## Vaping: A Community Event

#### Kevin P. Hill, M.D., M.H.S. Belmont Wellness Coalition 23 October 2023

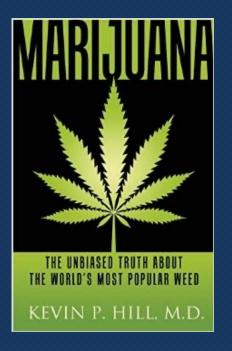


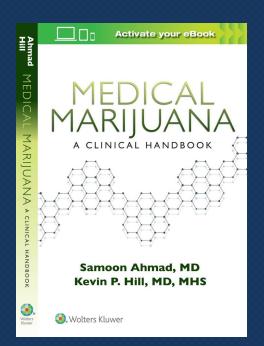
Beth Israel Deaconess Medical Center

Division of Addiction Psychiatry, Beth Israel Deaconess Medical Center khill1@ bidmc.harvard.edu, DrKevinHill.com, @DrKevinHill

#### Disclosures

- Books- Hazelden Publishing, Wolters-Kluwer.
- Consultant: NFL.





#### www.cannabistextbook.com

## **Learning Objectives**

- To discuss current trends in vaping.
- To review risks of both nicotine and cannabis.
- To describe what treatment might look like for both of these substances.

#### **Three Areas of Focus**

- Clinical work: Director of Addiction Psychiatry, private practice, pro sports teams and leagues.
- Clinical research: cannabis and cannabinoids for medical indications.
- Educational outreach: Science vs. public perception, schools, policymakers.

# Vaping





## **Big Business**

- Flavored vape sales up 60% in past 3 years, now 18 million vape products per month, and 40% of users are 25 and under.
- \$5.5 billion e-cigarette market in US, most are not authorized by the FDA.
- Some offer 5000 or more puffs and rising nicotine levels (equal to carton

of cigarettes.



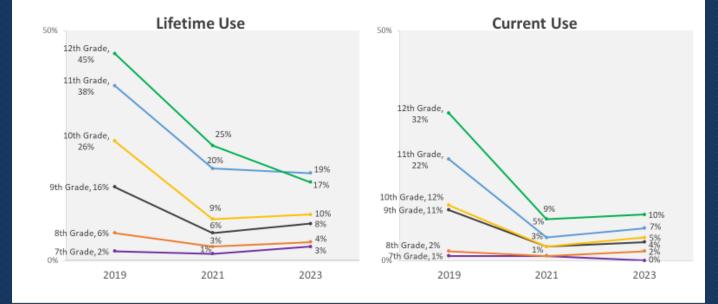
## Different Delivery Device, Same Problems

- Same tactics by those who have marketed cigarettes and cannabis.
  - Normalizing vaping on social media.
  - Colorful, fruit, ice cream and slushy flavors.
  - Not clearly a healthier way to use these substances.



#### **Belmont Data**

#### **ELECTRONIC VAPOR USE** by grade





- Caused by additives like vitamin E acetate, which has mostly been found in unregulated THC vapes.
- Shortness of breath, fever, chills, nausea and vomiting, chest pain.
- Hospitalization, antibiotics, steroids, breathing support. Some deaths reported.

## **Gateway Drugs?**

- Does use of cannabis or nicotine lead to other drug use? Is this a causal relationship?
- Most cannabis or nicotine users don't go on to using other drugs.
- But use of cannabis/nicotine/alcohol at a young age is worrisome.



## Nicotine



#### Nicotine

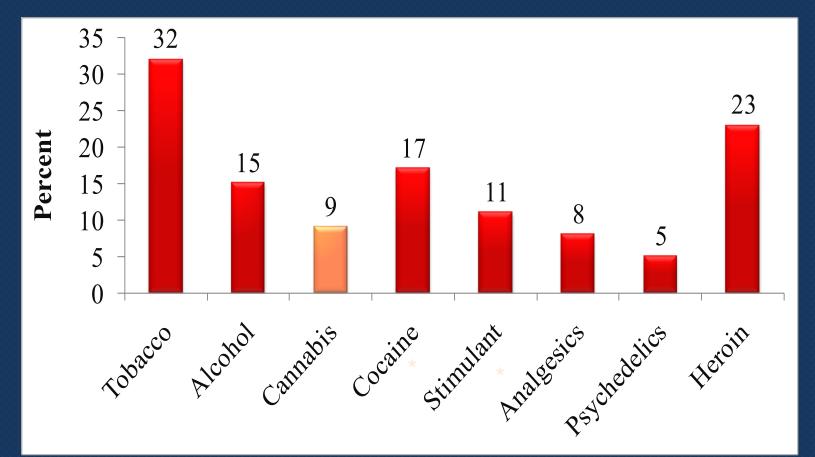
- Very addictive! Some would say it is the most difficult substance to quit.
- Sets precedent for needing a drug to feel normal.
- More likely that user will be willing to try other substances.

## Cannabis



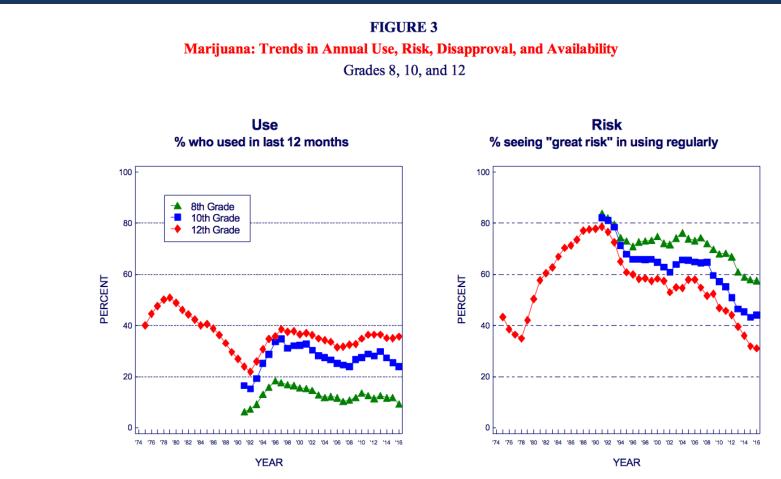
Development of Problems: About 9% of users may become dependent; 17% (1 in 6) who start use in adolescence

#### **Estimated Prevalence of Dependence Among Users**



Anthony JC et al., 1994 (Confirmed by Lopez-Quintero et al. 2011)

#### 12<sup>th</sup> Graders' Past Year Cannabis Use vs. Perceived Risk of Occasional Cannabis Use



SOURCE: The Monitoring the Future study, the University of Michigan.

#### Drug Effects: Acute and Chronic



#### **Implications on Youth Health**



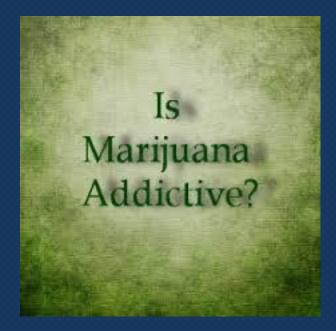
# Acute Adverse Effects of THC

- Impaired judgement.
- Impaired coordination and motor skills (driving).
- Memory loss and learning difficulties.
- Psychosis.



## Marijuana Myths

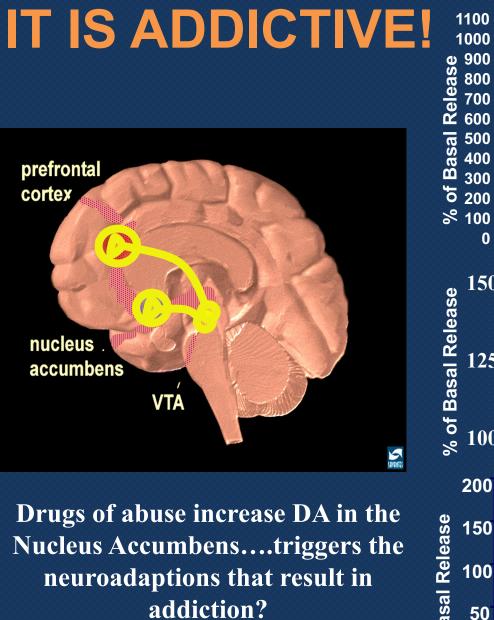
- Not Harmful
- Not Addictive
- No Withdrawal

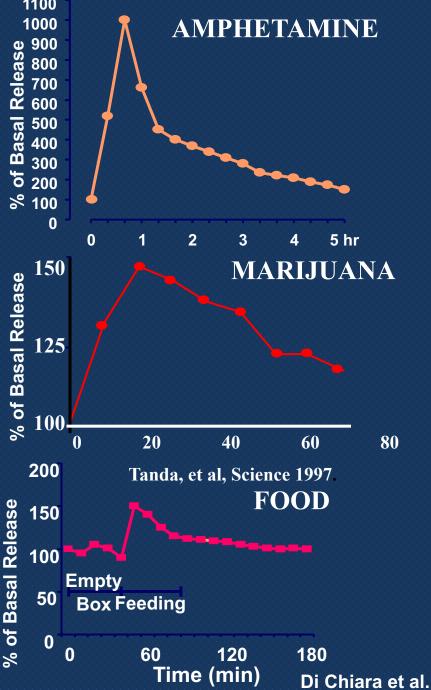


## **CHRONIC: DOSE MATTERS**

- Early onset poor cognitive function, IQ decline (Pope 2003, Gruber 2011, Meier 2012, Scott 2018)
  - Anxiety (Crippa 2009)
  - Depression (Degenhardt 2003, Gobbi 2019 meta-analysis)
- Suicidal ideation (Gobbi 2019)
- **T** Risk of psychosis (Kuepper 2011, Di Forti 2015)

Review of Cannabis and Psychiatric Disorders: Halah et al. Curr Addict Rep 2016



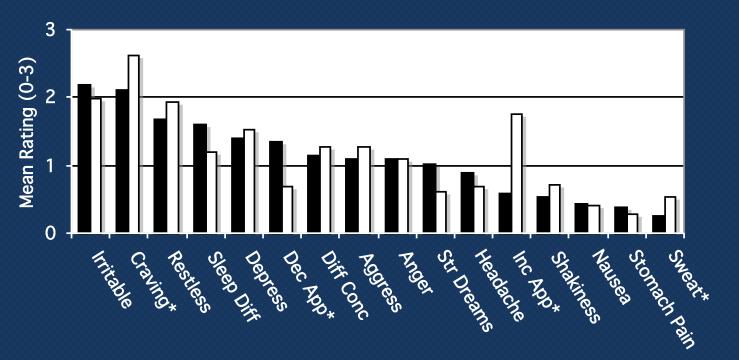


#### There is Withdrawal!

(Vandrey et al., 2005; Vandrey et al. 2008, Budney et al., 2009)

Symptom Severity

Cannabis 🗖 Tobacco



Withdrawal Checklist Symptoms



#### 3 students hospitalized after allegedly vaping marijuana at Colorado Springs middle school

Abbey Soukup abbey.soukup@gazette.com Oct 19, 2023 Updated 19 hrs ago



## Treatment

# How to have "the Conversation"

- Preparation.
- Conversation.
- Evaluation.
- Referral.



#### What to Look for

- Social problems caused by or worsened by cannabis or other substance.
- Gives up important activities.
- Use in dangerous situations.
- Use despite obvious physical, psychological problems.



## **Thorough Evaluation**

- Motivational interviewing.
- Careful history.
- Alliance.
- Recommendations.



Evidence-Based Treatment

#### Treatment Approach

Patient Readiness

# What does treatment look like?

- Most treatment is outpatient treatment.
- Get prospective patient to talk to somebody.
- Readiness/alliance work/family support.
- Medication if appropriate.

#### **Critical Period**

 We have done a good job of educating young people about alcohol and nicotine in the past and we need to act now to prevent a further increase in vaping.



#### Acknowledgments



