Trends in Substance Use and Mental Health Among Youth

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Addiction Counselor Disclosure

I am not here to diagnose, judge, evaluate, or criticize any adult drug or alcohol use. 😊

I am here to talk about youth, so please to not get defensive or start to self-diagnose. If you are an adult your use is your business.
Objectives

• Review the Diagnostic and Statistical Manual of Mental Disorders (DSM-5) for Substance Use Disorder.
  15 minutes

• Identify the latest drug trends impacting youth specifically: nicotine, marijuana, and opiates.
  20 minutes

• Discuss co-occurring substance use and mental health disorders.
  15 minutes

• Describe treatment options for substance use and co-occurring disorders as well as latest uses of Narcan and how to access it in King County.
  10 minutes
Substance Use Disorder

11 Criteria,
Diagnostic and Statistical Manual of Mental Disorders,
Fifth Edition (DSM 5)

Mild (2-3 symptoms present)
Moderate (4-5 symptoms)
Severe (6+ symptoms)
SUD criteria

Physiological, Psychological, Behavioral and Functional impairments.

1. Substance is often taken in larger amounts or over a longer period than intended.

2. There is a persistent desire or unsuccessful efforts to cut down or control substance use.

3. A great deal of time is spent in activities necessary to obtain, use or recover from the effects of the substance.

4. Craving, or a strong desire or urge, to use the substance.

5. Recurrent substance use resulting in a failure to fulfill major role obligations at work, school, or home.

Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition
6. Continued substance use despite having persistent or recurrent social or interpersonal problems caused or exacerbated by the effects of the substance.

7. Important social, occupational or recreational activities are given up or reduced because of substance use.

8. Recurrent substance use in situations in which it is physically dangerous.

9. Substance use is continued despite knowledge of having a persistent or recurrent physical or psychological problem that is likely to have been caused or exacerbated by the substance.

Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition
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Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition
10. Tolerance, as defined by either of the following:
   a. A need for markedly increased amounts of the substance to achieve intoxication or the desired effect.
   b. A markedly diminished effect with continued use of the same amount of the substance.

11. Withdrawal, as manifested by either of the following:
   a. The characteristic withdrawal symptoms for the substance.
   b. The substance (or a closely related substance) is taken to relieve or avoid withdrawal symptoms.

Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition
Diagnostic Criteria: Cannabis Withdrawal DSM-5 292.0 (F12.13)

A. Cessation of cannabis use that has been heavy and prolonged (i.e., usually daily or almost daily use over a period of at least a few months).

B. Three (or more) of the following signs and symptoms develop within approximately 1 week after,
   Criterion A:
   1. Irritability, anger, or aggression.
   2. Nervousness or anxiety.
   3. Sleep difficulty (e.g., insomnia, disturbing dreams).
   4. Decreased appetite or weight loss.
   5. Restlessness.
   6. Depressed mood.
   7. At least one of the following physical symptoms causing significant discomfort: abdominal pain, shaking/tremors, sweating, fever, chills, or headache.

C. The signs or symptoms in Criterion B cause clinically significant distress or impairment in social, occupational, or other important areas of functioning.

D. The signs or symptoms are not attributable to another medical condition and are not better explained by another mental disorder, including intoxication or withdrawal from another substance.
Drug Trends Cannabis: Potency

• Cannabis markets are dominated by high-potency cannabis (high in Δ-9-tetrahydrocannabinol [THC] and low in cannabidiol), with THC content steadily increasing worldwide.

• THC is the main psychoactive component responsible for the feeling of getting high that users seek. Cannabidiol is non-intoxicating and has been found to offset the harmful effects of THC.

• Compared with low-potency cannabis, high-potency cannabis appears to be associated with a greater risk of psychotic symptoms, depression, anxiety, and cannabis dependence, especially in adolescence.

Effects of increasing cannabis potency on adolescent health. Wilson J, Freeman TP, Mackie CJ - Lancet Child Adolescent Health - February 7, 2021; 3 (2); 121-128
Percentage of THC and CBD in cannabis samples seized by the DEA from 1995-2019

National Institute on Drug Abuse
Drug Trend Cannabis: Route of Administration

Smoking
Vaping
Dabbing
Edibles/Drinkables
Creams
Tinctures (dissolvable)

According to an analysis of survey data the percentage of high school seniors who vape marijuana increased from 7.5 to 14 percent between 2018 and 2019.

Drug Trends Cannabis: Vape Concentrates

- Vape concentrates is the process of extracting THC removing all the marijuana leaves and impurities while retaining the cannabinoids and terpenes (oils).

- These devices are often called “carts” (cartridge).

- Easy to use and do not smell.

- Most are high in THC (50-90%)
Drug Trends Cannabis: What is Dabbing

Cannabis dabbing involves inhaling concentrated extracts of hashish oil created using a butane solvent.

- **Dabbing**: refers to the behavior of heating the extract on a device and inhaling the resulting vapor, often resulting in a very large and immediate dose of THC.

- **Dab Pen**: A dab pen is something which is used purely for the consumption of dabs. The dabs are placed directly onto the coils and heated so it melts down onto a wick which then absorbs the product. The wick then heats up the material to create a vapor which is then inhaled.

50-90% THC


The 2018 Farm Bill legalized all derivatives from hemp. D8, which is derived from hemp, became legal on a federal level because of this bill.

Delta-8 THC is a naturally occurring cannabinoid and close structural analog of delta-9 THC.

LCB updated policy statement describes “the process of synthetically deriving delta-8 THC from CBD or hemp may generate additional chemicals that are not naturally occurring in cannabis. The impact of those different chemicals on health are unknown and could be harmful.”

In states where the sale of delta-8 THC is not restricted, the product is often available at tobacco shops and convenience stores in various formulations including vape cartridges, dried plant or “flower”, and gummies.
As of February 18, 2020, a total of 2,807 hospitalized EVALI cases and 68 deaths have been reported to CDC from all 50 states, the District of Columbia, and two U.S. territories (Puerto Rico and U.S. Virgin Islands).

• Laboratory data show that vitamin E acetate, an additive in some THC-containing e-cigarette, or vaping, products, is strongly linked to the EVALI outbreak.

• CDC and FDA recommend that people not use THC-containing e-cigarette, or vaping, products, particularly from informal sources like friends, family, or in-person or online dealers.
Drug Trends Cannabis: Cannabinoid Hyperemesis Syndrome (CHS)

A condition that leads to repeated and severe bouts of vomiting. It is rare and only occurs in daily long-term users of marijuana.

You may have CHS if you have all of these:
- Long-term weekly and daily marijuana use
- Belly pain
- Severe, repeated nausea and vomiting
- You feel better after taking a hot shower
- There is no single test that confirms this diagnosis
  Only improvement after quitting marijuana confirms the diagnosis

Drug Trends Cannabis: Mental Health

Drugs are often used to

• Temporarily change someone’s mood: fun, experimentation, boredom
• Cope with difficult emotions
• Self-medicate the symptoms of mental health problems and ease the symptoms of an undiagnosed mental disorder
**Drug Trends Nicotine: What are e-cigarettes/vapes?**

**Main Components:**
1. Battery
2. Heating Element
3. Cartridge/Tank

*Salt-based nicotine contains Benzoic acid allows higher concentration of e-liquid

**E-Liquid often contains**
1. Liquid nicotine
2. Propylene glycol: (helps aerosolize the nicotine)
3. Vegetable glycerin: (helps aerosolize)
4. Flavoring

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**Diagram:**
- Rechargeable Battery
- Power button (to start vaping)
- Mouthpiece
- Atomizer/Heating Element (heats solution, aerosolizing nicotine)
- E-Liquid Tank (refillable tank)
Drug Trends Nicotine: Evolution of the e-cigarette

Flip Phone → iPhone 11

- Minis/Cigalikes
- Vape Pen
- Box Mod
- JUUL
- Pod Vapes
- Disposable salt-based
Drug Trends Nicotine: Studies
(EC = Electronic Cigarettes v TC – Traditional Cigarettes)

**Cardiovascular Effects of Switching From Tobacco Cigarettes to Electronic Cigarettes:**
TC smokers, particularly females, demonstrate significant improvement in vascular health within 1 month of switching from TC to EC.


**Exclusive E-Cigarette Users Report Lower Levels of Respiratory Symptoms Relative to Dual E-Cigarette and Cigarette Users**
People that switch exclusively to e-cigarettes have lower levels of respiratory symptoms than people that use e-cigarettes and continue to smoke traditional cigarettes.


**Cardiovascular impact of electronic-cigarette use.**
ECs may be a reasonable strategy for TC smoking cessation, but the message to non-TC smokers must be clear and unwavering: non-TC-smokers should not use ECs - they are not harmless.


- Data from the 2019 Monitoring the Future Survey of 8th, 10th and 12th graders showed alarmingly high rates of e-cigarette use compared to 2017 and 2018, with rates doubling in the past two years. - National Institute on Drug Abuse
Drug Trends: Opiates

Drug & Alcohol Poisoning Deaths, King County
(Note: Bar chart can be viewed in terms of counts or rates; each decedent with a toxicology-confirmed overdose death is represented once.)

Drugs Involved
- Probable OD (pending)
- Alcohol Only
- *Other drug (no opioid)
- *Stimulant (no opioid)
- *Opioid and stimulant
- *Opioid (no stimulant)

Opioid = Fentanyl, Heroin, and/or Rx Opioids
Stimulant = Meth. and/or cocaine
*May also include sedating drugs and/or alcohol.

Opioid
- No
- Yes

Drug Trends: Opiates

- A lot of Street drugs contain Fentanyl.
- Vicodin, Oxycodone, Oxytocin, and Heroin.
- It’s not just OPIATES! Meth, Cocaine, Ecstasy, Xanax and other street drugs are often cut with fentanyl.
- King County - M30 Pills
- If it doesn’t come from a pharmacy, assume it has fentanyl.

King County Overdose deaths under 20 years old

<table>
<thead>
<tr>
<th>Year</th>
<th>Single digit</th>
</tr>
</thead>
<tbody>
<tr>
<td>2008-2017</td>
<td>Single digit</td>
</tr>
<tr>
<td>2018</td>
<td>4</td>
</tr>
<tr>
<td>2019</td>
<td>13</td>
</tr>
<tr>
<td>2020</td>
<td>23</td>
</tr>
<tr>
<td>2021</td>
<td>17 (so far)</td>
</tr>
</tbody>
</table>

Treatment Options: Narcan

- Naloxone, (Narcan is the brand name of the generic drug naloxone), is a medication to reverse an opioid overdose.

- It is legal for anyone in Washington State to obtain, carry and administer naloxone. Open prescription at all WA state pharmacies.

- Confidentially order online to have naloxone mailed to any address. It even arrives in plain packaging to protect your privacy. [https://www.kelley-ross.com/polyclinic/ll/](https://www.kelley-ross.com/polyclinic/ll/)

Google: Laced & Lethal King County for more info
Co-occurring Disorders
Co-occurring disorders & Adolescence

Sleep issues
Mood swings
Difficulty in school
Arguments with friends, siblings or family
Trouble keeping a job
Changing/Stopping activities
Impulsive behavior
Changes in clothing or appearance

Is this a mental health disorder, substance use disorder or being a teenager?
<table>
<thead>
<tr>
<th>Substance use Disorders</th>
<th>Mental Health Disorders</th>
</tr>
</thead>
<tbody>
<tr>
<td>Temperament, genetics and environment contribute</td>
<td></td>
</tr>
<tr>
<td>Entire family is impacted by illness</td>
<td></td>
</tr>
<tr>
<td>Leads to feelings of despair and failure</td>
<td></td>
</tr>
<tr>
<td>Often seen as a moral issue</td>
<td></td>
</tr>
<tr>
<td>Inability to control behavior and emotions</td>
<td></td>
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<tr>
<td>Progresses without treatment</td>
<td></td>
</tr>
<tr>
<td>Both are often stigmatized</td>
<td></td>
</tr>
</tbody>
</table>
Co-occurring Disorders: How to tell what is what?

- Overlapping Risk Factors
- Self-Medicating
- Drug-Induced Brain Changes
Treatment: Models

Abstinence

Harm reduction

Medication Assisted Treatment (MAT)
### Treatment: Washington State Options

#### Substance Use Treatment

<table>
<thead>
<tr>
<th>Inpatient</th>
<th>Sundown M Ranch – Adult and Youth Male and Female</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>SeaMar Renacer/Visions – Youth Seattle (male) Bellingham (female)</td>
</tr>
<tr>
<td></td>
<td>Daybreak – Youth Vancouver (Male) Spokane (Female)</td>
</tr>
<tr>
<td></td>
<td>Excelsior – Youth Spokane (Male)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Outpatient</th>
<th>Bridges Alternative Peer Group – Youth and Young Adults in Seattle</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Ryther Child Center – Assessments and Outpatient</td>
</tr>
<tr>
<td></td>
<td>Therapeutic Health Services – Adult and Youth Assessments, Groups, MAT</td>
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</tbody>
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| Self-Help Groups | Free and Everywhere |
Treatment: Ricky’s Law & Fit (Family Initiated Treatment)

Can we get a Substance Use Disorder patient “mandated” to treatment?

Yes – Ricky’s Law, Community members who are a danger to themselves or others, other’s property, or gravely disabled due to a drug or alcohol problem may be involuntary detained to a secure withdrawal management and stabilization facility—also known as secure detox.

Excelsior Youth Center in Spokane – 8 beds for minors in Washington

Yes – There is Family Initiated Treatment for youth in WA State but not many SUD Treatment centers are secure.
What year did the American Medical Association deem Alcoholism an Illness?

1956

The American Medical Association deemed alcoholism as an illness, based on the theory that excessive drinking and alcohol addiction is caused by a disease of the brain, based on the structure and function of the brain.

Alcoholics Anonymous (AA) was founded in 1935 by Bill Wilson (known as Bill W.) and Robert Smith (known as Dr. Bob).
Questions?
Available Resources

- **Washington State Recovery Helpline**: Can help providers, families or patients identify services in their area.

- **Teen Link** (866-833-6546): Teens may call between 6 and 10 p.m. or chat/text from 6 to 9:30 p.m. The Teen Link help line is answered by professionally trained youth volunteers.

- **Safe Medicine Storage and Disposal to Prevent Misuse** (Seattle Children’s community education).

- Washington Department of Health has a **Safe Medication Return Program** that offers free disposal options via drop-off site or mail. Free take-back locations across the state can be found through [takebackyourmeds.org](http://takebackyourmeds.org).

- **Kelley-Ross Pharmacy at the Polyclinic**: Provides at-home naloxone kits that can be mailed to a home. Naloxone is an antidote for opiate overdose.
Thank You

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