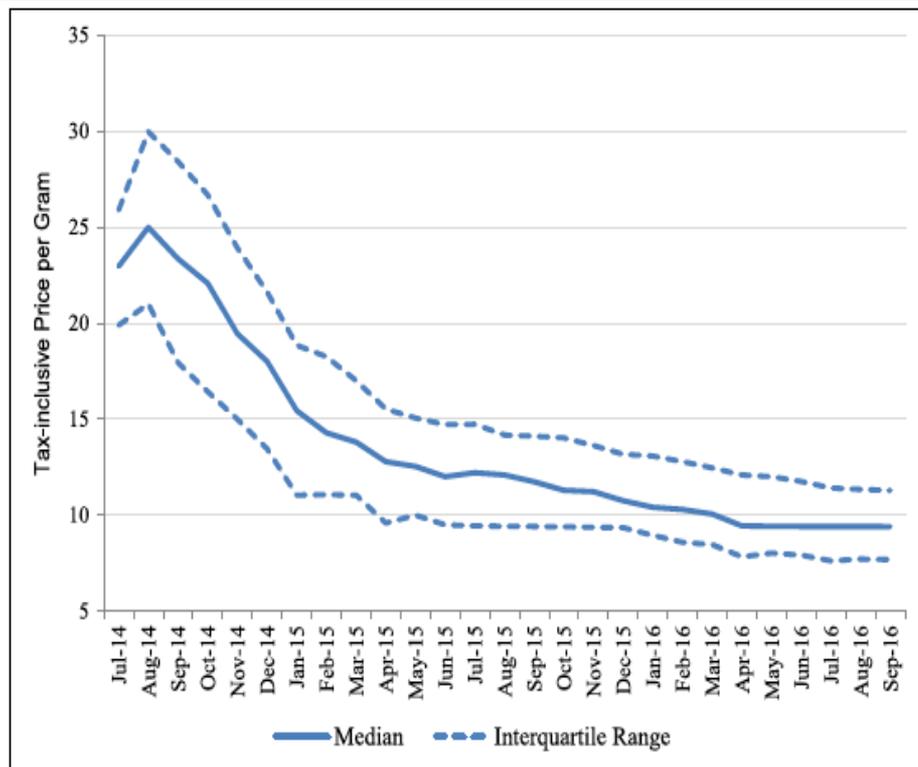
Source: Smart et al, Addiction, 2017

# Rise in Higher Potency Cannabis Flower Post-Legalization; Washington 2014-2016



Source: Smart et al, *Addiction*, 2017

# Rapidly Declining Tax-Inclusive Price for Cannabis Flower Post Legalization Washington 2014-2016



**Figure 4** Trends in median price per gram and price variation for cannabis flower. Dashed lines represent the 25<sup>th</sup> and 75<sup>th</sup> percentiles. [Colour figure can be viewed at [wileyonlinelibrary.com](http://wileyonlinelibrary.com)]

© 2017 Society for the Study of Addiction

*Addiction*, 112, 2167–2177

Source: Smart et al, *Addiction*, 2017

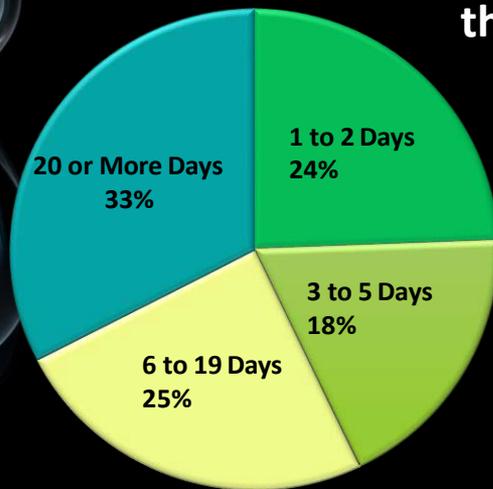


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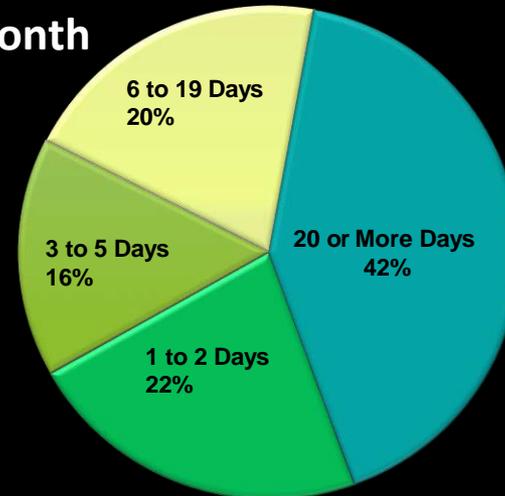
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# Use and Heavy Use Rising: 42% of Current Users are Daily or Almost Daily Users

**Number of Days Used cannabis in  
the Past Month**



**2002**



**2015**

***22.2 Million Past Month Users of Cannabis in 2015***  
***14.6 Million Past Month Users of Cannabis in 2002***

Source: SAMHSA, 2015 National Survey on Drug Use and Health (September 2016)



*The cannabis industry wants us to believe that quality control, testing and pesticide residues will determine health impacts*



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The biggest determinants of health  
impact of legalization in our state  
will be:

*How many people the industry gets  
to use cannabis, how intensely, and at  
what age*

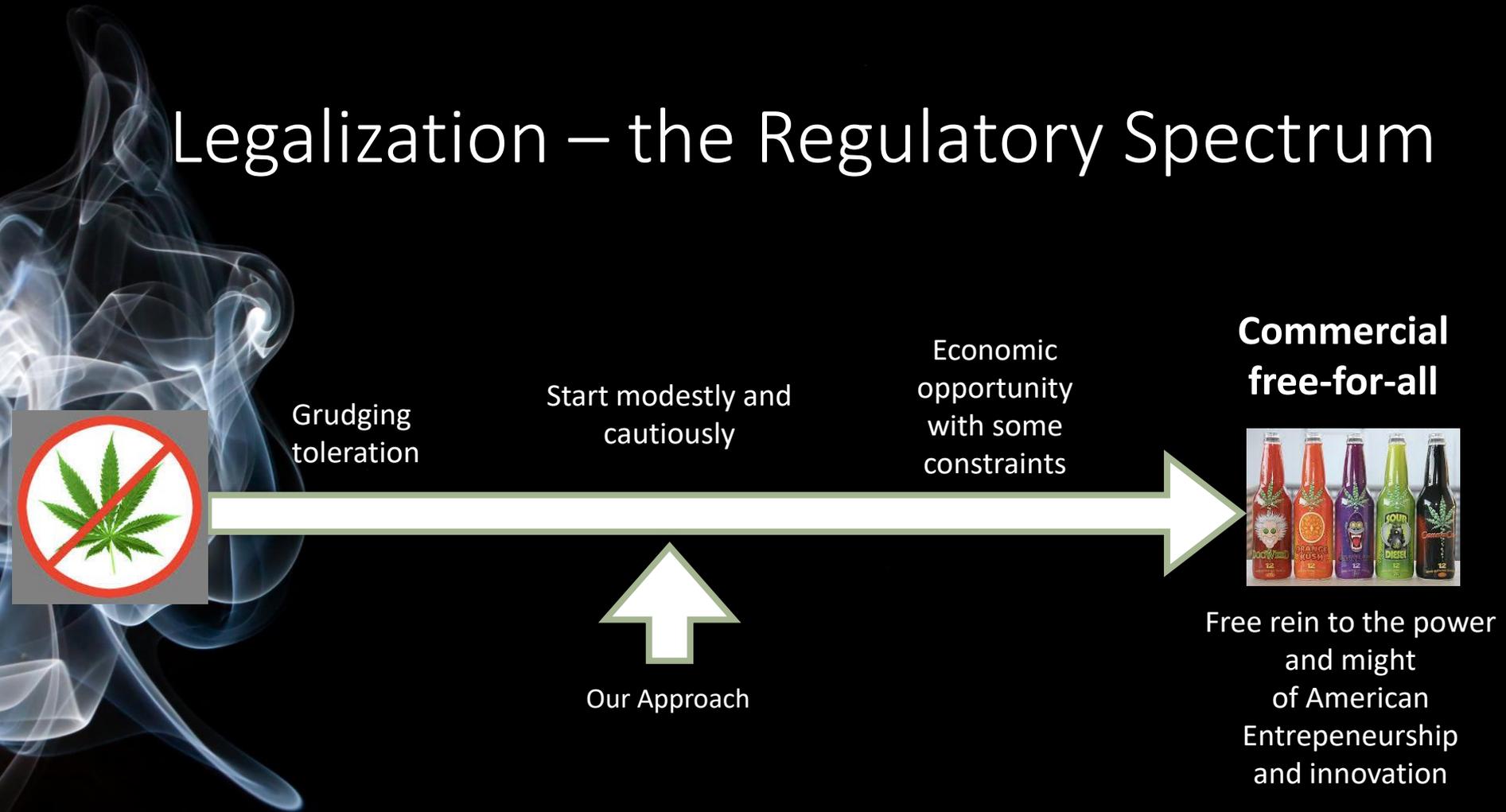
*How many people still go to jail for  
cannabis*



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# Legalization – the Regulatory Spectrum



Source: Slide adapted from Jonathan Caulkins, 2017

# Tough policy questions we should ask

- How do we create an ordered transition to the legal market?
- How many stores is enough?
- What products to allow and which not? How potent?
- What does “attractive to children and youth” mean?
- How far can we limit aggressive advertising?
- Best way to assure equity?
- How do we minimize cannabis related incarceration?



# Why not to copy California's state rules

- No limits on # of retailers
- Inadequate limits on product types and potency
- Weak limits on attractiveness to youth
- Weak & invisible ( 6 point font ) health warnings
- Restrictions on advertising far weaker than other states
- Delayed spending on prevention



# Local Authority

Local governments can prohibit or further regulate retail sales beyond state law



# Local Options: Prohibit

- Cities and counties can *prohibit* the retail sale of adult use marijuana
- State must verify local license before issuing state license
- Local controlled threatened by proposed state BCC delivery regulations (illegally?)



# Local Options: Regulate

Cities and counties can allow retail sales with *restrictions*, such as:

- Location, density, proximity
- Hours
- Types of products
- Serving sizes
- Etc.



# Policy Ideas for Another Way

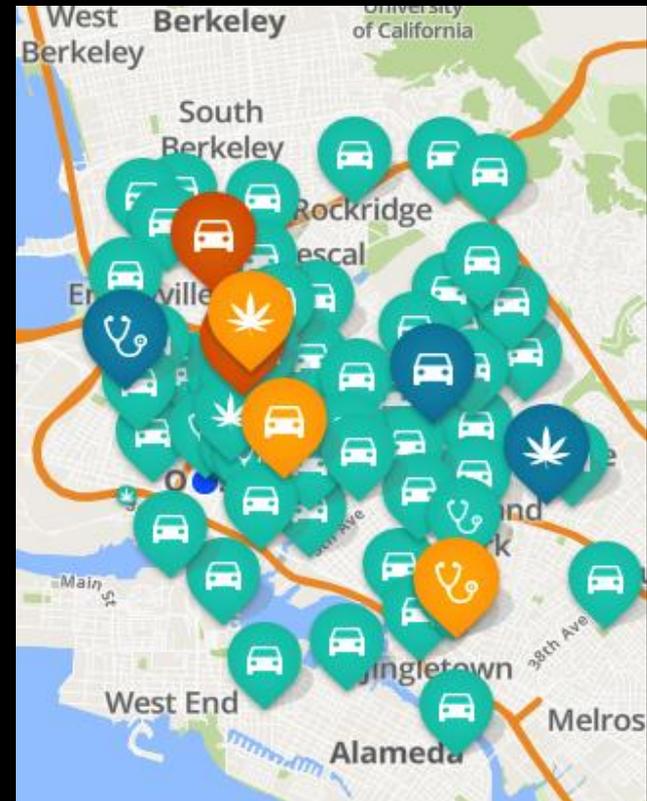
## Limit the Density of Retail Operations

### Caps on retail dispensaries

- San Diego: max 36 or 1:37,000
- Pasadena: max 6 or 1:24,000
- Sacramento: max 30 (1:16,500)

### Buffer zones

- San Diego (city): 1000 ft from parks, schools, daycares, libraries, playgrounds, youth-centered facilities, residential care facilities
- Santa Ana: 1000 ft from schools, parks, existing residential areas





# Promote Economic Justice

- Prioritize and support **equity applicants** such as those most affected by drug related incarceration and other criteria (see also Oakland, LA City or Sacramento rules)
- Require 50% or more of licenses go to equity applicants
- Defer fees and adjust schedule to support equity applicants

# Discourage On-Site Consumption

## No Onsite Consumption

- Berkeley
- Contra Costa County
- Hayward
- L.A. (city)
- Mammoth Lakes
- Mono County



# Retail Activities: Specialized cannabis store model only

- Most other states
- Contra Costa County (no food sales)
- Mammoth Lakes (no food sales)
- Mono County (no food sales & no share entrance)
- Pasadena (no food sales)



# Flavors used to attract youth: Is this what we want sold in our communities?



chelseaqp420

LAK Loaded Blunts

January 27, 2018

★★★★★ 5.0

LAK Loaded Blunts are super tasty and stony. They've got em' in banana, grape, and sweet aromatic wraps. As for flower, they've got em' in Bloodwalker, Strawberry Blondie, and LAK original. My favorite is the Strawberry Blondie in Banana wrap 😊😊



Adios Mango  
Muddasuckas, 125mg

★★★★★ 5.0



Remedy Plus



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# Don't Allow Certain Products

- *Banning flavored products & menthol*
  - FDA banned flavored cigarettes and jurisdictions across CA are still struggling to ban flavored tobacco
  - Contra Costa County prohibited all flavored cannabis intended for inhalation or vaporization
- *“Attractive to youth”*
  - Mono County and Mammoth Lakes prohibited products that would be attractive to youth or children or that resemble commercially sold candy or foods
- *Beverages:*
  - Pasadena and Mono County prohibited cannabis-infused beverages
  - Modeled after “alcopops”



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# Products: Restricting Potency

- Marijuana flower potency has vastly increased from 4% to as high as >30% THC
- Consider limits on flower (>15-20%?) and concentrate potency (>50%?)
- Act cautiously



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## No Prescriber on Premises

Berkeley

L.A. (city)

San Diego (city)

Blythe

Mono County

San Francisco

Hayward

Pasadena

## No Self-Service Displays or Vending Machines

Coachella

Contra Costa County

San Diego (city)



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# Retail Pricing

- Price will be a major determinant of youth use in spite of <21 prohibition
- Vast evidence from tobacco and alcohol



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# Prohibit Discounting

- Adopt bans on discounting/coupons/happy hour or 2 for 1's etc.
- Already used for tobacco (RI, NYC, others) and in Sonoma for medical marijuana
- OH Bans some discounting/promotional approaches



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# Taxation

- Highly effective in tobacco control, part of the Global Framework Convention for Tobacco Control
- Raises money
- How do we balance promoting the shift to the legal market with not making cannabis so cheap it increases use and harm?



# Taxation

- Support both state and local taxes
- Additional tax per mg THC equivalent over certain thresholds
- Higher taxes on other undesirable products if they are not prohibited – like cannapops
- Dedicate most resources to prevention efforts and healthier communities, treatment should be secondary



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# What should tax funding go to?

- Source for funding wellness, prevention & health equity
- Can be used to address substance use, but recommend broader focus
- Be strategically dedicated to undoing the complex web of social and health factors that perpetuate substance abuse, exacerbate its consequences in people's lives, or diminish freedom, safety, health, well-being, ability to find jobs or to live a dignified life from youth to old age



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# Reduce Drug-Related Incarceration

- Enforcement should not lead to more incarceration
- Develop programs, policies & funding to ensure this



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# Address the Opioid Epidemic



**ONE OPIOID OVERDOSE  
IS TOO MANY.**

**YOU HAVE THE POWER  
TO SAVE A LIFE.**

- Seek a treatment referral for yourself or your loved one.
- Learn how to use naloxone.

Call 410.313.6202 | After Hours 800.422.0000 | Visit [hchhealth.org/gethelp](http://hchhealth.org/gethelp)

 Howard County Health Department

Message provided by OHA and CHSPPA.

# Start early!

- Nurse Family Partnership or home visiting with high risk mothers
- Prevents adverse childhood experiences, like unemployment or addiction that lead to poor health and social outcomes



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# Require Prominent In-Store Warnings

- Required prominent health warning sign
- Required immigration, probation/parole signs

**i) Are you pregnant or breastfeeding?** According to the U.S. Centers for Disease Control (CDC), marijuana use during pregnancy can be harmful to your baby's health, including causing low birth weight and developmental problems.

**ii) Driving while high is a DUI.** Marijuana use increases your risk of motor vehicle crashes.

**iii) Not for Kids!** Starting marijuana use young or using frequently can lead to problem use, and according to the CDC may harm the developing teen brain.

**iv) Marijuana use may be associated with greater risk of developing schizophrenia** or other psychoses. Risk is highest for frequent users.

**v) Smoking marijuana long term can make breathing problems worse.**

**This message is provided as public service by the City/County of XXX**

**Using or possessing marijuana or working in the marijuana industry is legally risky for any noncitizen.** This includes lawful permanent residents, undocumented persons, students, and others. Marijuana is illegal under federal law, and federal law controls immigration. If you need to take medical marijuana, see an immigration attorney for advice.

This information is provided as a public service by the City/County of XXXXX

# Advertising and Labeling

## Remember Joe Camel? He's back



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# Packaging & Labeling: Strain names directed at youth



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# Prohibit Therapeutic Claims on Recreational Cannabis



“Top Shelf Bubble Gum Galaxy Joint...enjoy this expertly rolled joint for its natural healing effects...perfect for those experiencing stress, pain and depression.”

## Bubble Gum Galaxy Pre Roll

PRE-ROLL

<p>Above-Top Shelf Bubble-Gum Galaxy Joint will have you feeling like you're traveling through space in a spaceship. Many smoking-enthusiasts enjoy this expertly rolled Joint for its natural healing effects that make people feel happy, euphoric and relaxed. Packed with a top-shelf Hybrid strain, this pre-roll is perfect for those experiencing stress, pain and depression.</p>

EACH  
29.00



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Restrict advertising  
to the maximum  
extent possible  
under the law

# Require Warning Labels on Advertising

- Modeled after tobacco or alcohol warnings
- San Francisco sugar sweetened beverage ads warning label requirement

KOROVA



MINT DIP

KOROVAEDIBLES.COM  MEDICATE RESPONSIBLY

Warning from the [County/City]  
The National Academies of Science have found that  
smoking marijuana during pregnancy is  
associated with low birth weight in babies

2002

OUTFRONT

2082

THE CHEESE STEAK SHOP



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EACH  
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# Mobilize, Align & Engage Partners to Avoid a New Big Tobacco

- Bring a needed public health focus to regulation and taxation
- Build coalitions just as we do for tobacco



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# Uncertainty

- Best practices for cannabis regulation are uncertain
- But we know a lot from alcohol & tobacco
- We should start far more cautiously
- It will be much harder to tighten up later



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December 2017

# Model Ordinance Regulating Local Cannabis Retail Sales and Marketing in California



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January 2018

# Model Local Ordinance for Cannabis Taxation in California



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# Thank you

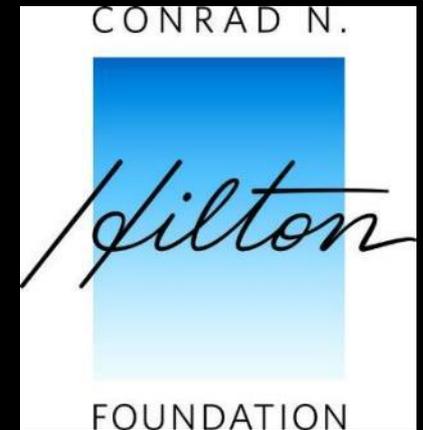
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JD, Jim Mosher, JD, Susan Weiss PhD

[www.gettingitrightfromthestart.org](http://www.gettingitrightfromthestart.org)

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