Marijuana Education Initiative: New Approaches to Youth Education and Prevention

Presented by: Sarah Grippa, Co-Founder and CEO of the Marijuana Education Initiative

www.marijuana-education.com
Presentation Overview

• Introduction
• Changing Times = Changing Conversations
• Why Public Campaigns Alone Are Not Enough
• Filling the Gap Between Public Campaigns and Public Education
• Addressing Medicinal Marijuana
• The Positive Impacts of Collaboration
• Key Takeaways
Meeting Youth Where They Are At

- Youth today have come of age in a world of legalized marijuana.
- When it comes to marijuana, their reality is drastically different from what most of us experienced in our youth.
- We must change our messaging to meet youth at their reality.
Our Experience Vs. Their Experience
Source: Monitoring The Future National Survey Results on Drug Use, 2017 Overview
The University of Michigan Institute for Social Research http://www.monitoringthefuture.org
Why Public Campaigns Alone Are Not Enough
Don’t Be a Lab Rat – 2014
Colorado’s First Youth Campaign Following Legalization
Scientists can’t wait to see the negative effects it will have on your brain.
Discover it. Do it. Share it.
Big or small, your goals matter. Don’t let marijuana get in the way.

START SETTING GOALS
The Gap In Messaging

- The gap between campaigns and classrooms
- Missed opportunities for dialogue with trusted adults
- Empowering educators, mentors and parents with science-based information
As the physical, social and psychological “home away from home” for most youth, schools naturally assume a primary role in substance use education, prevention and early identification. School personnel often serve as highly influential role models by which preadolescents and adolescents judge themselves.

- American Academy of Pediatrics
Progressive Education

Filling the Gap Between Public Campaigns and Public Education
What Is Progressive Education?

- Moving past “Just Say No”
- Addressing marijuana as a legalized substance (in some states)
- Diving into advanced understanding of adolescent brain development to explain why youth substance use can be detrimental to the still developing brain
- Talking about the human endocannabinoid system
- Highlighting the important differences between adult use and youth use as well as the differences between medicinal use and recreational use
How Do We Integrate Progressive Education and What Does it Look Like?

What are Marijuana’s Impacts on the Developing Brain?
Development of the Prefrontal Cortex
Executive Functioning Skills

- Working Memory
- Reasoning
- Flexibility
- Problem Solving
- Planning
- Execution
Remodeling of the brain starts just before the teen years and continues well into the mid-twenties.

- Rapid Cell Growth
- Pruning
- Myelination
• **Pruning** is designed to “rewire” the brain connections into more adult-typical patterns.

• The classic “use it or lose it” principle applies to synaptic pruning.
Myelination is the process of forming a sheath around a neurons to allow impulses to move must faster.

Neural connections that are myelinated can function up to THREE THOUSAND times faster than un-myelinated connections.
Think of the brain as a system of highways
The Human Endocannabinoid System

Cannabinoid Receptors in the Brain

movement

sensation

judgment

reward

memory

coordination

© 2019 MARIJUANA EDUCATION INITIATIVE
Neurotransmitters are "messenger" chemicals in the brain. They travel to receptors, which are designed to receive them.
Neurotransmitters are like “keys”, and receptors are like “locks” in the brain.

When a neurotransmitter (key) is inserted into a receptor (lock), instructions are given to the neurons to regulate various brain and body functions.

If a key does not fit exactly into a lock, nothing happens.
Anandamide

- Your brain has receptors designed to receive a specific type of neurotransmitter called anandamide, which your body naturally produces.

- Anandamide is called the “bliss” molecule because it plays a role in alleviating pain and depression, regulating appetite, supporting healthy sleep cycles, and influencing memory.
Anandamide and THC
The Tale of Two Brains

A HEALTHY BRAIN
On SPECT, the surface of a healthy brain looks smooth with full and symmetrical blood flow and activity. This tells us that the brain is working the way it is supposed to.

AN UNHEALTHY BRAIN
This SPECT image of an unhealthy brain reveals inconsistencies on the surface, which represent areas of low blood flow and poor activity.

http://danielamenmd.amenclinics.com
Decreased Blood Flow and Activity

- 18-year-old with a 3-year history of 4×week marijuana use
- Decreased blood flow and activity in:
  - 1. prefrontal cortex (emotional regulation) and
  - 2. temporal lobes (long term memory)

http://danielamenmd.amenclinics.com

2019 North American Cannabis Summit
Remember the Highways?
Addressing Medicinal Marijuana

Why having the conversation in the classroom is so important
Jacks Law - 2016

- Jack's Law requires school districts to establish policy allowing students to have access to medical marijuana on school grounds.
This law allows school nurses, or other school personnel, to administer cannabis-based medicine to children for whom it is prescribed. The law does not require schools to administer medical marijuana to students, but it gives them the power to choose to do so.

The Colorado Association of School Nurses, however, opposed the bill, concerned that nurses could lose their licenses for violating federal law. After all, cannabis remains a Schedule 1 narcotic at the federal level.
The Positive Impacts of Collaboration

- Common Goals
- Hearing from the boots on the ground
- Authentic and Preventative Collaboration
- Community Partnerships
The Colorado Cannabis Manufacturers Association recognizes the importance of authentic and preventative collaboration between industry and youth serving organizations. Such organizations provide us with critical insight in how we can prevent cannabis products from entering the hands of youth, and in-turn, continues to help our businesses remain responsible actors within the communities we serve.

-Kevin Gallagher, Director of Compliance and Government Affairs – Craft Concentrates
We believe that responsible businesses should do their part in addressing social issues surrounding cannabis legalization. It is our responsibility to, along with legislators, regulators, youth-serving non-profits and other trusted adults, educate and help prevent youth use of cannabis. Through community partnerships like those with Denver Urban Scholars and the Marijuana Education Initiative, we support the development of age-appropriate information on cannabis to support youth prevention efforts.

-Shannon Fender – Director of Public Affairs, Native Roots Dispensary
The Power of Community Norms

Relationship between Marijuana Use and Perceived Parental and Community Norms, Grade 10, 2016

**What does this chart say?**

- Statewide, 10th graders are less likely to use marijuana if they believe their parents think it is wrong for them to use.
- Statewide, 10th graders are less likely to use marijuana if they believe their community thinks it is wrong for them to use.
Key Takeaways

- Meet Youth Where They Are At
- Use Progressive Science-Based Education to Fill the Gaps Between Campaigns and Classrooms
- Promote Collaboration Between The Cannabis Industry and Youth Serving Organizations To Address Social Issues Surrounding Cannabis Legalization