

Cannabis and Tobacco: Seven areas of overlap that matter to public health

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Objective

To share the major points of overlap between marijuana and tobacco and describe key issues tobacco control and marijuana prevention professionals should be aware of.

Isn't cannabis just like.....

Tobacco



Similarities:

- Mode of use/products
- Policy overlap
- Industry

Differences:

- No accepted medical uses
- Not impairing
- Addiction potential
- Morbidity and Mortality

Alcohol



Similarities:

- Prohibition → Legality
- Policy overlap
- Industry
- Impairing
- Addiction potential

Differences:

- Mode of use
- Morbidity and Mortality

Opiates



Similarities:

- Medical uses
- Produced by our bodies
- Impairing
- Industry

Differences:

- Respiratory depression
- Addiction potential
- Morbidity and Mortality

#1: Co-Use is common



Types of co-use

- **Co-Administration** – Using tobacco and cannabis in the same product (e.g., blunts, spliffs, electronic products, etc.).
- **Concurrent use**– Using tobacco and cannabis at the same time, but not in the same product
- **Sequential use** → Using tobacco and cannabis in close proximity, but not at the same time (e.g., “chasing” or “boosting”)
- **Use in same month, but on different days**
→ This is typically all our surveillance allows us to know....



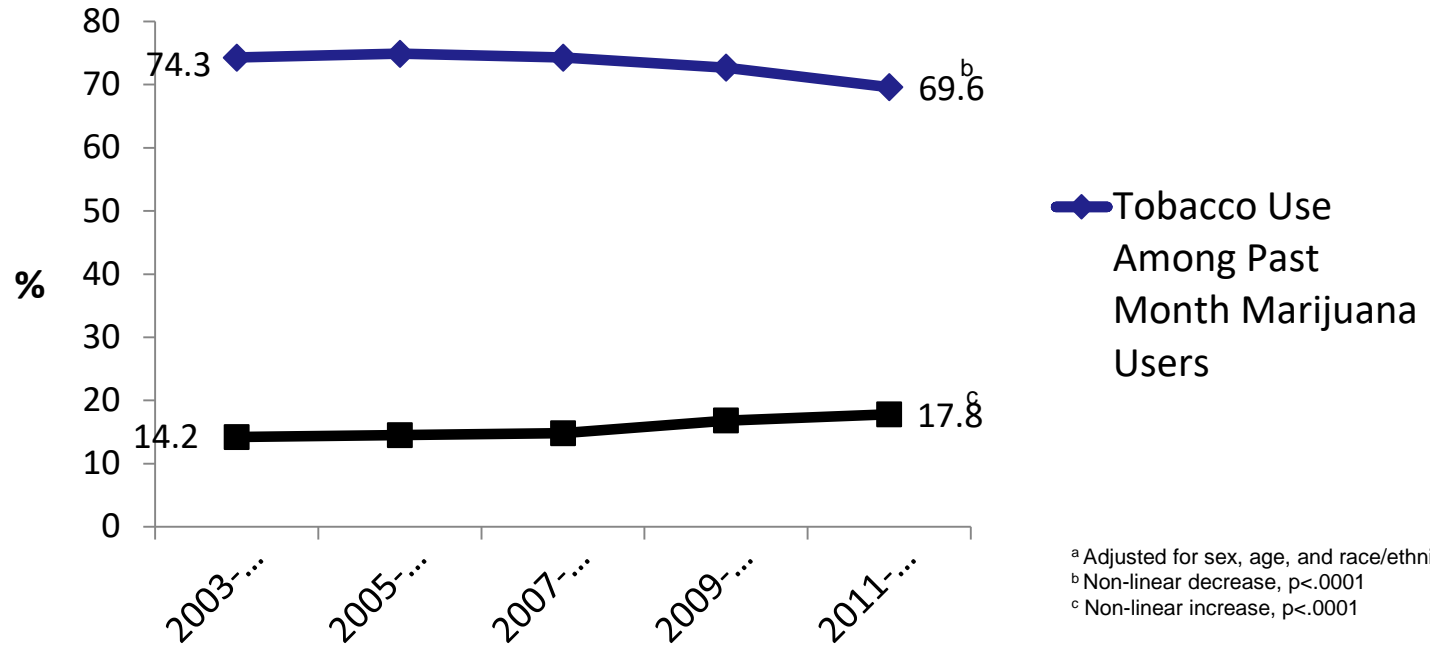
Blunt



Spliff



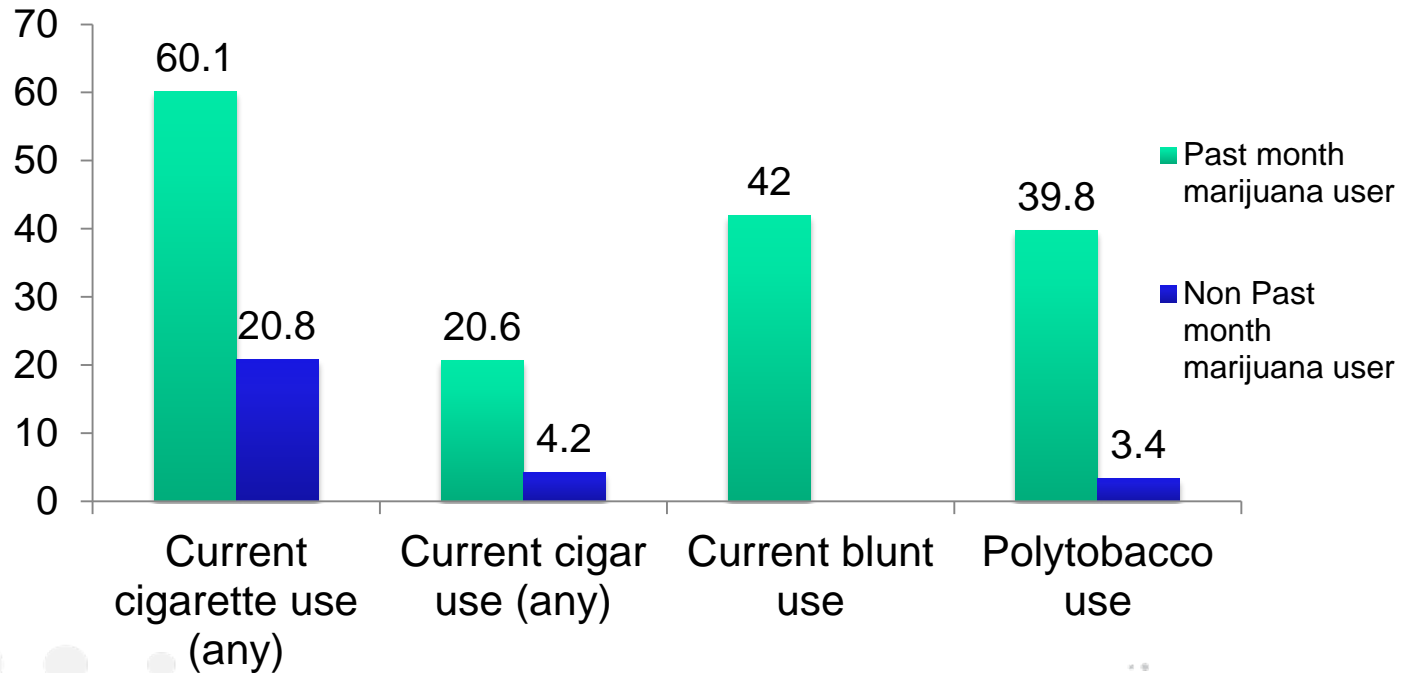
Adjusted prevalence^a of tobacco use among MJ users and MJ use among tobacco users, NSDUH, 2003-2012



Citation: Schauer, Berg, Kegler, et al. (2015) Assessing the overlap between tobacco and marijuana: Trends in patterns of co-use of tobacco and marijuana in adults, 2003-2012. *Addict Behav*, 49:26-32

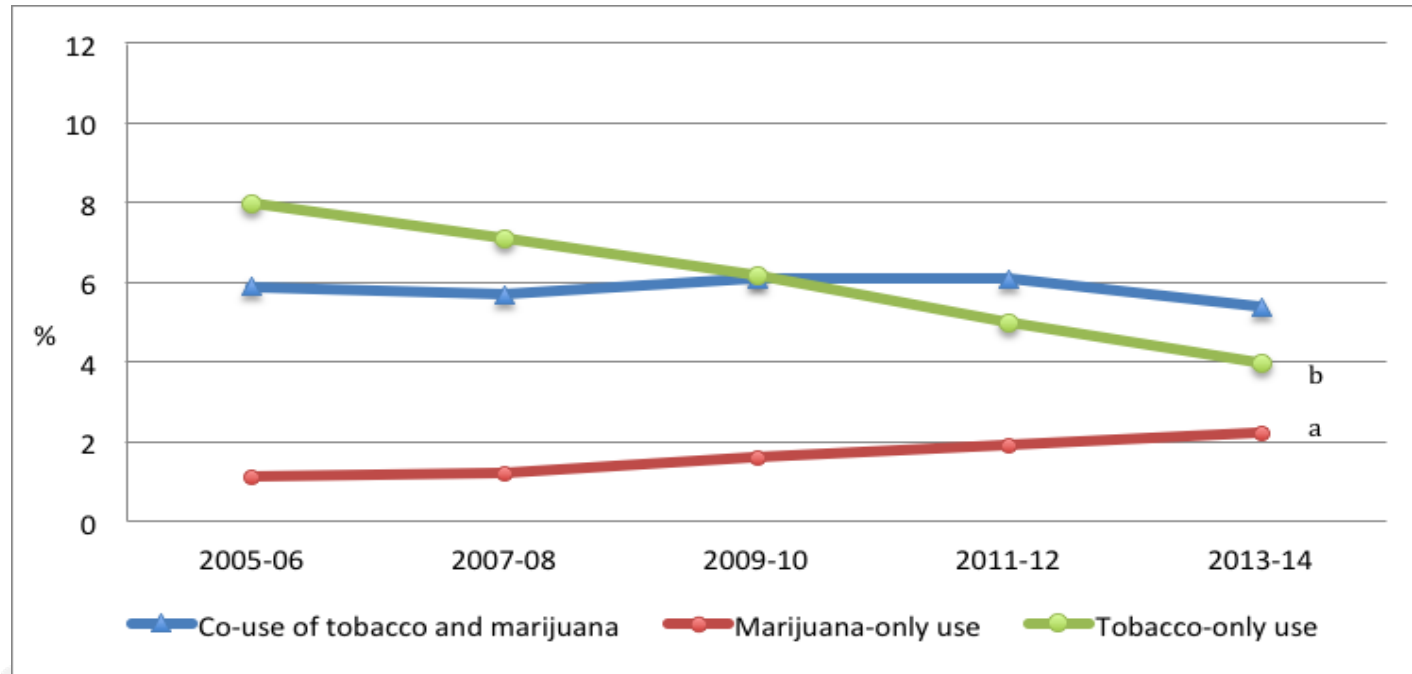
Which tobacco products do adult marijuana users consume?

Prevalence of past 30-day tobacco product use among adults age 18 and older, by past 30-day MJ use, NSDUH, 2011-2012



Citation: Schauer, Berg, Kegler, et al. (2016) Differences in Tobacco Product Use Among Past Month Adult Marijuana users and Nonusers. *Nicotine Tob Res*, 18(3):281-8.

Adjusted trends in co-use, marijuana-only use, and tobacco-only use among youth 12-17 years – NSDUH, 2005-2014



Where Co-use of marijuana and tobacco = past month use of both marijuana and tobacco, Marijuana-only use= past month use of marijuana only (no tobacco), and Tobacco-only use = past month use of tobacco only (no marijuana).

^a Linear increase in MJ only use ($p < .0001$)

^b Linear decrease in tobacco only use ($p < .0001$)

#2: Overlapping methods of use and products



Overlapping Methods of Use and Products

Methods of use:

- Both primarily smoked^{1,2}
- Vaping on the rise
- Heat not burn (dry herb vaping)

Products look increasingly similar (or are compatible):

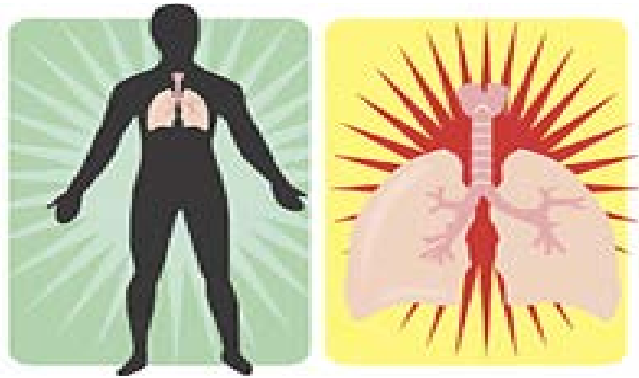
→ Implications:

- For surveillance
- For policy
- For enforcement
- For messaging, public education



1: Schauer, King, Bunnell et al. (2016) Am J Prev Med; 2: Odani, Armour, Graffunder et al. (2018), MMWR.

#3: Compounding health effects



Compounding Health Effects

→ Lack of information about health effects....

Using cannabis and tobacco can:^{1,2,3,4}

- Exacerbate respiratory effects
- Possibly compound mental health and cognitive development effects
- Presents an additive risk of exposure to carcinogens and toxicants



#4: Potential Impacts on Quitting

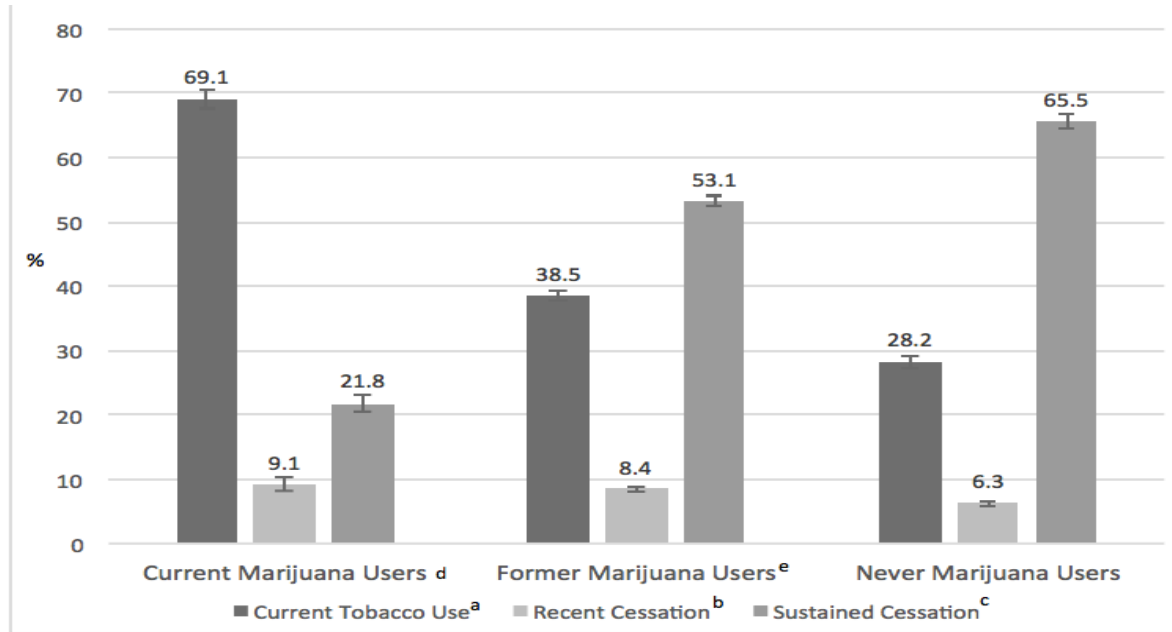


Possible Mechanisms Impacting Quitting

- THC and nicotine **may interact to enhance the rewarding effects**, making quitting harder.¹
- Stronger evidence that nicotine makes quitting cannabis harder; inconclusive for the reverse.^{2,3}
- **Menthol:** May be present in blunts, spliffs, or in cigarettes/cigarillos often used as blunt “chasers”⁴ → Don’t know the impact of increased menthol use.
- Cues for relapse or substitution?



Prevalence of Current Tobacco Use, Recent Cessation, and Sustained Cessation by Current Marijuana Use, Among Adult Ever Tobacco Users, NSDUH, 2013-2014



- ^a Past 30 day use of cigarettes, cigars, or smokeless tobacco
- ^b Quit tobacco 30 days to 12 months
- ^c Quit tobacco >12 months
- ^d Past 30 day use of marijuana, hashish, or blunts
- ^e Ever use of marijuana, hashish, or blunts, but no past 30 day use

#5: Potential Impacts on Smokefree Air Laws



What do we know about secondhand marijuana smoke?

- Limited research on direct health effects of secondhand marijuana smoke....
- THC has not been found to be carcinogenic, but cannabis smoke has¹
- Marijuana smoke → many of the same constituents as tobacco smoke, and some in higher concentrations.²
- CA Office of Environmental Health Hazard Assessment added marijuana as carcinogen and reproductive toxin in 2009 (w/at least 33 carcinogens present in the smoke).³
- American Society of Heating, Refrigerating, and Air-Conditioning Engineers (ASHRAE) considers marijuana smoke and indoor pollutant.



1: WHO, 2016; 2: Moir et al., 2008; 3: Reproductive and Cancer Hazard Assessment Branch, Office of Environmental Health Hazard Assessment, California Environmental Protection Agency. August 2009

Why is this a complicated landscape?

Equity issues

- Public and rented housing
- Disparities in law enforcement (that continue)
- Criminalized history

Science still unclear, lacking surveillance data

Cannabis ≠ Tobacco:

- Valid medical uses
- Science unclear on comparative harms of various modes of use
- Non-combusted products are often high potency, carry different harms and externalities



Even After Legalization, Black Americans Are Arrested More for Marijuana Offenses



#6: Potential Impacts on Social Norms and Youth Use



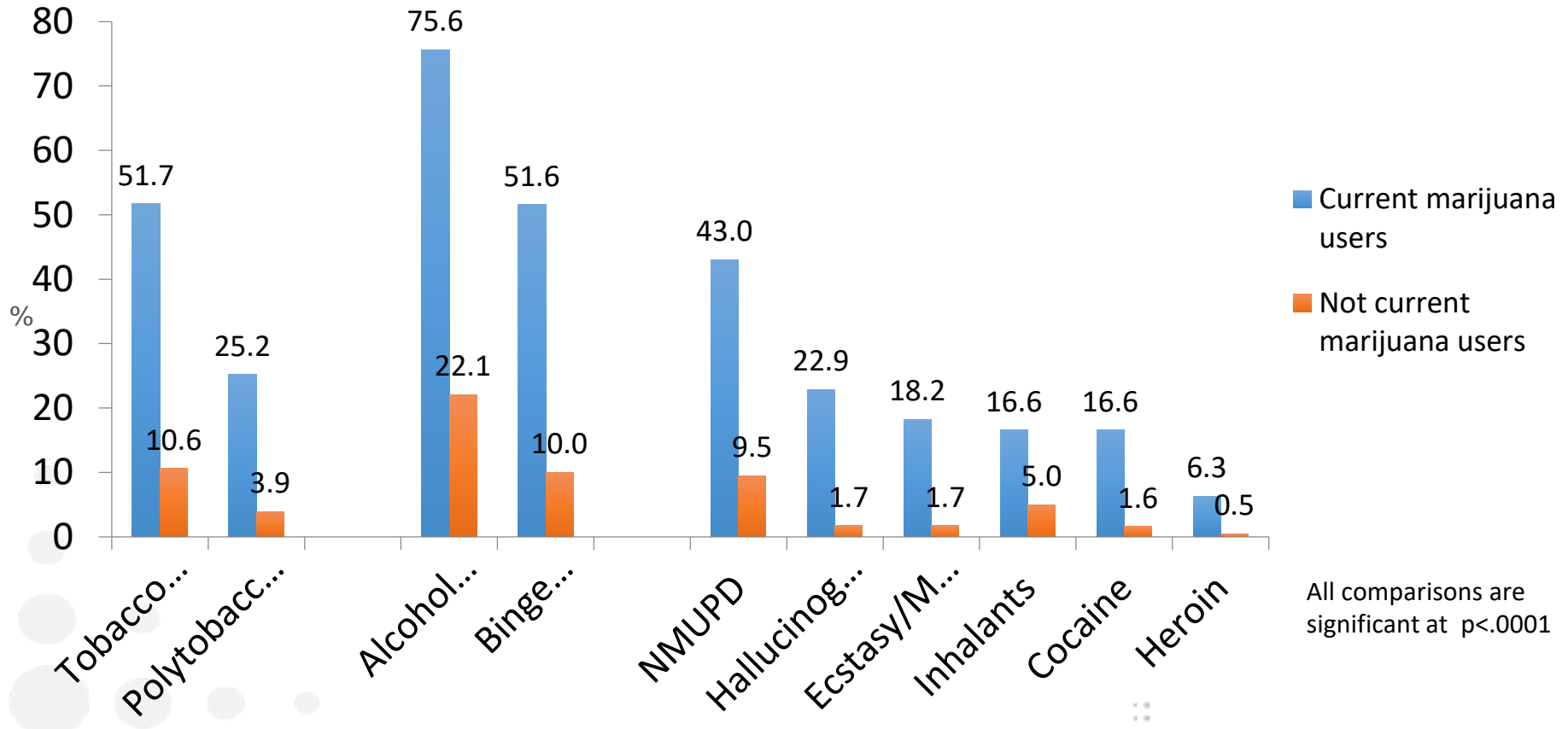
Impact on youth tobacco initiation and use?

- **Social norms and access changing**
(perception of marijuana as medicine/low risk¹)
→ But so far, limited/no impact on utilization
- **Gateway vs. reverse gateway**
 - In 2012, 41.5% of Black youth and 24% of White youth used marijuana before tobacco.²
 - Use of marijuana before tobacco has increased since 2005.³
- **Potential for nicotine exposure** that kids may not be aware of through blunts, spliffs⁴
- Co-use of tobacco and marijuana is more prevalent in youth than use of either marijuana or tobacco alone.³
- Canary in the coal mine?



1: Monitoring the Future data; 2: Kennedy, Patel, Cheh, et al., 2017 ; 3: Unpublished data from 2005-2014 National Survey on Drug Use and Health 4: Peters, Schauer, Rosenberry, Pickworth, 2016.

Substance use behaviors among high school students, by marijuana use status, National Youth Risk Behavior Survey, 2013-2015

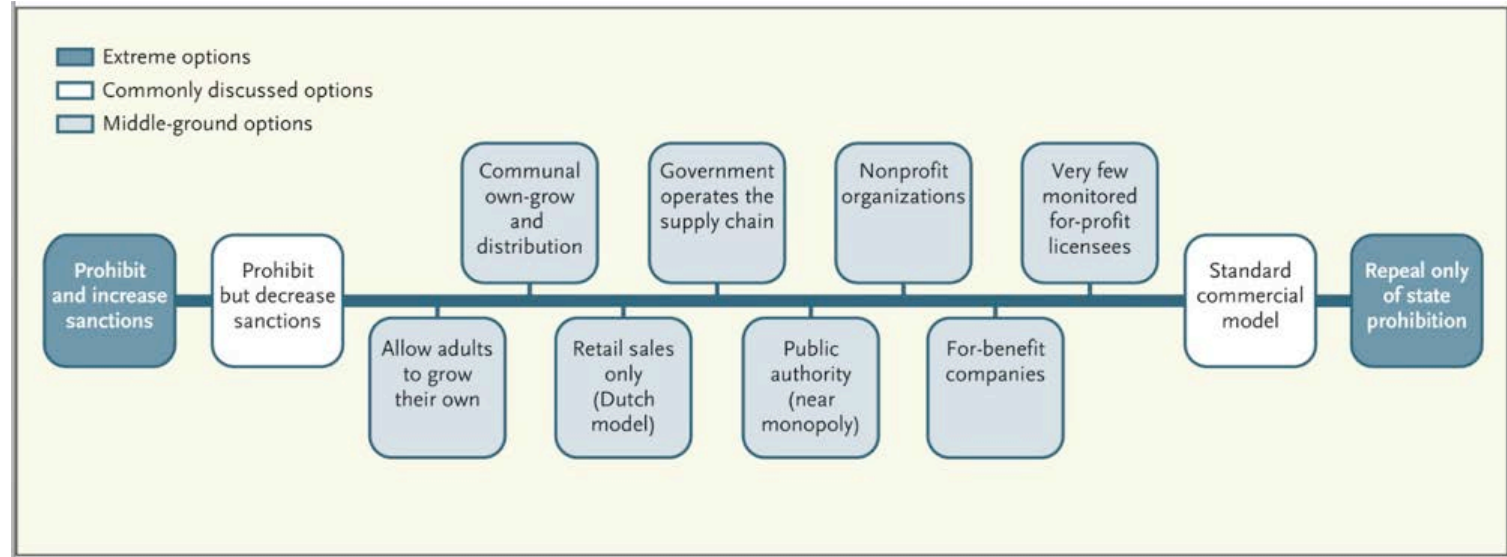


Unpublished data, Schauer et al., 2018, from YRBS

#7: Potential Industry Overlap



A range of cannabis policies



Citation: Kilmer, B. Recreational Cannabis – Minimizing the Health Risks from Legalization (2017) New England Journal of Medicine; 376 (8): 705-707

Similarities to Big Tobacco¹

- **Commercial industry**
(vs. other legalization approaches)
- **Advertising is largely unregulated;**
industry is challenging boundaries
- Products and packaging that **appeal to youth** (use of cartoons, colors, etc.)
- **Harm reduction language**
- **Similar marketing, point of sale issues**
 - Trusted spokespeople
 - Daily deals
 - Branding with appeal



Will Big Tobacco and Big Marijuana merge?

- Federal prohibition and state laws limit involvement from Big Tobacco
- Big tobacco has long been interested in the marijuana industry¹
- Evidence of current interest:
 - Imperial Brands appointed Canadian supplier of cannabis extracts to board last year, changed from Imperial Tobacco to Imperial Brands.
 - Alliance One International tobacco company acquired majority stake in two Canadian cannabis companies.
 - Philip Morris International bought a patent on specific non-GMO cannabis strains



THIS IS NOT A
REAL PRODUCT

1: Barry, R.A., Hillamo, H., Glantz, S.A. (2014) Waiting for the opportune moment: the tobacco industry and marijuana legalization. Milbank Quarterly; 92(2):207-42

Main take-aways for public health

- Major overlap in populations using these two substances
- Co-use has implications for health, addiction/cessation
- Product/mode of use overlap will present challenges for tobacco control
- Marijuana use has implications for social norms about smoking/vaping
- Risk to smokefree/clean indoor air laws



Future Directions

More information warranted on:

- Health effects of co-use
- Impact of co-use on subsequent tobacco use
- Implications for cessation
- Health effects of secondhand smoke and aerosol

Continued monitoring and surveillance of co-use is warranted

Tobacco ≠ cannabis – BUT areas of tobacco control can be policy models for cannabis

Questions?

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