

Marijuana Observations from Tobacco Control

April Roeseler
Branch Chief
California Tobacco Control Program
September 1, 2016
CCLHO Meeting



Tobacco and marijuana, a tale of two plant products



Convergence of tobacco, vaping and marijuana

- Flavored cigars and flavored blunt wrappers are used in combination with marijuana (MJ)
- Electronic smoking devices are used with MJ plant and THC oil
- MJ produces secondhand smoke (SHS) and particulate matter
 - Perception that it's "medical" so it's okay
 - Perception that it's "natural" so it's okay
 - Perception that it's safer than tobacco smoke



We are the Tobacco Control Program, not the MJ Control Program

- CTCP operates in an environment that is increasingly permissive towards MJ use. As a result, our day-to-day work is impacted.
- Our local partners are asking, “Can they and should they draft or update SHS protection ordinances to prohibit MJ SHS exposure; can they prohibit medical marijuana use in multi-unit housing?”
- We are being asked to contrast and compare tobacco and MJ smoke; whether vaping MJ is safer than smoking it; and what are the health impacts of using these products?
- We are having to rewrite tobacco use surveillance questions because in response to traditional questions such as, “During the past 7 days, on how many days have people smoked in your home in your presence?” **Respondents ask, “Smoked what?”**

We need to understand

- Public health implications of MJ use
- Impact of MJ use on normalizing smoking
- Impact of MJ use on clean indoor air
- How MJ is used with tobacco, who the the dual users are, prevalence of dual use, and which product do users start with
- How to effectively communicate health effects associated with MJ

“but I know weed out of all of these to me is not as harmful, only because [...] they suggest it to like, cancer patients. And, it’s so medicinal for people.”

Lucy Popova, Qualitative Study of Marijuana Use in Colorado, February 2016 presentation

Comparison of tobacco and marijuana SHS

	tobacco	marijuana
tar (mg/cig)	24.3 ± 1.8	49.7 ± 2.5*
NO (µg/cig)	1101 ± 47	2087 ± 152*
NOx (µg/cig)	1172 ± 44	2284 ± 229*
CO (mg/cig)	61.7 ± 2.0	54.0 ± 3.7*
nicotine (mg/cig)	4.77 ± 0.26	0.065 ± 0.018*
ammonia (µg/cig)	5568 ± 322	14270 ± 472*
HCN (µg/cig)	83.8 ± 7.8	685 ± 29*
NNN	41 ± 4.8	<0.634*
NAT	17.4 ± 1.4	<2.34*
NAB	2.71 ± 0.52	<0.793*
NNK	92 ± 11.7	<4.65*
mercury	8.32 ± 0.57	<4.40*
cadmium	478 ± 19	4.0–13.4*
lead	34.5–115	<34.5
chromium	31.0–103	31.0–103
nickel	35.5–118	35.5–118
arsenic	<11.3	<11.3
selenium	<17.5	<17.5

Marijuana SHS - impact on CV system

- Marijuana SHS for one minute substantially impairs blood vessel function in rats.
- Neither THC nor paper smoke are required for marijuana SHS to impair blood vessel function.
- Nicotine is not required for impairment of blood vessel function by smoke.
- One minute of marijuana SHS exposure impairs blood vessel function for at least 90 minutes.

CA law prohibits *any* smoking indoors

California's Clean Indoor Air Laws

Employers and owner-operated businesses must comply with state tobacco laws

California Clean Indoor Air laws prohibit smoking these products indoors:

-  **Cigars, Little Cigars/Cigarillos**
-  **E-Cigarettes**
-  **Cigarettes**
-  **Marijuana**
-  **Hookah**

California laws allow smoking in:

- Company Vehicles**
Cabs of motor trucks or truck tractors if nonsmoking employees are not present.
- Hotels/Motels**
20% of hotel/motel guest rooms.
- Theatrical Productions**
Theatrical productions if smoking is an integral part of the story.
- Health Care Facilities**
Patient smoking areas of long-term health care facilities.
- Tobacco Shops and Private Smokers' Lounges**
Tobacco shops & smokers' lounges that meet specific criteria.
- Medical Research and Treatment Sites**
Medical research or treatment sites if smoking is integral to the research or treatment.

California laws prohibit smoking in:

Indoor Workspaces

- Public and private offices and office buildings
- Small businesses with 5 or fewer employees
- Owner-operated businesses
- Government buildings
- Factories and warehouses
- Restaurants, bars, taverns, gaming clubs, bingo halls, and pool halls
- Hotel/motel lobbies, banquet and meeting rooms, and 80% of guestrooms
- Social organizations such as Elks Lodges or Veterans Clubs
- Malls, movie theatres, and gyms
- Private residences serving as a daycare, transitional housing, and crisis nurseries
- Covered parking lots, state-owned vehicles, taxi cabs, and cabs of motor trucks and tractor trailers if nonsmokers are present

Indoor Spaces

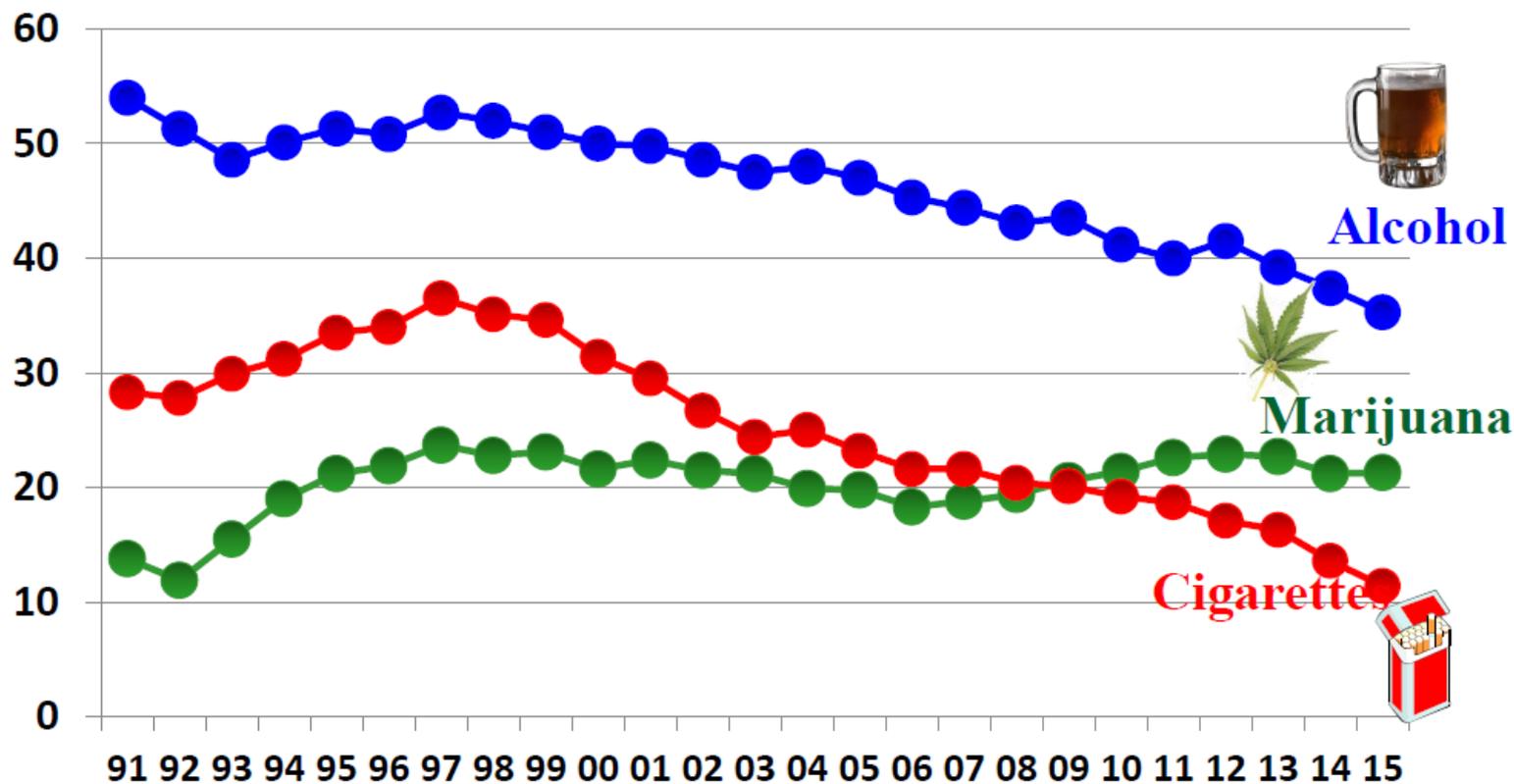
- K-12 public and private schools, universities, colleges, community colleges and trade schools, including residence halls
- Personal vehicles when a minor is present
- Youth and paratransit buses
- Public transportation
- Foster and group homes
- Multi-unit housing common areas
- State correctional facilities
- Hookah lounges if not licensed as a tobacco shop or private smokers' lounge
- Medical marijuana dispensaries
- Nonprofit charitable food facilities
- Specified patient areas of a health clinic or facility

Outdoor Spaces

- 25 ft from tot lots, playgrounds, and certified farmers' markets
- Public and charter school campuses
- 20 ft from main entrance/exit and operable windows of government buildings

Percentage of U.S. 12th Grade Students Reporting Past Month Use of Cigarettes, Marijuana and Alcohol

nearly 6% use marijuana daily



Source: University of Michigan, 2015 Monitoring the Future Study.

Teen marijuana use & adult adverse outcomes

- There is a dose – response relationship between frequency of adolescent marijuana use and adverse adult outcomes.
- Adults who were daily marijuana users as teens were:
 - Less likely to complete high school
 - Less likely to obtain a college degree
 - Substantially more likely to be addicted to marijuana
 - Substantially more likely to use other illicit drugs
 - Substantially more likely to attempt suicide



Colorado: *Good to Know Campaign*

Inquiring minds want to know

I recently went into a tattoo shop looking to get work done, they were smoking cigarettes and drinking beer inside of the shop plus they were smoking marijuana and wax, and those vapor machines. I was curious as to what the laws were on that. I know I won't be returning but they had children who belonged to the owner who had just left as I was entering the building. Is it safe to have all that indoors esp in a shop where they do tattoos. What are the laws on something like that. I know smoking indoors is illegal but they claimed it is legal since they are renting the building.

July 22, 2016

Inquiring minds want to know

- **MMJ Dispensary** – Can I sell electronic smoking devices to qualified customers under 21 years old? Can a customer smoke MMJ in my dispensary?
- **Head Shop** – Can I still sell “tobacco pipes” and rolling papers to customers under 21 years old?
- **Citizen** – What can I do about MMJ SHS exposure from my next-door neighbor? There are too many MMJ dispensaries in my neighborhood – who can help?
- **Citizen** – You have an impactful media campaign regarding harms of e-Cigarettes, why not about marijuana?

Inquiring minds want to know

- **Professional** – What evidence-based cessation treatments are available for people who want to quit using MJ?
- **Professional** – Is the addictiveness of MJ being enhanced similar to what was done with tobacco products?
- **Professional** – THC potency has increased over time, does this translate into increased addictiveness?
- **Professional** – Can I include MJ prevention education in my work plan?
- **Professional** – What resources, educational materials, and tools such as model policies incorporating MJ are available (e.g., density/zoning, multi-unit housing smoke-free policies)?

TEROC recommendations to the Blue Ribbon Commission (July 17, 2015)



- Conduct a comprehensive education & prevention campaign to inform and protect young people, non-users and the general public from the harms of MJ use
- Restrict marijuana consistent with smoke-free laws
- Apply tobacco-related types of policies that protect the public and prevent the uptake of tobacco by young people and reduce tobacco-related disparities to MJ



Short-term challenges of MJ use for CTCP

- Modify surveillance systems to capture MJ data
- Understand the linkages between tobacco and MJ use
- Educate that CA's SHS laws include MJ use
- Counter the misperception that SHS from MJ is harmless
- Educate that CA's T-21 law prohibits the sale of MJ paraphernalia to persons who are <21 years old
- Collaborate with partners to counter the misperception, particularly among young people, that marijuana use is harmless because it has a "medical" use