Multi-State Considerations for Youth Cannabis Prevention

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Disclosure

• No disclosures

• The findings and conclusions in this presentation are my own and do not necessarily represent the official position of any of the agencies with whom I consult.
Overview

• Why focus on adolescents?
• Health effects in youth
• Policy & youth
  – Product landscape
• Trends in youth use
• Public health challenges
• General approaches to date
• Future directions
Why is adolescence a critical period?

- Adolescence is a particularly critical period for cognitive development.
- Brain continues to develop and mature into the mid 20’s – especially the prefrontal cortex.
What do we know about the health effects of youth cannabis use?
Injury and Acute Effects

• Substantial evidence of risk of acute psychoses from over-consumption.
• Moderate evidence of risk of overdose injuries (respiratory distress) among pediatric patients.
• Substantial evidence of association between cannabis use and increase risk of motor vehicle crashes.
Moderate evidence of short term effects on cognition (memory, attention, and learning)

– Some evidence of improvement with cessation, in some cases, within days or weeks.
– Some evidence of longer term effects, but findings are inconsistent and confounded.
Limited evidence that cannabis use impairs academic achievement and educational outcomes

- Lots of confounding (age, parental education, etc.)
- Age of onset may play a role.
- Some studies indicate that higher frequency/duration of cannabis use has great impact.
Substantial evidence of increased risk of schizophrenia and other psychoses

- Directionality unclear
- May be more likely in those prone to psychoses
- More likely in those who initiate early and use frequently
Other mental health associations

- Moderate evidence of small increased risk in depressive disorders
- Moderate evidence of increased symptoms of mania/hypomania in those with bipolar
- Moderate evidence of association with suicide ideation, attempts, and completion, especially in heavier users.
- Moderate evidence of association with increased incidence of social anxiety disorder.
Problem cannabis use

– Substantial evidence that initiating cannabis use at an earlier age is a risk factor for developing problem use.

– Moderate evidence that, in adolescents, risk factors for problem cannabis use include:
  • frequency of cannabis use,
  • use of alcohol,
  • use of nicotine,
  • parental substance use,
  • poor school performance,
  • antisocial behavior, and
  • childhood sexual abuse
Problem use of other substances

- Limited evidence of any “gateway” effects

- Moderate evidence that cannabis use is associated with development of substance use disorder or dependence on other substances, including alcohol, tobacco, and other illicit drugs.
Research limitations

• Schedule 1 status
• Adolescents often not the population of focus in studies conducted to date.
• More challenging research population (parental consent, etc.)
• Lots of potential confounders (risk and protective factors).
How does the current cannabis policy landscape impact youth?
Cannabis policy in the U.S. and youth

- Adult use is illegal in all states for those less than 21 years of age
- Medical – caregiver for minors usually has to be 18 or 21
What products are youth using?

- Legalization = increase in available products
- Smoked is still most common mode...
  - Vapes
  - Edibles
  - Concentrates
- Flavors increasingly common
Major state policies aimed at youth

• Childproof packaging
• Product limitations (particularly edibles)
  – No gummies; limits on shapes/colors for gummies
  – No adulterated foods
  – No foods that look like commercially available products
• Packaging, labeling and universal symbol
• Advertising restrictions
• Drugged driving policies
What have the impacts of legalization been on youth cannabis use?
Past 30-day marijuana/hashish use, among 8th, 10th, and 12th graders, Monitoring the Future, 2000-2018
Past Month Marijuana Use (any) among 12-17 year olds – National Survey on Drug Use and Health (NSDUH), 2002-2017

Source: National Survey on Drug Use and Health, United States, 2002-2017
Trends in Past 30 Day Marijuana Use – Washington State, 10th Graders, Healthy Youth Survey

- **Have used marijuana at least once in their lifetime**
  - 2009: 43%
  - 2011: 39%
  - 2013: 37%
  - 2015: 38%

- **Have used marijuana at least once in the last 30 days**
  - 2009: 25%
  - 2011: 22%
  - 2013: 20%
  - 2015: 21%
Putting findings in context

• Policy change abounds
• Perceived risk of use has fallen significantly...

So why no increase in use?
• Too early to see effects?
• Access has actually gotten harder (esp. for 8\textsuperscript{th} and 10\textsuperscript{th} graders)...
• Other non-substance use “addictions”
The healthiest generation of youth....

Past month substance use, among 12th graders,
Monitoring the Future, 2000-2018
Other indicators to consider?

• Age of initiation
• Daily or near daily use
• Use with other substances

→ In addition to looking at data in the general population of users, we need to better identify, target, and monitor those at risk....
Substance use behaviors among high school students, by marijuana use status, National Youth Risk Behavior Survey, 2013-2015

All comparisons are significant at p<.0001

NMUPH= non-medical use of prescription

Unpublished data, Schauer et al., 2018, from YRBS
Other risk behaviors among high school marijuana users, by established and non-established use, National Youth Risk Behavior Survey, 2013-2015

All comparisons, except for suicide ideation, attempted suicide, and sexual dating violence are significant at p<.001 or p<.0001.
Challenges for public health in conducting youth work

• Political nature of cannabis
  – Lots of stakeholders, potentially differing views

• Limited research on what really works
  – Science is behind policy

• Limited funds for the work

• Changing products with youth appeal

• Pervasive industry advertising

• Social norm change (marijuana as medicine)

• Not like other substances
Supportive factors for youth prevention

• Stand alone retail stores and age verification
• No legal online sales
• Local control in every state
• General consensus among most stakeholders that youth prevention should be a priority for cannabis work
General approaches to date...

- Local policy work
- Mass reach media campaigns (general population)
- Attempts to counter social norms
- Messages for parents
- Public education in community/schools
Future directions

• Continued focus group work with youth:
  – Emerging products
  – Emerging science
  – Trusted messengers
• Targeting high risk youth (vs. general population)
• Considering intersections of risk behavior
• Appropriate messages to adults
Thank you!

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