

Welcome to the Webinar!



**We will begin the
presentation
shortly.
Thank you for your
patience.**

Substance Use Disorders: What You Need to Know

“JUST THE FACTS”

Who We Are

- ▶ **The National Center on Addiction and Substance Abuse (CASA) is a national non-profit research and policy organization focused on improving the understanding, prevention, and treatment of substance use and addiction. CASA connects science with policy and practice to better the lives of all people impacted by substance use and addiction.**

Who We Are- MCTAC

In partnership with the Community Technical Assistance Center of New York (CTAC), MCTAC is a training, consultation, and educational resource center that offers resources to *all mental health and substance use disorder providers in New York State*.

MCTAC's Goal

Provide training and intensive support on quality improvement strategies, including business, organizational, and clinical practices to achieve the overall goal of preparing and assisting providers with the transition to Medicaid Managed Care.

Presenters

Marcus Daugherty, M.A., L.M.H.C

Assistant Director of Healthcare Reform Consultation
The National Center on Addiction and Substance Abuse

Tiffany John, L.M.S.W.

Research Associate
The National Center on Addiction and Substance Abuse

WHAT IS ADDICTION?



Definition of Addiction

▶ **Addiction:**

- A chronic, manageable health condition
- Characterized by compulsive drug seeking and use, despite harmful consequences
- Drugs change the brain-its structure and how it works. These changes can be long-lasting.

What Addiction is Not

- ▶ It is not a moral failing, an issue of character or a failure of will.
- ▶ Good intentions and will power are not sufficient to stop using substances.

ADDICTION: THE DISEASE MODEL

The Disease Model

- ▶ **Addiction is a complex brain disease.**
- ▶ **Nicotine, alcohol, illicit drugs and controlled prescription drugs all affect the pleasure and reward circuitry of the brain in similar ways.**
- ▶ **Over time, continued use of these substances can physically alter the structure and function of the brain and dramatically affect judgment and behavior.**

The “Reward Circuit”

- ▶ The reward system controls the body’s ability to feel pleasure and motivates you to continue those activities in order to survive- eating, drinking water, having sex.
- ▶ When someone uses an addictive substance, the reward circuit is overstimulated. This is what is known as a “high.”
- ▶ This level of pleasure is what drives someone to take the substance again and again, trying to achieve that high.

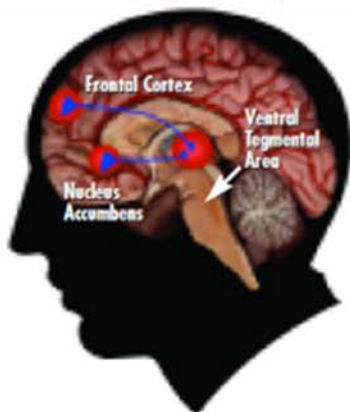
Dopamine Pathways

- ▶ As someone uses more and more drugs, the brain must adjust to the excess production of dopamine in the reward circuit.
- ▶ One way the brain adjusts to this is by reducing the ability of the cells in the reward circuit to respond to the dopamine.
- ▶ This reduces the high and leads to someone taking more and more of a substance so that they can try and recreate their first high.

Dopamine Pathways

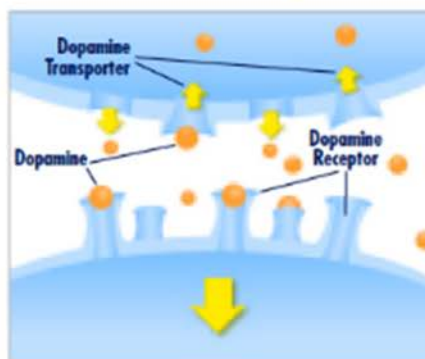
DRUGS OF ABUSE TARGET THE BRAIN'S PLEASURE CENTER

Brain reward (dopamine) pathways

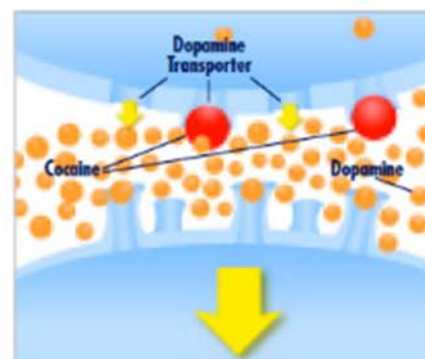


These brain circuits are important for natural rewards such as food, music, and sex.

Drugs of abuse increase dopamine



FOOD



COCAINE

Typically, dopamine increases in response to natural rewards such as food. When cocaine is taken, dopamine increases are exaggerated, and communication is altered.

Chronic Drug Use

- ▶ The abuse of drugs and alcohol causes permanent changes to the brain's functioning that lead to a person developing one, or more, of the four roots of addiction:
 - **Tolerance:** more and more amounts of the substance required to feel the same effect
 - **Dependence:** an inability to function without the drug
 - **Dysphoria:** excessive negative emotions, which can lead to relapse
 - **Sensitization:** greater responsiveness to a drug, which is what makes people more likely to relapse if they have gone for a period of time without using

Chronic Drug Use

▶ **Long-term effects on the brain:**

- Learning
- Judgement
- Decision-making
- Stress
- Memory
- Behavior

PREVALENCE

Prevalence: Overall Statistics

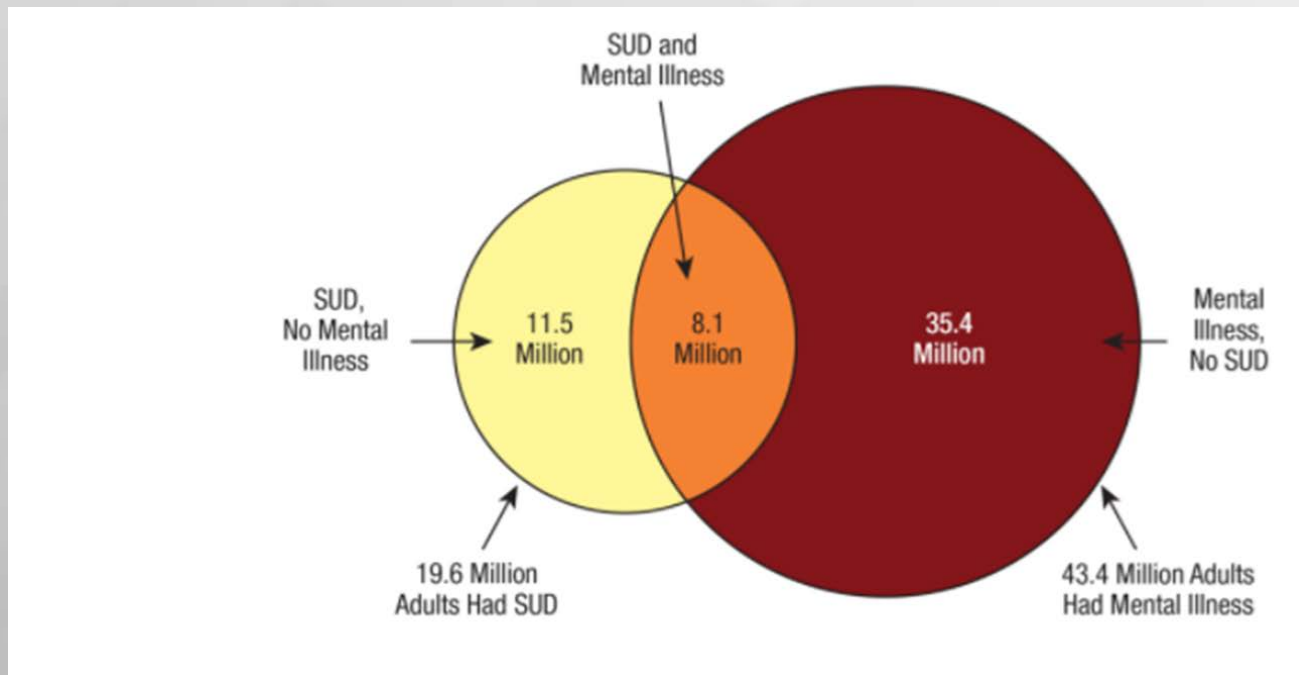
- ▶ Around 20 million Americans need treatment for a substance use disorder (SUD).
- ▶ 1 in 7 people have a SUD.
- ▶ In 2015, guns killed 36, 252 people. Car accidents killed 37, 757. Drug overdoses claimed the lives of 52, 404 people.
- ▶ 144 people die per day of an overdose.

Prevalence: Adolescents

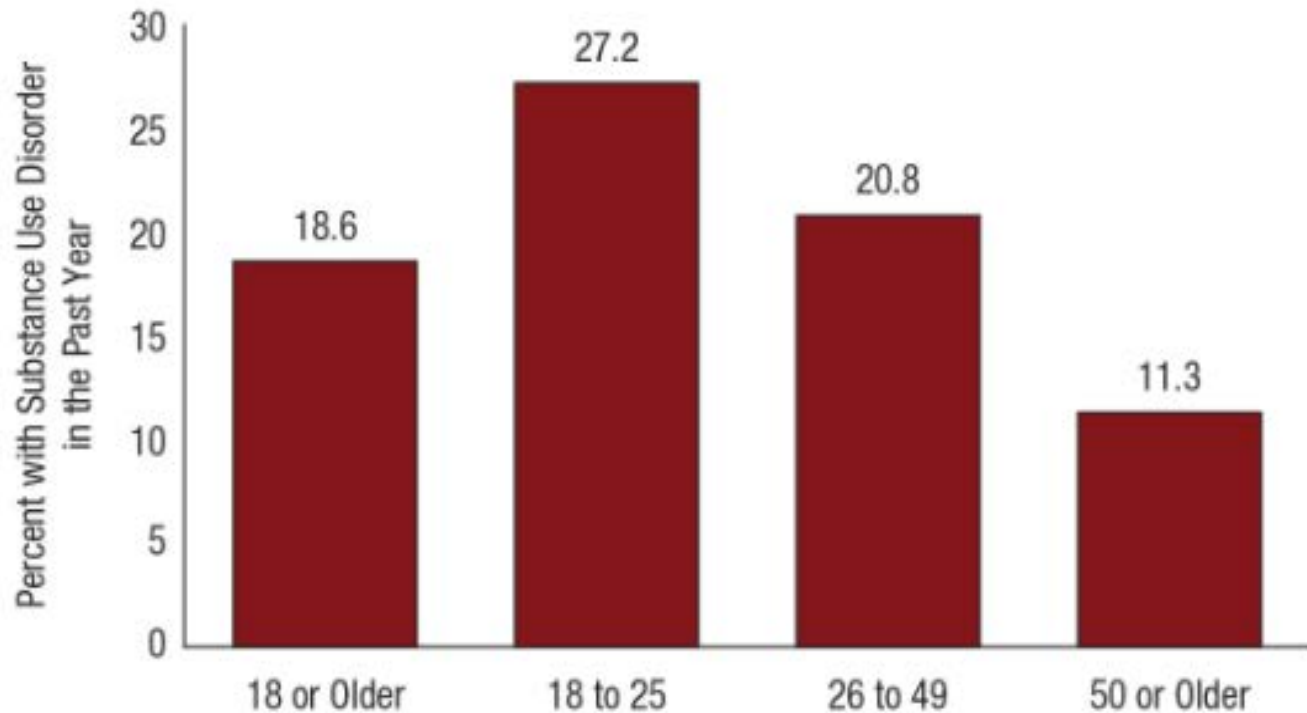
- ▶ 9 out of 10 people who misuse or are addicted to nicotine, alcohol, or other drugs began using before they were 18.
- ▶ 1 in 8 high school students meets clinical criteria for addiction. Among those who have used an addictive substance in the past month, 1 in 3 already has an addictive disorder.
- ▶ Every day, 1,100 teens misuse a prescription pain killer for the first time.

Co-Occurring Mental Health and SUD

- ▶ The coexistence of both a mental health and a substance use disorder is referred to as co-occurring disorders.



Past Year Substance Use Disorder among Adults Aged 18 or Older with Any Mental Illness in the Past Year, by Age (2015)



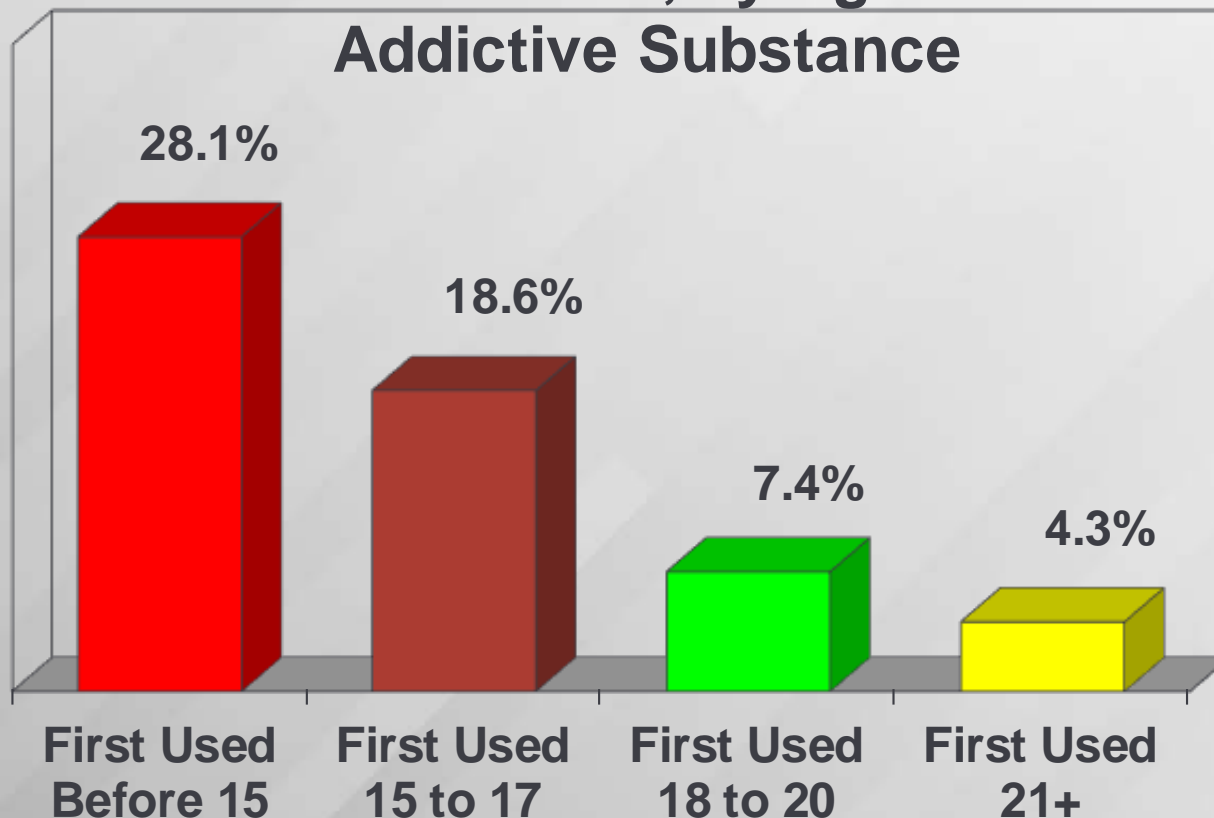
RISK AND PROTECTIVE FACTORS

Risk Factors for Addiction

- ▶ A number of risk factors contribute to someone becoming addicted. The greater number of these factors, the greater the chances that substance use will lead to addiction.
- ▶ No one factor can predict whether a person will become addicted to a drug.
- ▶ One clear and consistent risk is early age at first use of an addictive substance.
- ▶ Individuals who first use any addictive substance before age 15 are 6.5 times as likely to develop addiction as those who delay first use until age 21 or older. Yet, the average age that students report starting to use an addictive substance is between 13 and 14 years.

Age at First Use and Link to Addiction

Percent of Population Aged 12 and Older with a Substance Use Disorder, by Age of First Use an Addictive Substance



The Adolescent Brain

Adolescence is the Critical Period for the Onset of Substance Use and its Consequences:

- The regions of the brain responsible for judgment, decision-making, emotion and impulse control are not fully developed until early adulthood.
- Therefore, adolescents are more likely than adults to take risks, including using addictive substances.
- Heightened vulnerability to negative impact of addictive substances increase the risk of addiction
- Biological vulnerabilities compounded by additional risk factors

Other Risk Factors

- ▶ **Genetic predisposition or family history of substance use disorders**
- ▶ **Adverse childhood events (e.g., trauma, abuse, neglect)**
- ▶ **Co-occurring mental health or behavioral problems**
- ▶ **Peer victimization or bullying**
- ▶ **Other risky behaviors (e.g., gambling, unsafe sex)**
- ▶ **Subgroups at high risk: involved in child welfare, juvenile offenders, school dropouts, minority sexual identity**

Protective Factors

- ▶ **Good self-regulation, impulse control**
- ▶ **Positive family environment**
- ▶ **Positive adult and peer role models**
- ▶ **Limited accessibility and exposure to addictive substances**
- ▶ **Strong school/community attachment, extracurricular activity participation, goals for the future**

CONSEQUENCES OF SUBSTANCE USE AND ADDICTION

Consequences of Substance Use and Addiction

- **Early Death:** directly linked to the three leading causes of adolescent death -- accidents, homicides & suicides.
- **Poor Academic/Job Performance:** lower grades & academic attainment, higher unemployment.
- **Poor Health Outcomes:** traffic accidents, risky sex, unintended pregnancy, chronic physical and mental health problems, brain damage, addiction.
- **Crime:** juvenile & adult property, violent & substance-related offenses

Societal Costs of Addiction

- ▶ **Addiction constitutes the largest preventable and most costly health problem facing the U.S. today**
- ▶ **In 2009, addiction and risky substance use cost the U.S. Government at least \$468 billion.**
- ▶ **In 2013, the cost of opioid use, misuse, and overdose was \$78.5 billion.**

Treatment Can Work

- ▶ Evidence-based treatments can be effective in managing the disease.
- ▶ Despite effective treatment, the risk for relapse persists and can/does occur.
- ▶ Relapse does not mean that treatment does not work. Treatment should be ongoing and should be adjusted based on the patient's current status.

Final Thoughts

- ▶ **Medical condition**
- ▶ **Not about criminality, failure of will or character flaws**
- ▶ **Preventable and treatable**
- ▶ **Evidence-based treatments**
- ▶ **Needs to be managed as a chronic condition, not treated in an acute care episode**
- ▶ **Be on the lookout for our webinar coming up about Treatment!**



Questions?

THANK YOU



www.ctacny.org



The National Center on
Addiction and Substance Abuse

www.centeronaddiction.org