AGENDA

9:00 – Sign-in and introductions
9:15 – Marijuana
10:30 – Break
10:45 – Opioid Prevention
11:30 – Discussion & Wrap-Up
Marijuana: Preventing Youth Use

Juliet D’Alessandro, Healthy Communities Specialist
Today will cover:

• Marijuana Overview
  – Laws
  – Consumption
  – THC
• Impacts of Youth Marijuana Use
  – Brain impacts
  – Short- & long-term impacts
• Youth Prevention
• Questions & Discussion
Marijuana

• *Pot, weed, bud, grass, reefer, herb, or Mary Jane*

• Dried leaves, stems, and flowers of cannabis plant

• Delta-9-tetrahydrocannabinol (THC)
  – Active compound
  – Produces “high” feeling
  – Interacts w/the brain
  – **Drastically increased potency**
    ➢ 2 to 7 times stronger than 1970’s
Initiative 502

- Washington State legalized recreational marijuana in 2012
- First stores opened July 2014
- June 2016 medical stores combined w/retail

- “Legal-ish”
  - Only legal for adults 21 and older
  - Still illegal for youth under age 21 to use or possess marijuana
  - Still a federal crime
Laws for Adult Use

Adults age 21+ can legally purchase & possess:
- 1 ounce of usable marijuana
- 16 ounces of marijuana-infused edibles
- 72 ounces of marijuana in liquid form
- 7 grams of marijuana concentrates

- It is illegal to consume marijuana in any form in public
- It is illegal to take marijuana outside of WA State
- It is illegal to drive under the influence of marijuana
- Open container laws apply to marijuana too!
- Providing marijuana to anyone under 21—even own children, in own home—is a felony
Sales and Advertising Restrictions

• No retail stores allowed within 1,000ft of:
  – Elementary or secondary school
  – Public playground

• No marijuana leaf image or cartoons allowed in advertisement; can’t appeal to kids

• Business limited to two signs; 1,600 in²

• Billboards can contain information only
Ways Marijuana is Consumed

- **Smoked/Vaped (plant material)**
  - Joint, blunt, pipe, bong, hookah

- **Ingested ("edibles")**
  - Cookies, brownies, candy, drinks

- **Vaporized (concentrates)**
  - Vaping, "dabs" or "dabbing"
Medical Marijuana

• Used for conditions like cancer, AIDS, epilepsy, glaucoma, PTSD, Crohn’s, Parkinson’s

• Often lower in THC, higher in CBDs

• Oils, tinctures, creams, ointment
  – No psychoactive effect
Do you know ADULTS who use?

Do you know YOUTH who use?
Youth Marijuana Use

In 2016, how many youth in Snohomish County had ever tried marijuana?

• 9.6% of 8th grade students

• 24.7% of 10th grade students

• 44.5% of 12th grade students
Youth Marijuana Use
Snohomish County, 2016

Ever Used
- 8th Grade: 10%
- 10th Grade: 25%
- 12th Grade: 45%

Current Use (30-day)
- 8th Grade: 8%
- 10th Grade: 16%
- 12th Grade: 27%
Why Prevent Youth Use?

- Brains continue to develop until age 25, so marijuana can affect youth very differently than adults.
THC & the Brain

Presynaptic (sending neuron)

Cannabinoid Receptor

Neurotransmitters

Cannabinoids

Postsynaptic (receiving neuron)

Receptors

Brain's Chemical

Anandamide

Drug

THC
How does THC affect behavior? It depends on where the CB receptors are in the brain.

<table>
<thead>
<tr>
<th>Brain Structure</th>
<th>Regulates</th>
<th>THC Effect on User</th>
</tr>
</thead>
<tbody>
<tr>
<td>Amygdala</td>
<td>emotions, fear, anxiety</td>
<td>panic/paranoia</td>
</tr>
<tr>
<td>Basal Ganglia</td>
<td>planning/starting a movement</td>
<td>slowed reaction time</td>
</tr>
<tr>
<td>Brain Stem</td>
<td>information between brain and spinal column</td>
<td>antinausea effects</td>
</tr>
<tr>
<td>Cerebellum</td>
<td>motor coordination, balance</td>
<td>impaired coordination</td>
</tr>
<tr>
<td>Hippocampus</td>
<td>learning new information</td>
<td>impaired memory</td>
</tr>
<tr>
<td>Hypothalamus</td>
<td>eating, sexual behavior</td>
<td>increased appetite</td>
</tr>
<tr>
<td>Neocortex</td>
<td>complex thinking, feeling, and movement</td>
<td>altered thinking, judgment, and sensation</td>
</tr>
<tr>
<td>Nucleus Accumbens</td>
<td>motivation and reward</td>
<td>euphoria (feeling good)</td>
</tr>
<tr>
<td>Spinal Cord</td>
<td>transmission of information between body and brain</td>
<td>altered pain sensitivity</td>
</tr>
</tbody>
</table>

The brain structures illustrated above all contain high numbers of CB receptors

FROM SCHOLASTIC AND THE SCIENTISTS OF THE NATIONAL INSTITUTE ON DRUG ABUSE, NATIONAL INSTITUTES OF HEALTH, U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES
Short-term Impacts

- Coordination
- Judgment
- Thinking & problem-solving
- Learning
- Memory
- Attention
- Paranoia
- Hallucinations
Longer-term Impacts

- Anxiety & Depression
  - Increased risk &/or worse symptoms
- Poor academic performance
  - Worse grades
  - Increased high school dropout
- Loss of IQ points
- Problems with memory, recall & learning
Physical Health Impacts

• Marijuana smoke contains many of the same toxins, carcinogens and irritants as cigarette smoke

• Leaves more tar in lungs than cigarette smoke

• Causes respiratory problems such as:
  – Bronchitis (chronic and acute)
  – Persistent cough
  – Wheezing

• Increased heart rate
Marijuana IS Addictive

• Use can lead to dependence and addiction
  • Dependence ➔ when the brain adapts to large amounts of marijuana by reducing production of and sensitivity to its own endocannabinoid neurotransmitters.
  • Addiction ➔ when a person cannot stop using marijuana even though it interferes with many aspects of his or her life.
Addiction, continued

• More likely for youth who use frequently, start using at a younger age, and use for longer periods of time
  – Daily youth users → 50% at risk

• Frequent users experience withdrawal symptoms
  – Physical symptoms
  – Blunted dopamine response
Other Consequences

• School suspension
• Drug treatment programs
• Legal consequences
  – Driver’s license suspension
  – Record
• Social consequences
What contributes to youth MJ use?

• 3 big factors:
  – Availability
    ▪ Is it easy to get?
  – Social & Community Norms
    ▪ What do peers, parents and other adults think?
  – Perceived Harm
    ▪ Is it risky to try?
    ▪ Is it risky to use regularly?
Youth Perceptions of Marijuana
Snohomish County, 2016
What can parents & adults do?

• Start talking early! Teens who use marijuana often start by age 14.

• Set clear, specific rules around marijuana. Discuss these expectations often!

• Be open and honest about the risks of marijuana, and why you want to help them stay healthy.

• Role play to help teens practice saying “no” to drugs.

• Help reinforce the idea that NOT everyone their age is using. Most teens don’t use marijuana!
What is the Health District doing?

- Parent education
- Youth education via media
- Retailer partnerships
- Serving as a resource for the community
What’s Needed in MJ Prevention?

• RESEARCH!

• More time in a legalized landscape

• Sustained funding for prevention work
More information

• www.youcanwa.org

• National Institute on Drug Abuse (NIDA)
  – www.drugabuse.gov

• Teen help resource (chat & text too!)
  – Teen Link www.866teenlink.org