Alcohol & Opioid Use Disorders
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• Review epidemiology of chronic diseases of opioid use disorder (OUD) and alcohol use disorder (AUD)
• Define addiction, recovery, and substance use disorder per DSM
• Discuss role of medications for OUD and AUD
• Dispel myths related to medications for OUD and AUD

--no disclosures or conflicts of interest--
Drug Overdoses Killed A Record Number Of Americans In 2020, Jumping By Nearly 30%
Overdose deaths exploded to more than 90,000 in 2020, and synthetic opioids were involved in more than 60 percent of all overdose deaths.

Annual drug overdose deaths

<table>
<thead>
<tr>
<th>Year</th>
<th>Total overdose deaths</th>
<th>All opioid deaths</th>
<th>Synthetic opioid deaths</th>
</tr>
</thead>
<tbody>
<tr>
<td>2015</td>
<td>52,404</td>
<td>33,091</td>
<td>9,580</td>
</tr>
<tr>
<td>2016</td>
<td>63,632</td>
<td>42,249</td>
<td>19,413</td>
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<tr>
<td>2017</td>
<td>70,237</td>
<td>47,600</td>
<td>28,466</td>
</tr>
<tr>
<td>2018</td>
<td>67,367</td>
<td>46,802</td>
<td>31,335</td>
</tr>
<tr>
<td>2019</td>
<td>70,630</td>
<td>49,860</td>
<td>36,359</td>
</tr>
<tr>
<td>2020</td>
<td>93,331</td>
<td>57,550</td>
<td>69,710</td>
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</tbody>
</table>

Note: Synthetic opioid deaths exclude those from methadone. Specific drug-class deaths are not mutually exclusive, as some deaths are attributable to multiple drug types.


Any Drug-Related Overdose Death
The rate of drug-related overdose deaths among Idaho’s seven public health districts range from 8.2 to 20.4 deaths per 100,000 residents.

Drug Overdose Deaths
The rate of overdose deaths among Idaho residents has increased from 2014 to 2019.

Opioid Prescriptions (excluding buprenorphine)
The rate of opioid prescriptions (per 1,000 residents) has decreased from 2015 to 2019.

Above is a map displaying the 2019 Crude Rate of all drug-related overdose deaths by place of residence per 100,000 Idaho residents in each of Idaho’s seven public health districts.

https://www.gethealthy.dhw.idaho.gov/drug-overdose-dashboard
CDC’s Unique Work In Action: Overdose Deaths are the Tip of the Iceberg

For every 1 prescription or illicit opioid overdose death in 2015 there were...

- 18 people who had a substance use disorder involving heroin
- 62 people who had a substance use disorder involving prescription opioids
- 377 people who misused prescription opioids in the past year
- 2,946 people who used prescription opioids in the past year


Current, Binge, and Heavy Alcohol Use: Among People Aged 12 or Older; 2020

Note: Binge Alcohol Use is defined as drinking five or more drinks (for males) or four or more drinks (for females) on the same occasion on at least 1 day in the past 30 days. Heavy Alcohol Use is defined as binge drinking on the same occasion on 5 or more days in the past 30 days; all heavy alcohol users are also binge alcohol users.
DRINKING IN MODERATION:

1 drink or less in a day for women
2 drinks or less in a day for men

12 ounces 5% ABV beer
8 ounces 7% ABV malt liquor
5 ounces 12% ABV wine
1.5 ounces 40% ABV (80 proof) distilled spirits

(examples: gin, rum, vodka, whiskey)
Alcohol Use Disorder (AUD) and Illicit Drug Use Disorder (IDUD) in the Past Year: Among People Aged 12 or Older with a Past Year Substance Use Disorder (SUD); 2020

- 28.3 Million People with AUD (70.3% of People with SUD)
- 18.4 Million People with IDUD (45.7% of People with SUD)
- 6.5 Million People with AUD and IDUD (16.0% of People with SUD)
- 11.9 Million People with IDUD Only (29.7% of People with SUD)
- 21.9 Million People with AUD Only (54.3% of People with SUD)

40.3 Million People Aged 12 or Older with Past Year SUD
More than 95,000 people die from excessive alcohol use in the U.S. each year.
190 deaths/day in 2020

death every day from an opioid overdose (including Rx and illicit opioids).

There are 261 deaths each day in the U.S. due to excessive alcohol use.
What is Addiction?

• “a primary, **chronic disease** of brain reward, motivation, memory and related circuitry... 
• ...pathologically pursuing reward and/or relief of withdrawal symptoms by substance use... 
• ...Without treatment or engagement in recovery, addiction is progressive and **can result in disability or death.**”
What is Recovery?

• “a process of **sustained action** that addresses the biological, psychological, social and spiritual disturbances...

• ...aims to improve the quality of life...

• ...is the consistent **pursuit** of abstinence.”
What is Substance Use Disorder?

**SUD is the chronic disease of addiction to X**

<table>
<thead>
<tr>
<th>Criterion</th>
<th>Severity</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Use in larger amounts or for longer periods of time than intended&lt;br&gt;• Unsuccessful efforts to cut down or quit&lt;br&gt;• Excessive time spent using the drug&lt;br&gt;• Intense desire/urge for drug (craving)</td>
<td>0-1: No diagnosis&lt;br&gt;2-3: Mild SUD&lt;br&gt;4-5: Moderate SUD&lt;br&gt;6+: Severe SUD</td>
</tr>
<tr>
<td>• Failure to fulfill major obligations&lt;br&gt;• Continued use despite social/interpersonal problems&lt;br&gt;• Activities/hobbies reduced given use</td>
<td></td>
</tr>
<tr>
<td>• Recurrent use in physically hazardous situations&lt;br&gt;• Recurrent use despite physical or psychological problems caused by or worsened by use</td>
<td></td>
</tr>
<tr>
<td>• Tolerance&lt;br&gt;• Withdrawal</td>
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</tbody>
</table>
Medication for Addiction Treatment

**Tobacco**
- Nicotine Replacement
- Bupropion
- Varenicline

**Alcohol**
- Naltrexone
- Acamprosate
- Disulfiram

**Opioid**
- Methadone
- Buprenorphine
- Naltrexone
Medications for OUD

Harm Reduction

Medication for Opioid Use Disorder

- Psychosocial Interventions
- Housing, Employment, Mental Healthcare
- Recovery Support
Medications for OUD

**Opioid Agonist Therapy**
- Methadone
- Buprenorphine

**Opioid Antagonist**
- Extended-release Naltrexone
Medications for OUD
• Once monthly intramuscular injection
• Blocks intoxicating/reinforcing effects of opioids
• Some interest pre-release
• High rates of return to use, limited evidence
• *Increased risk of overdose after antagonist wears off*
• *No evidence that saves lives*

Opioid Antagonist

Extended-release Naltrexone

Opioid Agonist Therapy

Methadone

- Reduce withdrawal symptoms & cravings
- Prevent return to use → Allow brain to heal

Buprenorphine

↓ MORTALITY ↓ ER/hospital ↓ HIV/HCV ↓ substance use
↓ Criminal activity ↑ retention in treatment

<table>
<thead>
<tr>
<th>Methadone</th>
<th>Buprenorphine</th>
</tr>
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<tbody>
<tr>
<td>Full agonist</td>
<td>Partial agonist</td>
</tr>
<tr>
<td>Typical dose 80-120mg/d</td>
<td>Typical dose 16mg/d</td>
</tr>
<tr>
<td>Opioid Treatment Program</td>
<td>Office based (prescription)</td>
</tr>
<tr>
<td>(daily dosing)</td>
<td>Managed like any other chronic illness</td>
</tr>
<tr>
<td>Stigma</td>
<td>More risky, especially during induction phase</td>
</tr>
<tr>
<td></td>
<td>Protected from overdose (ceiling effect, tight bond)</td>
</tr>
<tr>
<td>Better for patients who need</td>
<td>Bound to naloxone to prevent diversion/misuse;</td>
</tr>
<tr>
<td>structure, heavier opioid use</td>
<td>injectable &amp; implant also available</td>
</tr>
</tbody>
</table>

Opioid Agonist Therapy
HHS Releases New Buprenorphine Practice Guidelines, Expanding Access to Treatment for Opioid Use Disorder

In an effort to get evidenced-based treatment to more Americans with opioid use disorder, the Department of Health and Human Services (HHS) is releasing new buprenorphine practice guidelines that among other things, remove a longtime requirement tied to training, which some practitioners have cited as a barrier to treating more people.

Signed by HHS Secretary Xavier Becerra, the Practice Guidelines for the Administration of Buprenorphine for Treating Opioid Use Disorder exempt eligible physicians, physician assistants, nurse practitioners, clinical nurse specialists, certified registered nurse anesthetists and certified nurse midwives from federal certification requirements related to training, counseling and other ancillary services that are part of the process for obtaining a waiver to treat up to 30 patients with buprenorphine.
• **Myth:** Medications are a “crutch” and the goal should be for a person to taper off medication as quickly as possible

• **FACT:** Addiction is a chronic disease and requires long-term treatment, just like diabetes or high blood pressure. Many clients may require medications for years to life. There is no one-size-fits-all length of time, or medication dose
• **MYTH:** Taking a medication for opioid use disorder, like methadone or buprenorphine, is just replacing one addiction with another. People who take these medications are not really “drug-free” and are not in recovery.

• **FACT:** There is a difference between physical dependence on a medication and addiction. The disease of addiction involves negative consequences of drug use.
Myth 2

Addiction

- Escalating use over time
- Loss of control; inability to stop
- Use despite negative consequences
- Unable to fulfill societal obligations

Dependence

- Presence of withdrawal symptoms if substance stopped abruptly

Methadone and buprenorphine result in physical dependence but not addiction.

Slide credit: Dr. John Giftos, former Clinical Director, SUD Treatment, Correctional Health Services, Rikers Island, NYC Health & Hospitals; current Medical Director for Addiction Medicine & Drug User Health, Project Renewal
• **MYTH:** Patients with OUD should not be treated with medications unless they are also plugged into counseling.

• **FACT:** Prescribers must have the ability to refer patients with OUD to counseling, but patients do not have to go. All patients with OUD do not need counseling; many patients do well with medications alone. Buprenorphine and methadone are life-saving; life-saving medications should not be withheld because someone chooses not to pursue counseling.

Treatment for AUD

Harm Reduction

- Psychosocial Interventions
- Housing, Employment, Mental Health Care
- Recovery Support
- Medications for AUD
Medications for AUD

First Line
- Naltrexone
- Acamprosate

Second Line
- Disulfiram
Medications for AUD

- **Mechanism:** interferes with breakdown of alcohol metabolite, causing severe physical reaction when alcohol consumed
- **Dosing:** one tab daily
- **Side effects:** hepatotoxicity, peripheral neuropathy, metallic taste
- **Outcomes:** may increase abstinence if motivated and DOT (but poor adherence typical)

Second Line

Disulfiram

Medications for AUD

First Line

Naltrexone

- **Mechanism:** blocks opioid receptors involved in rewards and craving
- **Dosing:** one tab daily, or IM monthly
- **Side effects:** hepatotoxicity, nausea
- **Outcome:** increase in abstinence, reduction in heavy drinking; possible better outcomes in treatment court

Medications for AUD

- **Mechanism:** blocks symptoms of protracted withdrawal
- **Dosing:** two tabs three times daily
- **Side effects:** diarrhea, tired, rare SI
- **Outcome:** increase in abstinence

Acamprosate

Medications for AUD

- **Mechanism:** normalizes stress-induced GABA activation
- **Dosing:** two tabs three times daily
- **Side effects:** fatigue, insomnia, headache
- **Outcome:** increase in abstinence
- **Other non-FDA approved meds:** ondansetron, topiramate
• **Myth:** Medications are a “crutch” and the goal should be for a person to taper off medication as quickly as possible

• **FACT:** Addiction is a chronic disease and requires long-term treatment, just like diabetes or high blood pressure. Many clients may require medications for years to life. There is no one-size-fits-all length of time, or medication dose.
Myth 2

• **MYTH:** These medications do not guarantee abstinence so are not worth pursuing.

• **FACT:** If these medications can delay a return to use or reduce heavy use, that is a success. Alcohol use disorder is difficult to treat and long and short-term complications are significant.
Summary

• Opioid overdose epidemic is real and worsening; medications for OUD (specifically methadone and buprenorphine) are life-saving

• Annual deaths from alcohol use disorder exceed all overdose deaths combined, including for 2020; medications for AUD can support abstinence and reduce heavy drinking

• Encourage treatment court participants to talk with their doctor about medications for SUD if not already taking

• Support those who are already taking medications for SUD
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