




Weed – What Do We Do Now?

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What is the impact of marijuana legalization in the African-American community within Los Angeles County?

<http://publichealth.lacounty.gov/sapc/prop64/proposition64.htm>¹



1. Introduction
2. Cannabis: The Current State of Science
3. Cannabis: Prevention Perspective
4. Rethinking Access to Marijuana (RAM) Coalition

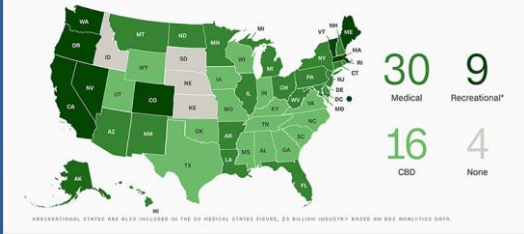
<http://publichealth.lacounty.gov/sapc/prop64/proposition64.htm>²

1. Introduction

<http://publichealth.lacounty.gov/sapc/prop64/prop64.htm>


United States of Marijuana

The state of the union is strong for marijuana, a \$9 billion industry. Recreational weed is legal in nine states and Washington, D.C. Medical marijuana is legal in 30 states, but it's still prohibited by the federal government.



<http://i2.cdn.turner.com/money/dam/assets/180130115042-medical-marijuana-map-780x439.jpg>



California Marijuana Legalization Initiative 

What is Proposition 64?
Adult Use of Marijuana Act (AUMA)


Rules for Personal Use and Cultivation

Adults 21 years or older may:

- Possess, transport, obtain or give away to other adults 21 or older up to **one ounce of marijuana** or **eight grams of concentrated marijuana**.
- Cultivate up to **six plants** per residence and possess the marijuana produced by these plants.

Local governments may still prohibit cultivation outdoors, but allow it inside a private residence or accessory structure that is "fully enclosed and secure."

<http://publichealth.lacounty.gov/sapci/prop64/proposition64.htm> ⁶

Penalties under Proposition 64 

Adults


- Possession of **more than 1 ounce** or **8 grams of concentrate** may be subject to a \$500 fine or 6 months jail time or both.
 - Smoke/ingest in a public place: \$100 fine
 - Smoke cannabis where tobacco is banned: \$250 fine

Minors

- **Minors under 21** may not possess, use, transport, or cultivate non-medical marijuana; subject to a \$100 fine for those 18 and older.
- **Minors under 18** are subject to drug counseling and/or community service.

Cannabis use is prohibited in any public place, non-smoking areas, or within 1,000 feet of a schools or day care or youth center while children are present, except privately at a residence. Owners may forbid the possession or use of marijuana on their property and employers may prohibit use of marijuana by their employees.

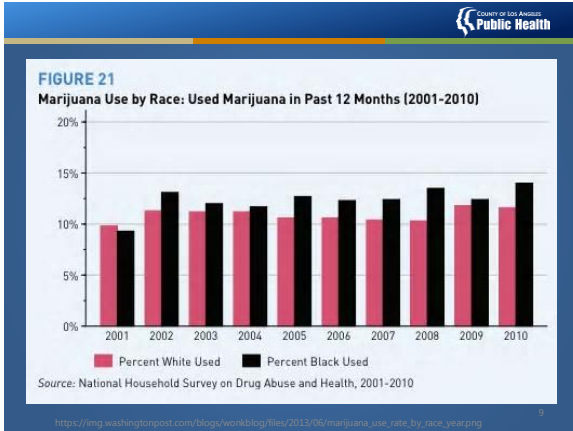
<http://publichealth.lacounty.gov/sapci/prop64/and/prop64penal.htm> ⁷

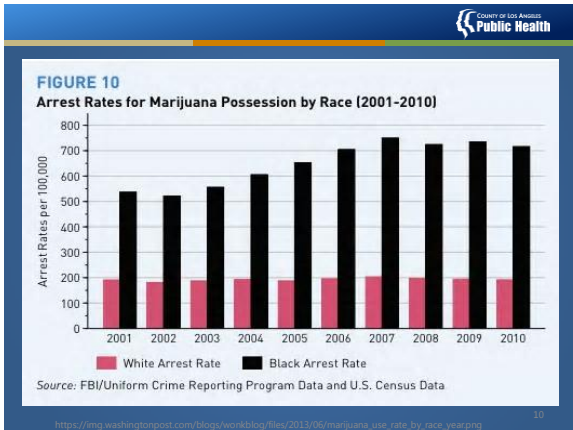
Current Marijuana Use (Percentages) by Race/Ethnicity, United States, 2016 and 2017 

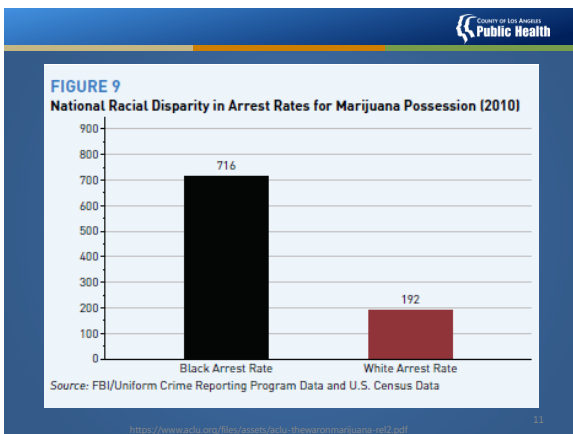
Demographic Characteristic	Aged 12+ (2016)	Aged 12+ (2017)	Aged 12-17 (2016)	Aged 12-17 (2017)	Aged 18+ (2016)	Aged 18+ (2017)
HISPANIC ORIGIN AND RACE						
Not Hispanic or Latino	9.1 ^b	9.8	6.6	6.7	9.4 ^b	10.1
White	9.0 ^b	9.8	6.6	7.1	9.2 ^b	10.1
Black or African American	11.1	11.6	6.5	6.3	11.6	12.2
American Indian or Alaska Native	13.6	15.5	9.7	14.6	14.0	15.6
Native Hawaiian or Other Pacific Islander	8.6	9.1	*	*	9.3	9.7
Asian	3.3	3.7	3.5	2.1	3.3	3.8
Two or More Races	17.7	15.5	12.1	9.4	18.8	16.7
Hispanic or Latino	7.7	8.1	6.1	5.7	7.9	8.5

Marijuana Use in Past Month among Persons Aged 12 or Older, by Age Group and Demographic Characteristics: Percentages, 2016 and 2017

<http://www.samhsa.gov/data/2k18/default/files/chrq-worried-about-the-use-of-marijuana-2017.pdf> ⁸







MOST MARIJUANA USE BEGINS IN ADOLESCENCE



78%
of the 2.4 million people who began using in the last year were aged 12 to 20.¹

As perception of harm decreases...
 Perception of Harm Use
 Marijuana teen marijuana use increases.²

EVERY DAY, 3,287 TEENS USE MARIJUANA FOR THE FIRST TIME¹

NIH National Institute on Drug Abuse

1. NSDUJ, SAMHSA, 2014; 2. MTF Survey; 3. Meier et al 2012; 4. MTF Survey; Cobb-Clark et al, 2013; Silins et al 2014; Tucker et al 2005; Homel et al, 2014; Volkow et al 2014; Ferguson and Boden 2008; Brooks et al 2013

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Contributing Community Risk Factors

County of Los Angeles Public Health

- **Access & Availability**
 - Dispensary Location & Over-concentration
 - Products
- **Social Norms**
 - "Normalization" of Marijuana
- **Public Health & Safety**
 - Social Determinants of Health
 - Crime and Criminalization



County of Los Angeles Public Health

Figure 2
Social Determinants of Health

Economic Stability	Neighborhood and Physical Environment	Education	Food	Community and Social Context	Health Care System
Employment	Housing	Literacy	Hunger	Social integration	Health coverage
Income	Transportation	Language	Access to healthy options	Support systems	Provider availability
Expenses	Safety	Early childhood education		Community engagement	Provider linguistic and cultural competency
Debt	Parks	Vocational training		Discrimination	Quality of care
Medical bills	Playgrounds	Higher education			
Support	Walkability				

Health Outcomes
Mortality, Morbidity, Life Expectancy, Health Care Expenditures, Health Status, Functional Limitations

KAISER FAMILY FOUNDATION

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<http://kaiserfamilyfoundation.files.wordpress.com/2012/11/8802-figure-2.png>

2. Cannabis: The Current State of Science

<http://publichealth.lacounty.gov/sapic/prop64/proposition64.html>

Outline

Cannabis: More Than a Plant

- Terminology

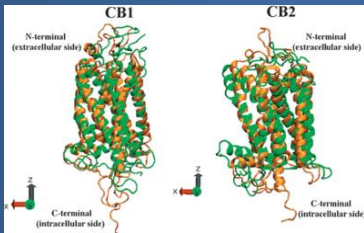
The Current State of the Science

- FDA-Approved Cannabinoids
- National Academies of Sciences, Engineering, and Medicine (NASEM) Review
 - Health – Physical Health, Mental Health, Addiction
 - Policy – Motor Vehicle Accidents, Unintentional Cannabis Overdose



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Cannabis: More Than a Plant



CB1 Receptor – mainly found in the brain/central nervous system

CB2 Receptor – mainly found in the immune system, gut, and peripheral nervous system

Cannabinoids are unique compounds in the cannabis plant which exert physiologic effects, in part, by binding to **cannabinoid receptors**.

These receptors are involved in a variety of processes including mood, memory, sleep, appetite, pain, metabolism, and **immune function**.

Ramesh, D. The Role and Clinical Implications of the Endocannabinoid System in Pain Processing. *Journal of Pain Management*. 2017;33(2):1-12

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Terminology

At least **70 different cannabinoids** have been identified in cannabis, with the most studied being **Δ9-tetrahydrocannabinol (THC)** and **cannabidiol (CBD)**.

- **THC** is the most abundant cannabinoid found in cannabis and is generally associated with the psychoactive and euphoric effects of cannabis.
- **CBD** is the second most abundant cannabinoid found in cannabis. Unlike THC, CBD is non-psychoactive, has no known abuse potential, and may even possess anti-addictive properties.



Pertwee RG. The diverse CB1 and CB2 receptor pharmacology of three plant cannabinoids: delta9-tetrahydrocannabinol, cannabidiol and delta9-tetrahydrocannabinol. *Br J Pharmacol*. 153(2):199-215. doi:10.1038/sj.bjp.0707442

Important Considerations Related to Terminology

Plant vs. Active Compounds

- Studies have revealed counterbalancing physiologic effects of THC and CBD.
- Due to the complexity of the cannabis plant and the varied effects of its chemical compounds, it is essential to distinguish between the whole plant and its isolated chemical compounds.
 - Referencing the specific compounds of the cannabis plant, as opposed to simply referencing the whole plant, will eventually be necessary to advance the science of cannabis and treat medicinal cannabis with the same level of precision as is traditionally the case for medicines.

Language is important!



Important Considerations Related to Terminology (cont'd)

Recreational vs. Medicinal Cannabis

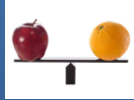
- Generally, recreational cannabis refers to the use of cannabis without a physician recommendation for a specific purpose. On the other hand, medical cannabis refers to its use for specific recommended conditions and purposes, and oftentimes involves more specific focus on the percent composition of THC and CBD.
- The reason this distinction is important is because recreational cannabis oftentimes contains completely different ratios of THC to CBD than medical cannabis with very different physiologic and adverse effects, both in the short- and long-term.



Important Considerations Related to Terminology (cont'd)

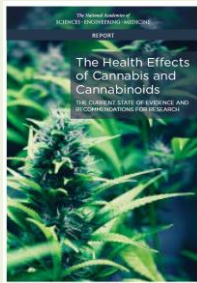
Potency of Present Day Cannabis vs. Cannabis from Decades Ago

- As a result of selective breeding and enhanced technology, the potency of cannabis in terms of THC content has been consistently increasing over the past several decades, rising from approximately 4% in 1995 to 12% in 2014.*
- Simultaneously, the CBD content of cannabis has been decreasing over the same time period.
- **This shift in composition has resulted in 80 orders of magnitude of change in the ratio of THC to CBD, resulting in a significantly different side effect profile as a result of the increased THC.**
 - Subsequently, comparisons of the cannabis available decades ago to the cannabis available on the market today can be scientifically unreliable.



* Edgely, M. A., McMahon, Z., Foster, A., Gee, C., Chandra, S., & Clark, J. C. (2014). Changes in Cannabis Potency over the Last Two Decades. (2015, 2016). Analysis of Current Data in the United States. *Biological Psychiatry*, 76(7), 633-639. <http://doi.org/10.1016/j.biopsych.2015.01.014>

Cannabis: The Current State of Science



FDA-Approved Cannabinoids

*All CBD products other than Epidiolex remain Schedule I.

	Generic (Brand) Name	Indication	Formulation	Schedule
First cannabis-derived CBD product approved by FDA	Cannabidiol (Epidiolex)	Seizures (Dravet syndrome, Lennox-Gastaut syndrome)	Liquid purified CBD	V*
	Dronabinol (Marinol)	AIDS-associated anorexia/weight loss, chemo-related nausea/vomiting	Oral capsule of synthetic THC	III
Synthetic THC/THC analogues	Dronabinol (Syndros)	AIDS-associated anorexia/weight loss, chemo-related nausea/vomiting	Liquid synthetic THC	II
	Nabilone (Cesamet)	Chemo-related nausea/vomiting	Oral capsule of THC analogue	II



National Academies of Sciences, Engineering, and Medicine (NASEM) Review

In 2017, the NASEM published a landmark review titled **“The Health Effects of Cannabis and Cannabinoids: The Current State of Evidence and Recommendations for Research”** that serves as one of the most comprehensive reviews of clinical trials and epidemiologic studies to determine the potential therapeutic effects and health risks of cannabis and cannabinoids.

As of the NASEM review, there were:

- No controlled clinical studies of specific cannabis products available in U.S. dispensaries today (e.g., cannabis flower, edibles, beverages, topicals, concentrates).
- No controlled clinical studies of cannabis/cannabinoids in any pediatric populations were found during the NASEM review.
 - Clinical trials of CBD to treat certain forms of pediatric epilepsy were published after the January 1, 2017 NASEM review cutoff date.

Findings presented from the NASEM review are summarized; see the full report* for details.

*National Academies 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; 2017. doi: [10.17232/1547-4045.24](https://doi.org/10.17232/1547-4045.24)



Important Limitations & Context

These findings are associations, but cannot confirm causality.

These studies generally examined non-medical use, which may involve different patterns of use and levels of THC and CBD compared with medicinal cannabis use.

- As a result, these findings may not be generalizable to cannabis available for legal purchase today.

Smoked cannabis was the only delivery route examined in these studies. As such, these findings may not apply to other forms of cannabis consumption.

Unknown if and to what degree contaminants contributed to the observed findings.

Scheduling

- Cannabis remains federally classified as a Schedule I drug under the U.S. Controlled Substances Act. Schedule I drugs are defined as having a high potential for abuse and no currently accepted medical use.
- Significant federal research restrictions on Schedule I drugs have largely contributed to why there is an overall lack of information on the health implications of cannabis use.



NASEM Review Key Findings – Therapeutic Effects

Cannabis or cannabinoids are MODESTLY EFFECTIVE for ADULTS with the following conditions when administered via specific routes:

1. Chronic pain (cannabis* or oral cannabinoids**)
2. Chemotherapy-induced nausea and vomiting (oral cannabinoids**)
3. Multiple sclerosis (MS)-related spasticity (oral cannabinoids**)

* Cannabis refers to smoked/vaporized cannabis, which contains many active cannabinoid compounds.

** Oral cannabinoids refer to pharmaceutical preparations of individual cannabinoids. This does not include edibles or other oral forms of cannabis available in dispensaries.

NASEM Review Key Findings – Inadequate Information to Assess Therapeutic Effects

- Addiction
- Amyotrophic lateral sclerosis
- Anorexia and weight loss associated with HIV
- Anxiety
- Cancer
- Dementia
- Depression
- Dystonia
- Epilepsy
- Glaucoma
- Huntington's disease
- Irritable bowel syndrome
- Parkinson's disease
- Post-traumatic stress disorder
- Schizophrenia and other psychoses
- Sleep disorders
- Spasticity
- Tourette syndrome
- Traumatic brain injury

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NASEM Review Key Findings – Other Health Effects

Prenatal, Perinatal, & Neonatal Exposure

- Smoking cannabis during pregnancy is linked to lower birth weight in the offspring.
- Cannabis use is increasing among women in and around their pregnancies. Among pregnant women in the U.S., self-reported past-month use of cannabis increased 62% between 2002 and 2014.

A Pregnant women

B Nonpregnant women

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NASEM Review Key Findings – Other Health Effects (cont'd)

Unintentional Overdose

- Increased risk of unintentional cannabis overdose injuries among children in states where cannabis use is legal.

- In Los Angeles County → Increase in ED visits and hospitalizations related to marijuana
- Marijuana was involved in 36.6% of all drug-related ED visits

Marijuana-Related Hospitalizations and ED Visits
Los Angeles County, OSHPD 2005-2015⁶

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NASEM Review Key Findings – Other Health Effects (cont'd)

Motor Vehicle Accidents

- Cannabis use prior to driving increases the risk of a motor vehicle accident.

Los Angeles County → Marijuana-involved traffic fatalities (positive drug test in driver) increased by 620% in Los Angeles County from 2003 - 2014

- Large increases coincided with the passage of marijuana laws in California. Increased testing may have at least partially contributed to this increase
- Polydrug use is the most common cause of drugged driving, which makes it difficult to identify which drug(s) caused the impairment responsible for the DUI citation

Traffic Crash Fatalities Involving Marijuana, LAC, 1994-2014

Sources: Fatality Analysis Reporting System, National Highway Traffic Safety Administration, County FARS data.
http://www.pasadena.gov/Portals/0/Files/2014%20FARS%20Report.pdf

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Public Health**

NASEM Review Key Findings – Other Health Effects (cont'd)

- **Mental Health**
 - Cannabis use ↑ risk of developing schizophrenia and other psychoses in predisposed individuals – the greater the use, the higher the risk.
 - For individuals with bipolar disorders, near daily cannabis use may be linked to greater symptoms of bipolar disorder than among non-users.
 - Heavy cannabis users are more likely to report thoughts of suicide than non-users.
 - Regular cannabis use is likely to increase the risk of developing social anxiety disorder.

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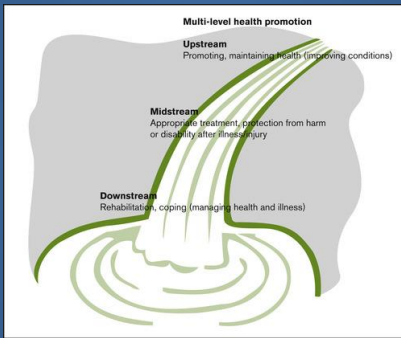
**County of Los Angeles
Public Health**

NASEM Review Key Findings – Other Health Effects (cont'd)

Associations and Risk Factors of Smoked Cannabis and Various Health Conditions	
Psychosocial	<ul style="list-style-type: none"> • Recent cannabis use (within 24 hours of evaluation) impairs performance in the cognitive domains of learning, memory, and attention. • Cannabis use during adolescence related to impairments in subsequent academic achievement and education, employment and income, and social relationships and social roles.
Problem Cannabis Use & Abuse of Other Substances	<ul style="list-style-type: none"> • Greater frequency of cannabis use increases the likelihood of developing problem cannabis use. • Initiating cannabis use at a younger age increases the likelihood of developing problem cannabis use. • Cannabis use is likely to increase the risk of developing other substance use disorders (other than cannabis use disorder).
Respiratory Disease	<ul style="list-style-type: none"> • Smoking cannabis on a regular basis is associated with chronic cough and phlegm production.

3. Cannabis: Prevention Perspective

<http://publichealth.lacounty.gov/sapc/prop64/proposition64.htm>




<https://nursekey.com/wp-content/uploads/2017/04/02-01-9780729539548.jpg>

SAPC Prevention Frameworks

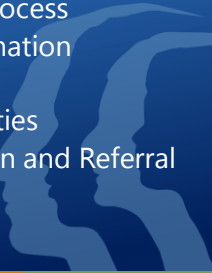
- Strategic Prevention Framework (SPF)
- Institute of Medicine (IOM) classification
- SAMHSA's Center for Substance Abuse Prevention (CSAP) Strategies.


The use of these frameworks is required by the State Department of Health Care Services and included as part of its data reporting requirements.

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Prevention Strategies 

1. Education
2. Community Based Process
3. Information Dissemination
4. Alternative Activities
5. Environmental Activities
6. Problem Identification and Referral





Goal 1: Reduce misuse of Rx and OTC Medications

Goal 3: Decrease underage drinking and binge drinking among youth and young adults

Strategic Prevention Goals

Goal 2: Decrease marijuana use among youth and young adults.

Goal 4: Prevent meth and other illicit drug use by youth and young adults

Prevention Program Efforts 

Collaborations

- > Rethinking Access to Marijuana Coalition
- > Marijuana Media Campaign
- > Cannabis Education, Prevention and Intervention (EPI) Workgroup

Education Forums

- > DPH-SAPC Cannabis Summit
- > Emerging Leaders Youth Summit

Community Assessments

- > Marijuana Education Initiative (MEI) Pilot
- > Community Needs Assessment (CNA) Surveys
- > Marijuana Public Smoking Initiative (MPSI)
- > Community Health Environmental Scan (CHES)



Nearly 10,000 Respondents



2017 County-wide Community Needs Assessment

Perception of Harm

- 59% felt there was no harm associated with marijuana use.
- 16% believed there was harm if driving under the influence
- 13% felt cannabis use would decrease motivation!
- 11% felt it would lead to poor work performance.

Use Consequences

- Nearly half (49%) of Youth, ages 12-17, and 31% of young adults ages 18-20 reported having gone to school under the influence.
- 27% reported having gone to work or school under the influence of marijuana!

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Access and Availability

- 62% of survey responders felt that it was easy for them to get marijuana on the streets around their neighborhoods.
- Slightly over half of youth, ages 12-17, felt they had easy access to marijuana.
- More than 70% of young adults between 18-20 reported having easy access to marijuana.



4. Rethinking Access to Marijuana (RAM) Coalition

<http://publichealth.lacounty.gov/epic/propos64/proposition64.htm>

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Rethinking Access to Marijuana (RAM) is a diverse group of community-based organizations working together to educate people about the harms of youth marijuana use and committed to helping Los Angeles County residents take action in their communities to minimize youth exposure to marijuana.

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RAM History

- Formed August 2014
- Includes over 35 agencies across Los Angeles County
- Partners from non-profit and community-based organizations, government agencies, law enforcement and other health service providers.
- Recognized a need to collaborate and partner to address mutual concerns related to marijuana and youth.
- Prevention partners are funded through SAPC

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RAM Committees

Education	Policy
Research	Media



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Community Health Environmental Scan (CHES)

PURPOSE

Conduct a one-year follow-up scan on new and existing marijuana businesses to compare to baseline data before cannabis legalization

GOALS

Compare to Fall 2017 baseline data

Compare changes to storefronts and advertising post legalization

To obtain data to inform and educate local decision makers and community about storefront access, density, and associated health and environmental consequences.

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Community Health Environmental Scan (CHES)

- **92% of stores** either had no windows or tinted/covered windows
- **Around 30%** of stores had visible signage or advertisements
- Stores posing as an alternative business
- Use of green cross, paint, lights, storefront
- Alternate entrances



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Community Health Environmental Scan (CHES)

- 340 stores observed
- **58%** near food establishments
- **56%** near residential homes
- **43%** near liquor stores
- **24%** near another marijuana business and/or smoke shops
- **Sensitive locations:** schools, homes, churches, and youth centers



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Resources

LAC Substance Use Treatment Services

Screening and Referral Call 1-844-804-7500

DPH – Substance Abuse Prevention and Control, Prevention Services:

Prevention Website

<http://publichealth.lacounty.gov/sapc/prevention/PreventionLinks.htm>

DPH Prop 64 Resource Webpage:

<http://publichealth.lacounty.gov/sapc/Prop64/Proposition64.htm>

LA County Office of Cannabis Management:

<https://www.lacounty.gov/marijuana>

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Thank you!



“The opposite of addiction is not sobriety; the opposite of addiction is social connection.”

- Johann Hari

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