



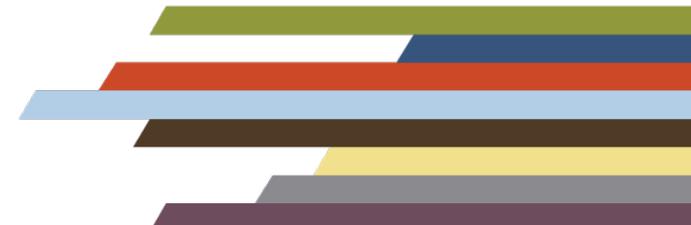
Northeast & Caribbean (HHS Region 2)

PTTC

Prevention Technology Transfer Center Network

Funded by Substance Abuse and Mental Health Services Administration

Opioid Use Disorder: Overview and Prevention



Certificate of Completion

- At the end of the session, you will complete an online evaluation prior to closing and going offline (instructions to follow).
- Certificates will be sent out within a week or so along with a copy of the slides.
- This webinar is approved for 2 hours of CASAC, CPP, CPS credentialing.
- You must attend the entire session.

This webinar training is provided under New York State Office of Addiction Services and Supports (OASAS) Education and Training Provider Certification Number 0115. Training under a New York State OASAS Provider Certification is acceptable for meeting all or part of the CASAC/ CPP/ CPS education and training requirements.



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Disclaimer

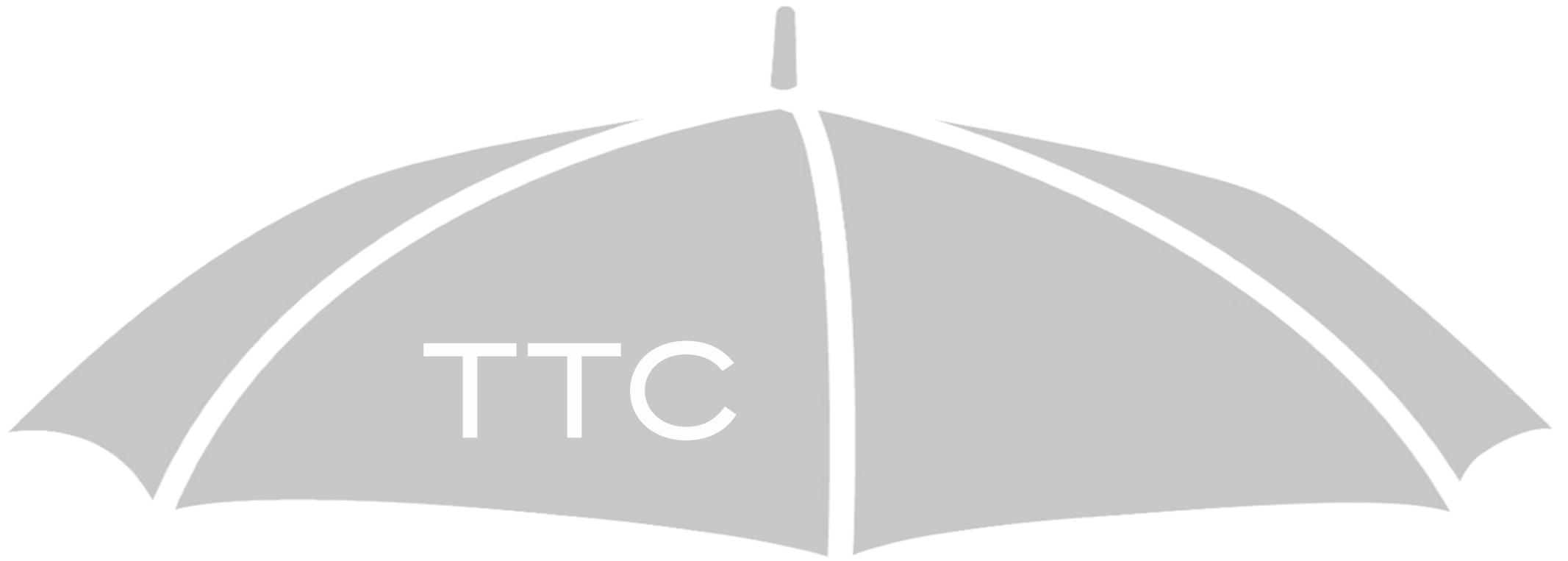
The development of these training materials was supported by grant TI082504 (PI: M. Chaple) from the Center for Substance Abuse Treatment, Substance Abuse and Mental Health Services Administration (SAMHSA), United States Department of Health and Human Services. The contents are solely the responsibility of the Northeast and Caribbean Addiction Technology Transfer Center, and do not necessarily represent the official views of SAMHSA.

Purpose of SAMHSA's Technology Transfer Centers

The purpose of the Technology Transfer Centers (TTC) program is to ***develop and strengthen the specialized behavioral healthcare and primary healthcare workforce*** that provides substance use disorder (SUD) and mental health prevention, treatment, and recovery support services.

Help people and organizations incorporate ***effective practices*** into substance use and mental health disorder prevention, treatment and recovery services





ATTC



MHTTC



PTTC



The use of affirming language inspires hope and advances recovery.

LANGUAGE MATTERS.

Words have power.

PEOPLE FIRST.

The ATTC Network uses affirming language to promote the promises of recovery by advancing evidence-based and culturally informed practices.

Goals

Participants will become familiar with Opioid Use Disorder (OUD), potential signs of opioid use, effective screening considerations for OUD, and currently recommended prevention strategies.

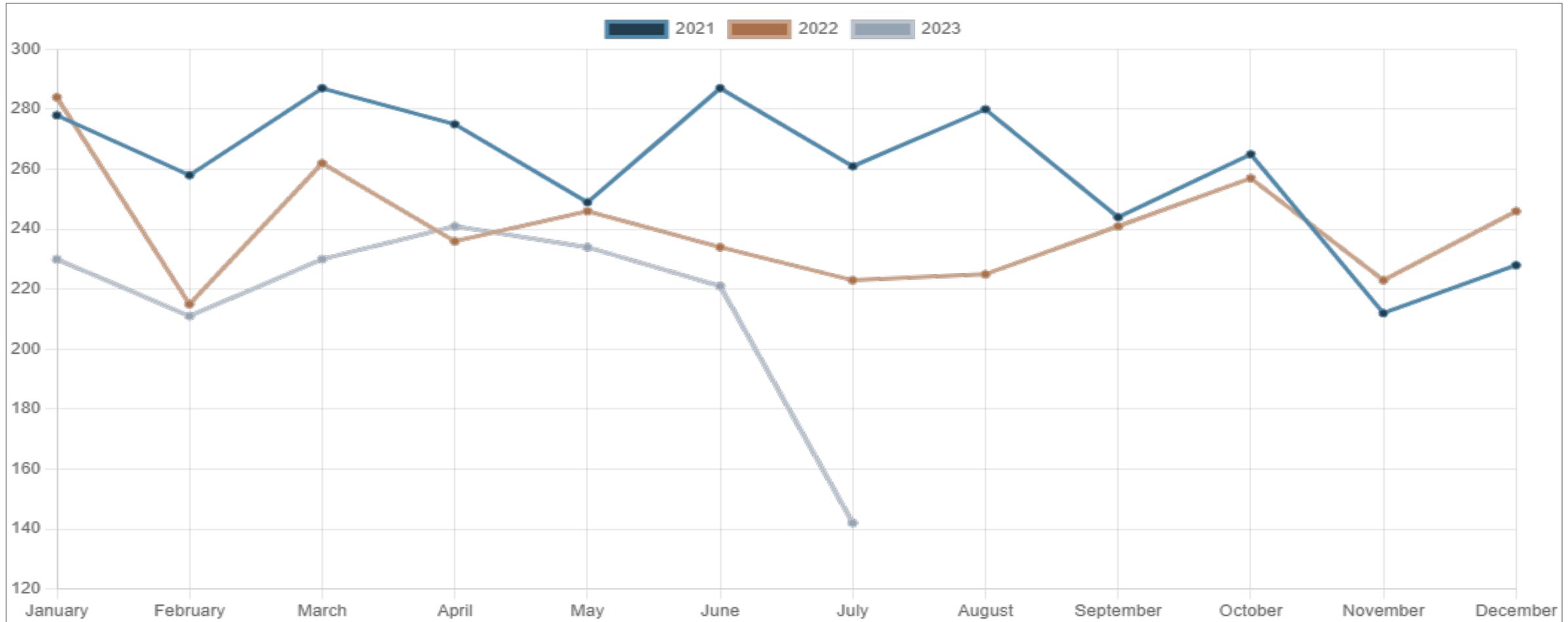


Overview



- Opioid addiction has been a consistent major public health challenge.
- Like other substance use disorders, opioid use disorder (OUD) is a chronic brain disease in which people continue to use opioids in spite of harms caused by their use.
- Highly effective treatments are available and not only saves lives, but also improves quality of life.

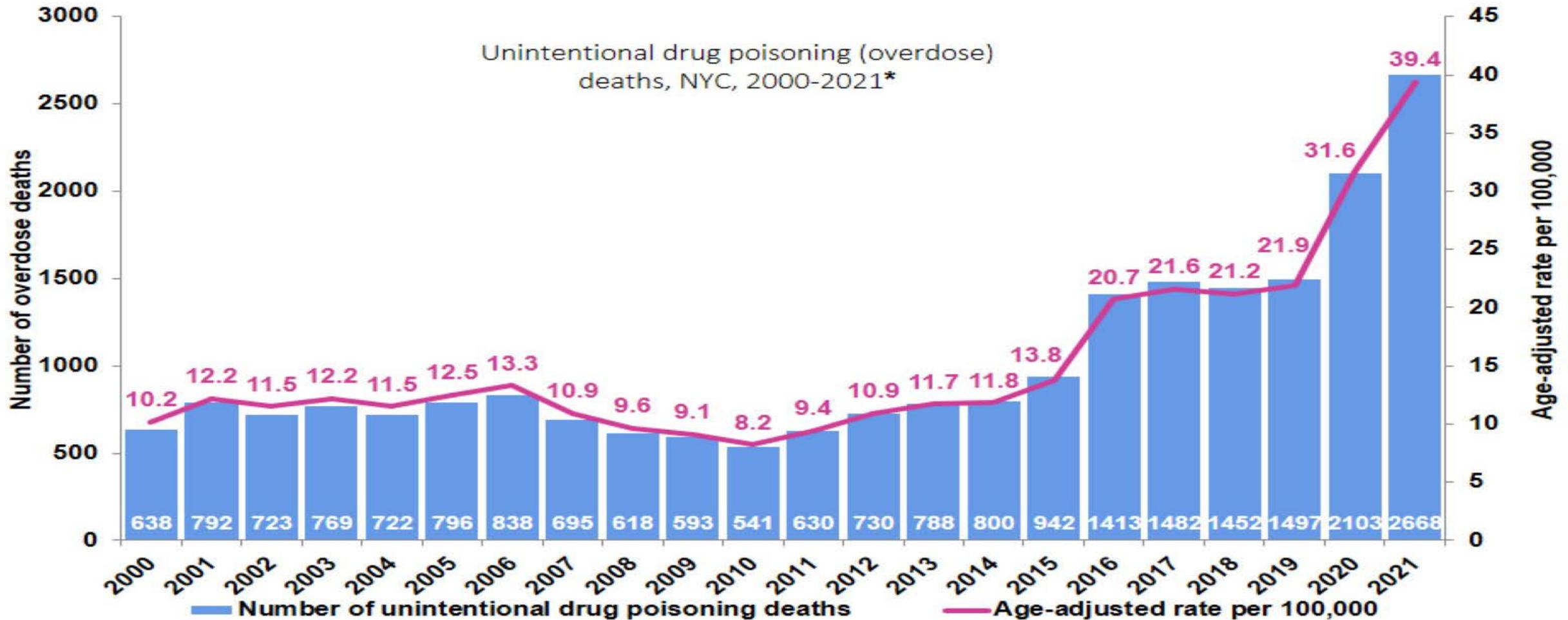
NJ Suspected Drug Death Statistics (1/2021- 7/2023)



Office of the Chief State medical Examiner, Suspected Drug Death Statistics, July 2023,

https://ocsme.nj.gov/Dashboard?_gl=1*19omh41*_ga*NzU1Nzk1ODUxLjE2ODk4ODMzODU.*_ga_5PWJJG6642*MTY4OTg4MzQ3MC4xLjEuMTY4OTg4MzQ3Mi4wLjAuMA..

NYC Opioid Overdose (OD) Rates (2020-2021)



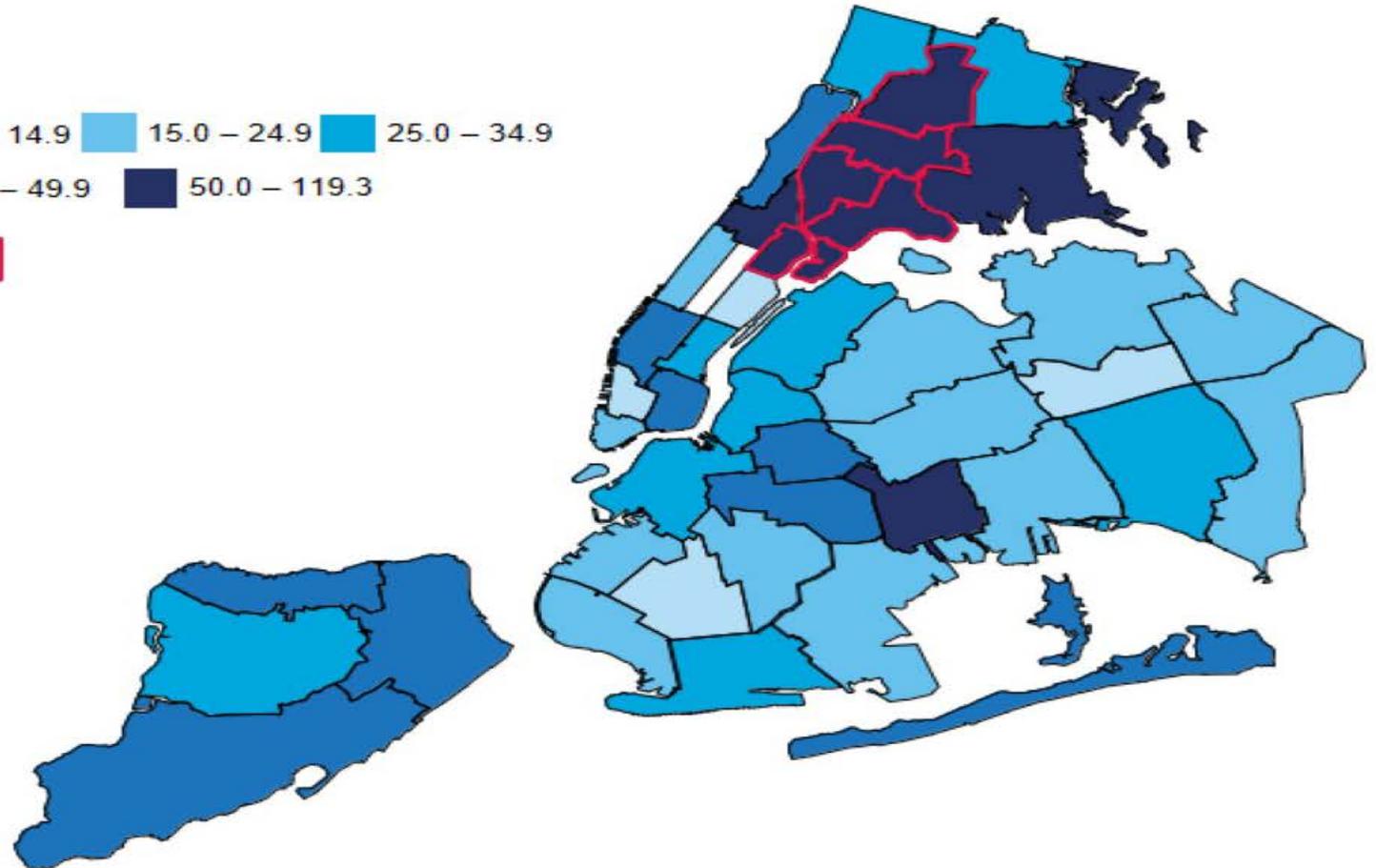
Source: New York City Office of the Chief Medical Examiner & New York City Department of Health and Mental Hygiene 2021*
 *Data for 2021 are provisional and subject to change

Neighborhoods with High(er) Rates of OD

Rate of unintentional drug poisoning (overdose) death per 100,000 residents, New York City, 2021



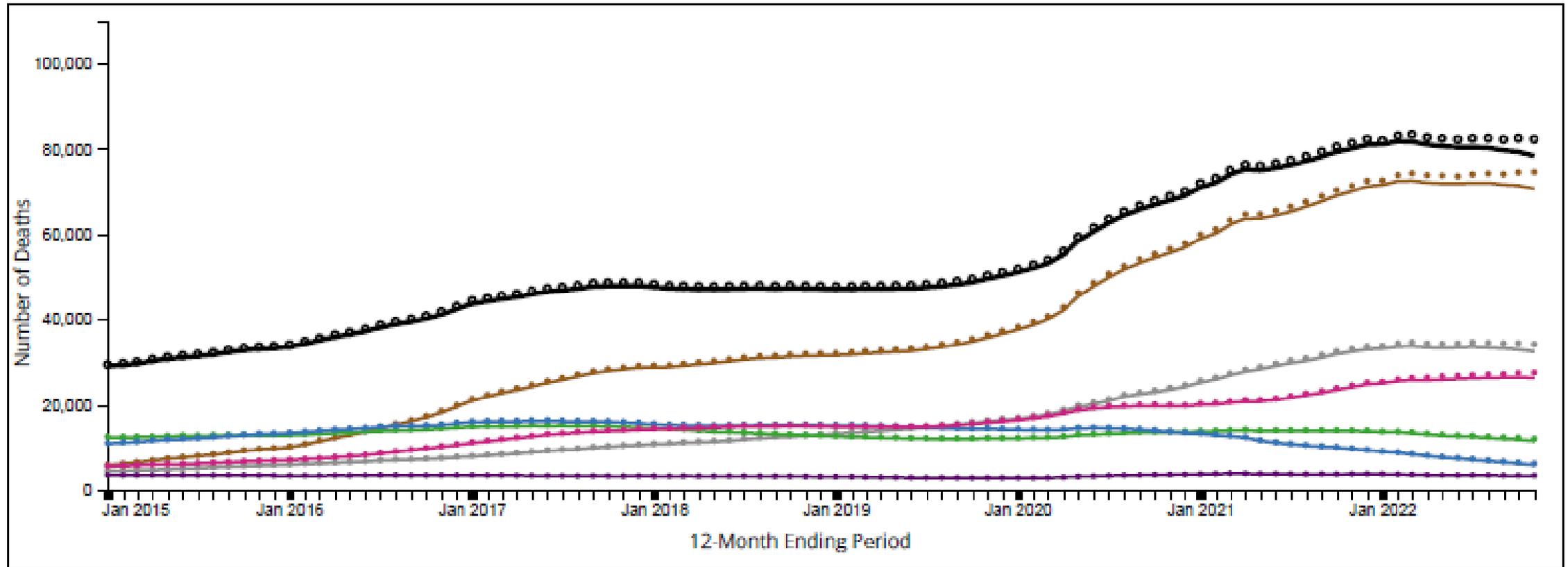
Top 5 neighborhoods with highest rates of overdose death



Source: New York City Office of the Chief Medical Examiner & New York City Department of Health and Mental Hygiene 2021*

*Data for 2021 are provisional and subject to change

Drug Overdose by Drug or Drug Class (April 2023)



Cocaine (T40.5)
Opioids (T40.0-T40.4,T40.6)
Heroin (T40.1)
Psychostimulants with abuse potential (T43.6)
Methadone (T40.3)
Natural & semi-synthetic opioids (T40.2)
Synthetic opioids, excl. methadone (T40.4)

Contributing Risk Factors



Mental health post-covid

Polysubstance use

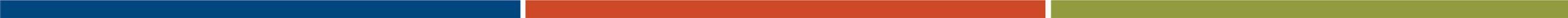
Fentanyl and Xylazine

Social determinants of health

Availability



Often the Questions are....





Why Do People Use Drugs...Why Can't They Stop?

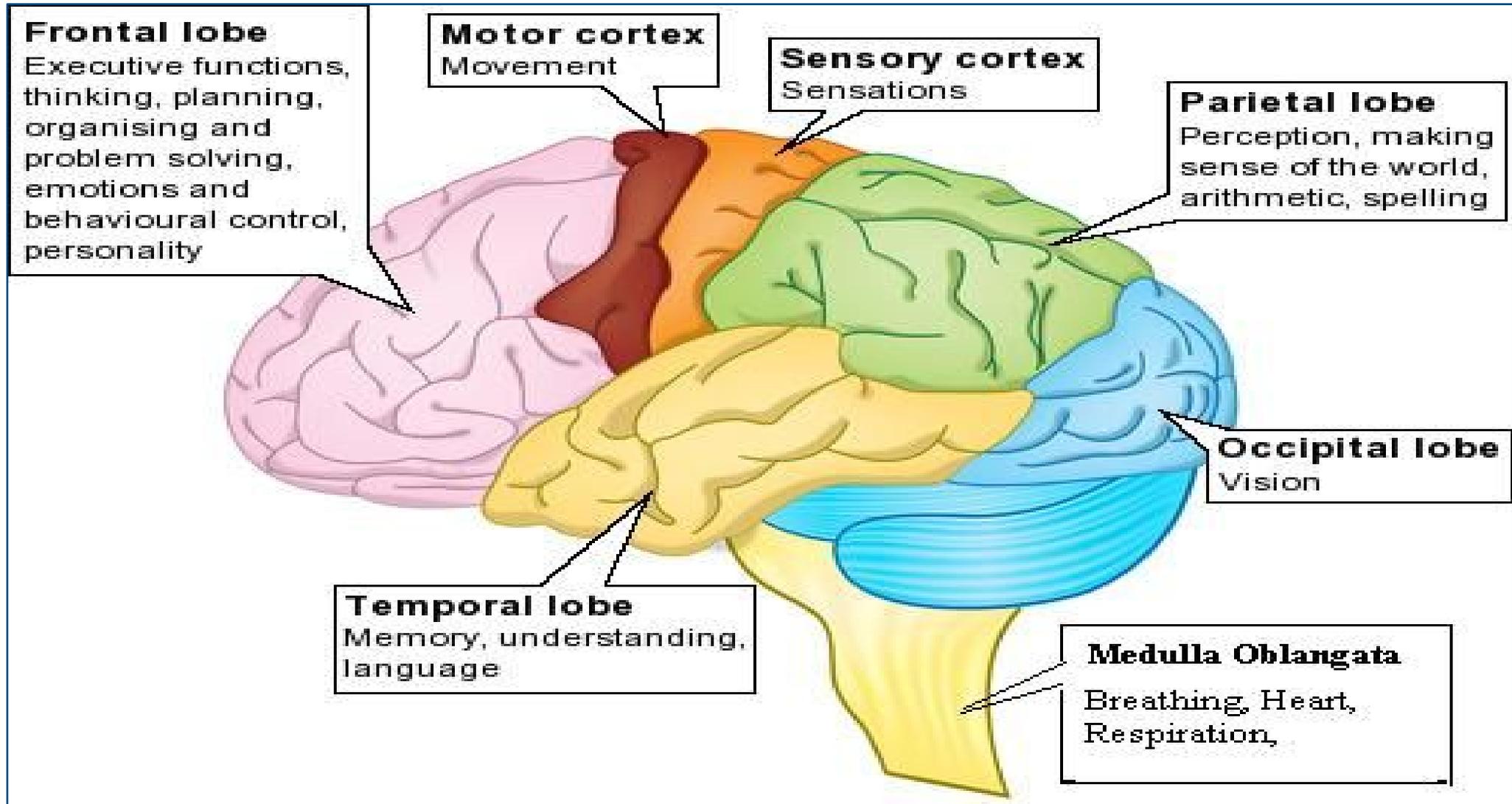
The compulsiveness of drug seeking behavior



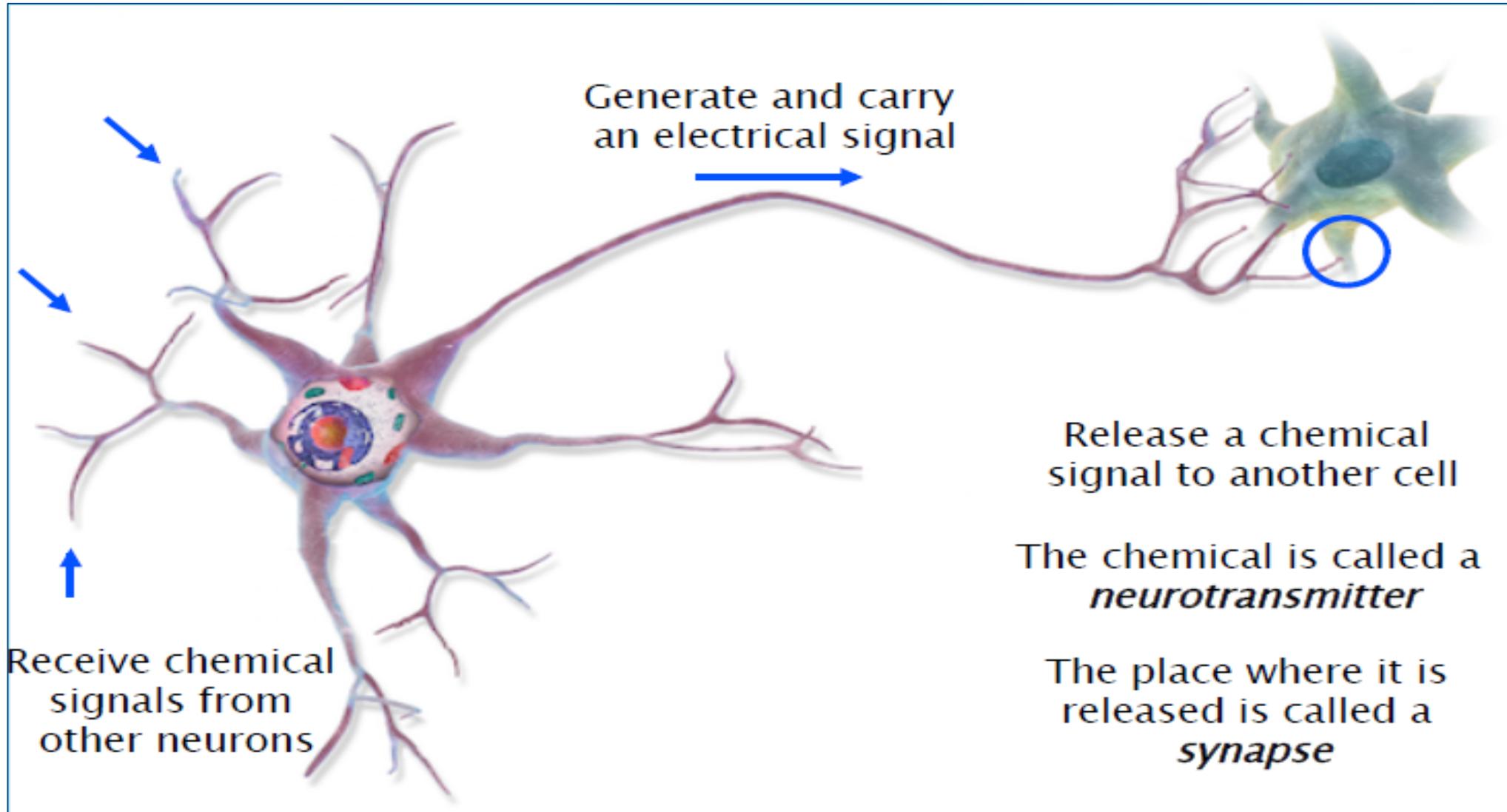
How Substance Use Can Affect the Individual



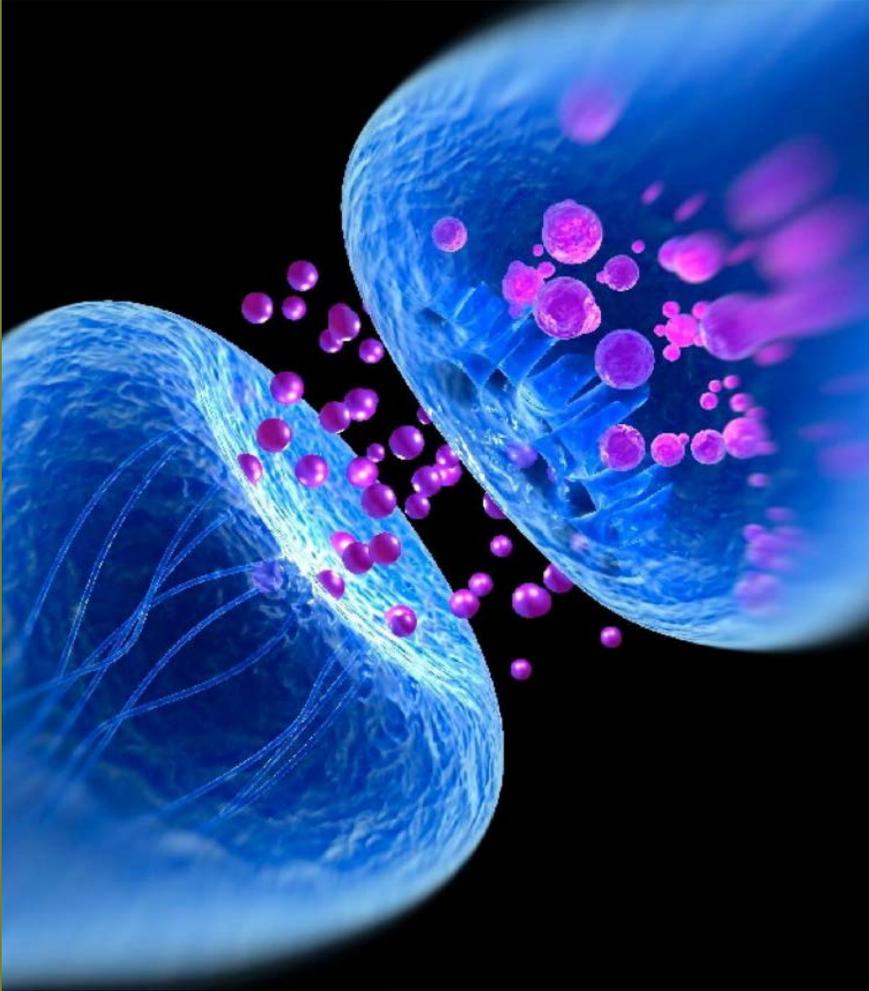
Brain Functions



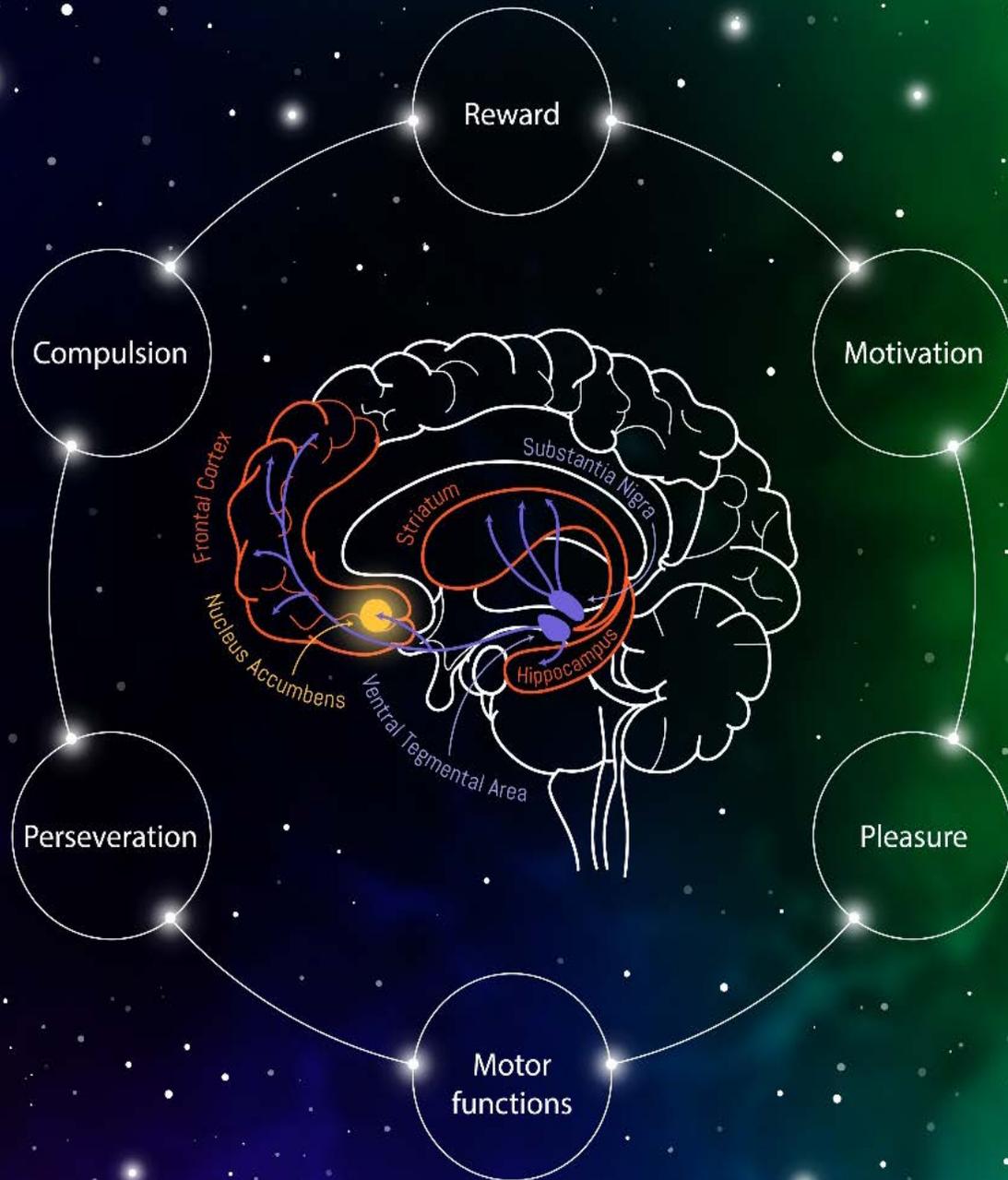
Neuron Activity



Neurotransmission



Neurotransmission (synaptic transmission) is communication between **neurons** accomplished by the movement of chemicals or electrical signals (neurotransmitter) across a **synapse**.



Neurotransmitters

Dopamine

- Affects motor movement, involved in pleasure

Norepinephrine

- Affects heart rate, blood pressure, sweating
- Dilates pupils and constrict blood vessels

Serotonin

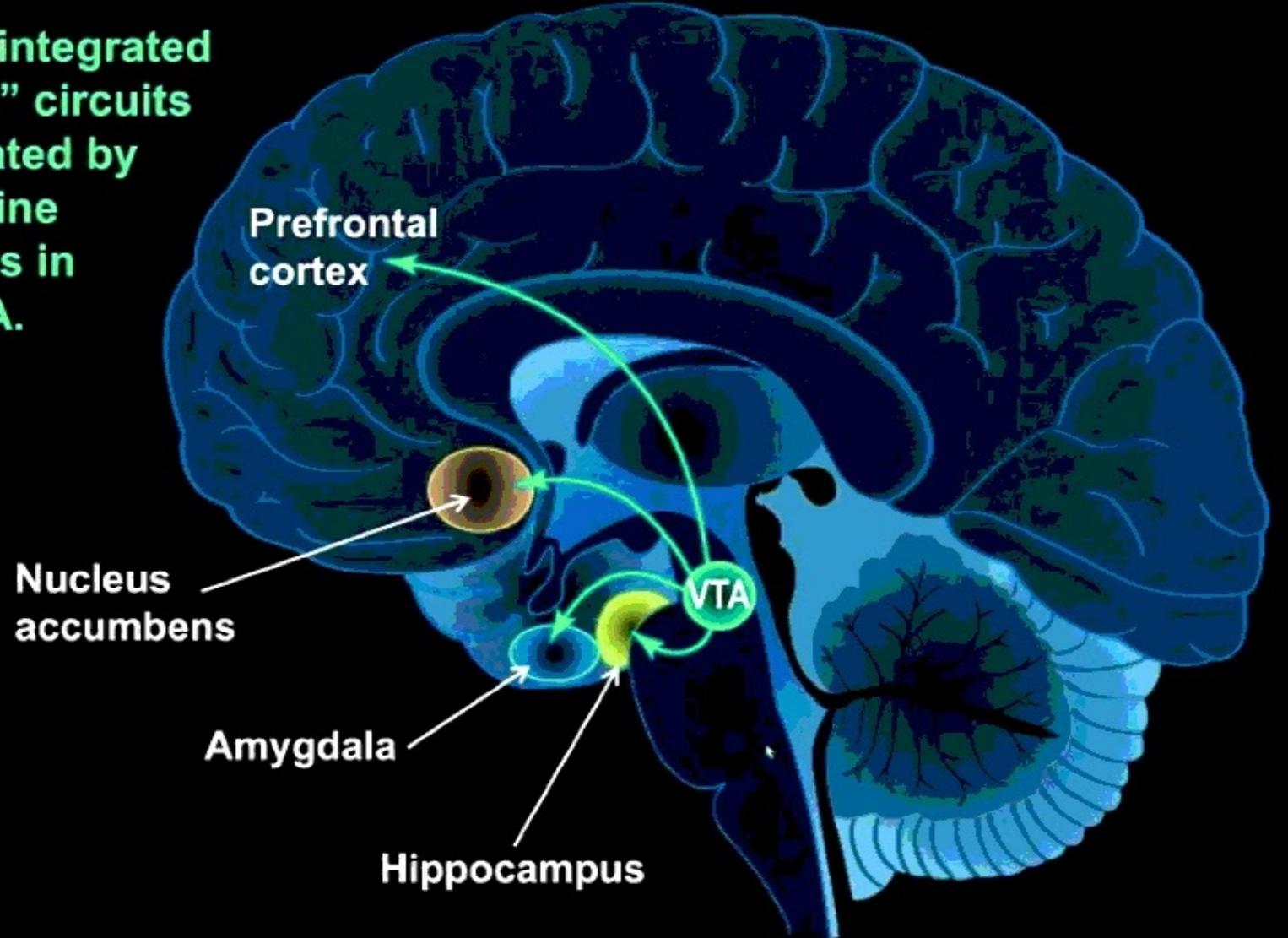
- Affects sleep and mood

Brain Reward Regions

Drugs of abuse converge by acting on so-called “brain reward regions.”

This reward circuitry is very old from an evolutionary perspective and mediates responses to natural rewards (food, sex, social interactions, etc.).

Highly integrated “limbic” circuits innervated by dopamine neurons in the VTA.



Impact of Substances on Brain and Behavior



Substance Use Disorders



Alcohol Use Disorder



Opioid Use Disorder



Tobacco Use Disorder



Marijuana Use Disorder



Stimulant Use Disorder



Sedative Use Disorder

The Disease Model of Addiction

- Addiction is defined as a chronic, relapsing disorder characterized by compulsive drug seeking and use despite adverse consequences.
- It is considered a brain disorder, because it involves functional changes to brain circuits involved in reward, stress, and self-control.



Opioid Use, Impact



Opiates and Opioids

Opiates come from opium, which can be produced naturally from poppy plants

Opioid refers to natural and synthetic substances that act at one of the three main opioid receptor systems (mu, kappa, delta) on nerve cells in the body and brain and reduce the intensity of pain signals and feelings of pain.

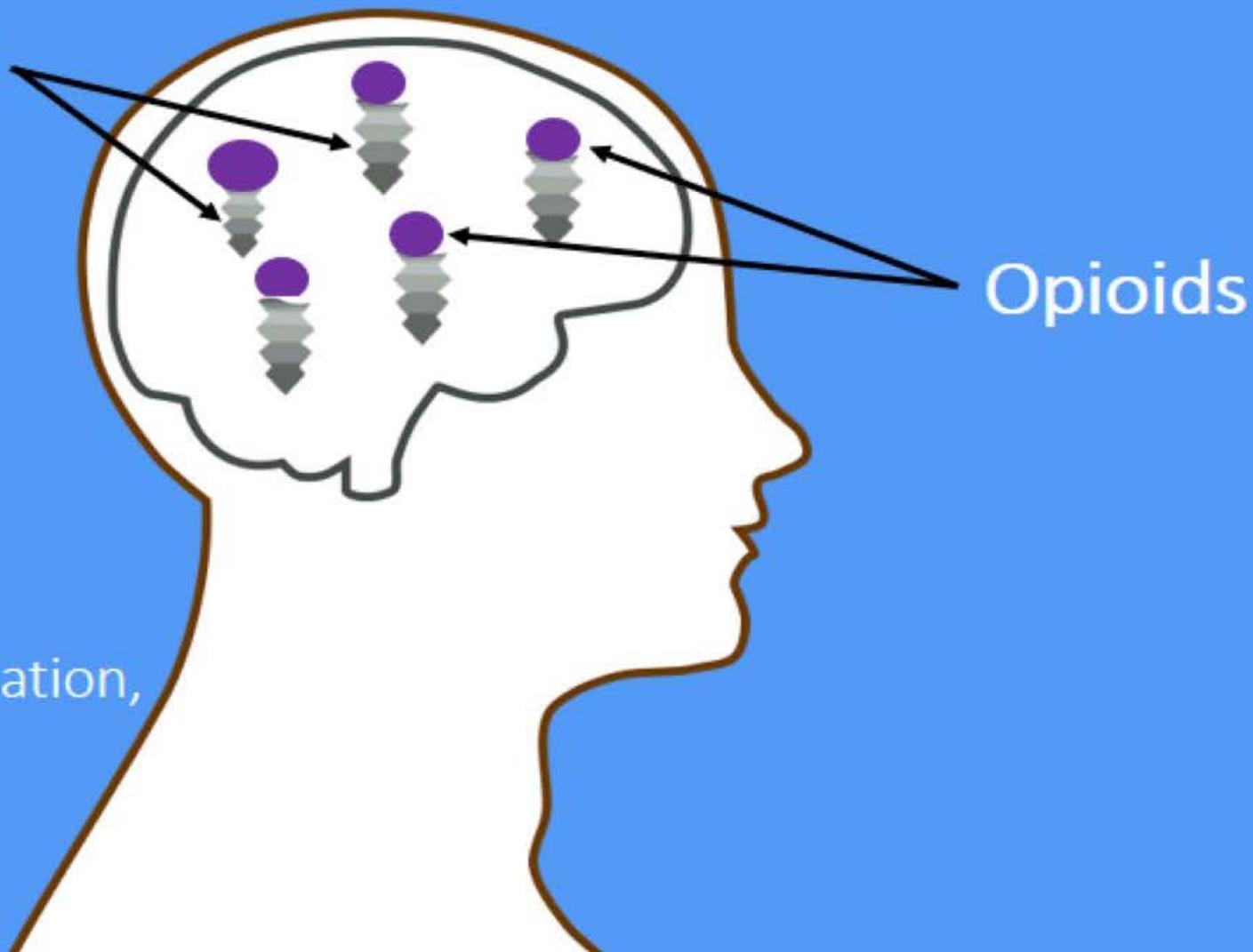


How Do Opioids Work?

Opioid receptors

Opioids can:

- Relieve pain
- Relieve withdrawal
- Produce feelings of happiness/comfort
- Cause side effects: constipation, nausea, drowsiness and respiratory depression



EFFECTS

HEROIN

SLEEPINESS

EDMA

NAUSEA

SEVERE
ITCHING

EUPHORIA

BREATHING
PROBLEMS

PRESCRIPTION OPIOIDS

SLEEPINESS

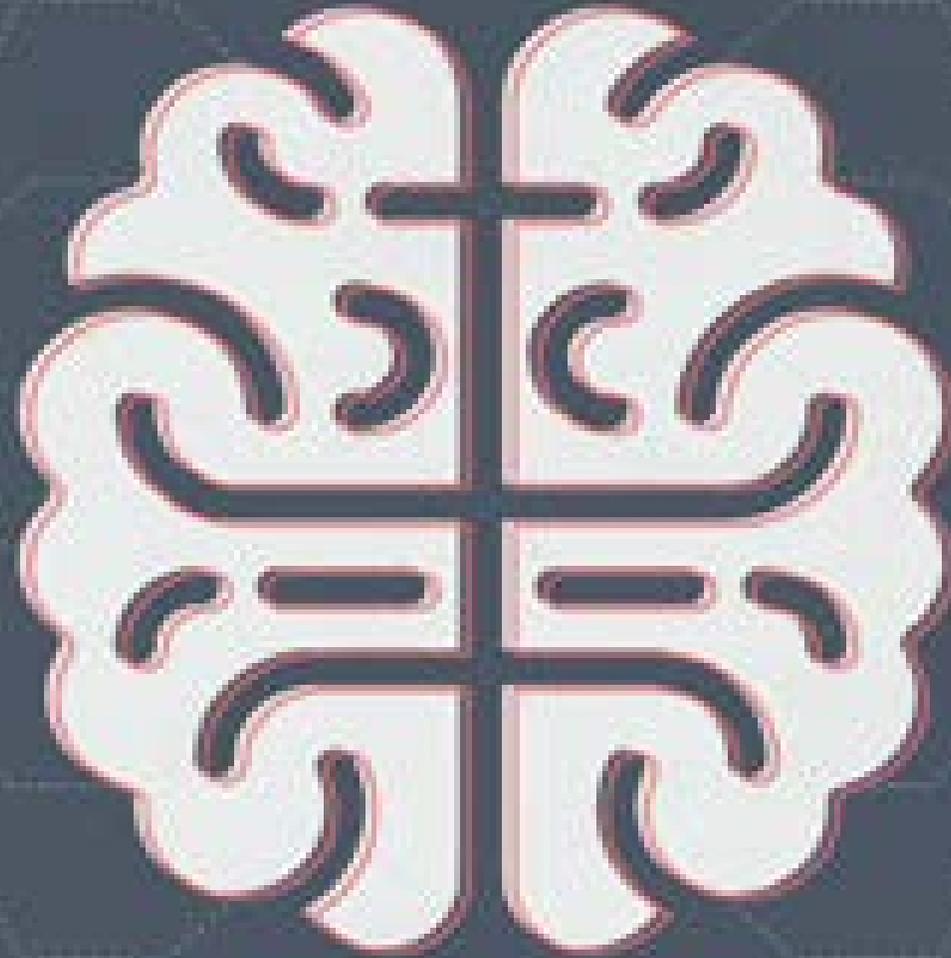
CONFUSION

NAUSEA

PAIN RELIEF

EUPHORIA

BREATHING
PROBLEMS



Long Term Effects of Opioid Use

- Withdrawal
- Heightened stress-response
- Physical changes to brain regions that govern:
 - Judgement
 - Decision-making
 - Learn and memory
 - Behavior control



Lasting Effects of Withdrawals

- Major withdrawal symptoms peak between 24-48 hours after the last dose of heroin and subside after about a week.

Some people have shown persistent withdrawal signs for many months.

- Persons may use heroin at the normal rate they had prior to withdrawal.

Because the drugs are out of their system, this amount can prove too much for the brain to handle...*this is called ...?*

Opioid Use Disorder – DSM-5 Criteria

1. Opioids are often taken in larger amounts or over a longer period than was intended.
2. There is a persistent desire or unsuccessful efforts to cut down or control opioid use.
3. A great deal of time is spent in activities necessary to obtain the opioid, use the opioid, or recover from its effects.
4. Craving, or a strong desire or urge to use opioids.
5. Recurrent opioid use resulting in a failure to fulfill major role obligations at work, school, or home.
6. Continued opioid use despite having persistent or recurrent social or interpersonal problems caused or exacerbated by the effects of opioids.
7. Important social, occupational, or recreational activities are given up or reduced because of opioid use.
8. Recurrent opioid use in situations in which it is physically hazardous.
9. Continued opioid use 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 Criteria continued

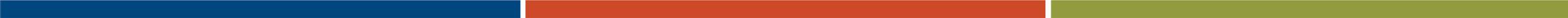
10. Tolerance, as defined by either of the following:
 - a. A need for markedly increased amounts of opioids to achieve intoxication or desired effect.
 - b. A markedly diminished effect with continued use of the same amount of an opioid.

Note: This criterion is not considered to be met for those taking opioids solely under appropriate medical supervision.

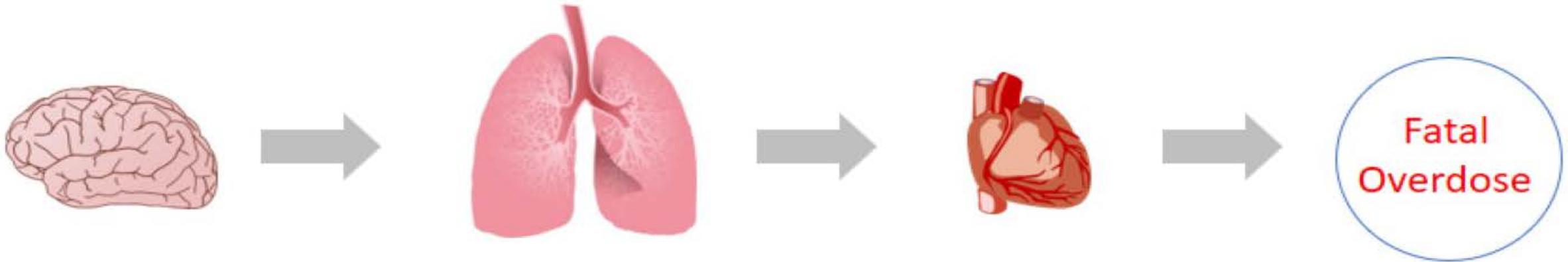
11. Withdrawal, as manifested by either of the following:
 - a. The characteristic opioid withdrawal syndrome (refer to Criteria A and B of the criteria set for opioid withdrawal).
 - b. Opioids (or a closely related substance) are taken to relieve or avoid withdrawal symptoms.



Additional Threats: Fentanyl and Xylazine



...overdoses can occur over the course of minutes to hours



Quantity or strength of opioids gradually suppress the involuntary drive to breathe

Breathing slows down

Heart Stops

**Fatal
Overdose**

Overdoses Fueled by Fentanyl

- Fentanyl, a synthetic opioid that can be 50x stronger than morphine, heroin, or oxycodone:
 - Mixed-in with other drugs (cocaine, methamphetamine)
 - Involved in 80% of overdoses.

Available on the street as fentanyl, heroin, pressed pills

- Buyers are unaware what they purchase

The Fentanyl high is short, Xylazine is added to extend the 'high'



Xylazine (Tranq, Tranq Dope, Zombie Drug)



https://heller.brandeis.edu/opioid-policy/pdfs/xylazine-update-for-providers_community_july-2022.pdf

- Non-opioid used as a sedative, anesthetic, muscle relaxant analgesic for animals.
- Commonly present in opioids and contributes to oversedation alongside of opioids.
- Causes unresponsiveness or decreased consciousness, low blood sugar, low blood pressure, slowed heart rate, and reduced breathing.
- People may sustain serious injuries if oversedated and unresponsive for long periods.

Xylazine Effects

- Xylazine is a central nervous system depressant that can cause drowsiness, amnesia, and slow breathing, heart rate, and blood pressure at dangerously low levels.
- At very high doses, or with other central nervous system depressants, xylazine can cause:
 - Loss of physical sensation
 - Loss of consciousness
 - ***Intensification of the effects of other drugs, which can complicate overdose presentation and treatment.***



Xylazine Related Skin Ulcers

- Using xylazine increases risk of skin ulcers at the injection site and around other cuts, often appearing to worsen more quickly than other skin wounds, (arms, hands, legs).
- People using xylazine had a prevalence of skin ulcers compared to those who do not use xylazine (38.5% vs 6.8%).
- Causes necrotic (dead cells) tissue damage and severe abscesses after injecting and/or snorting xylazine that appear to be independent of injection sites.



Photo by ACACI Network Outreach Unit





Stigma Free Language



Substance Use Terms & Levels

- **Substance Use, (SU)** refers to the consumption of psychoactive substances.
- **Substance Misuse**, taking medications other than prescribed.
- **At-risk Substance Use**, refers to consuming at levels resulting in harmful or hazardous consequences.
- **Substance Use Disorder, (SUD)** meets a diagnostic criteria.

Which Do You Use?



What is the difference between
Substance Abuse and **Substance Use Disorder**?

Does it make a difference which term we use?

Recovery Oriented Language



- Respectful
- Non-judgmental
- Clear and understandable
- Free of jargon
- Consistent with body language
- Supportive, inspire hope and empowerment
- Strengths-based

Focus on the Person

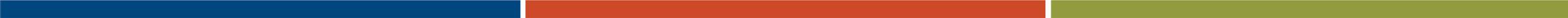
- **Person-first language (PFL):** Language that refers to the person first and the identity second. For example: “The writer, who has a bipolar disorder” as opposed to “the disabled writer.”

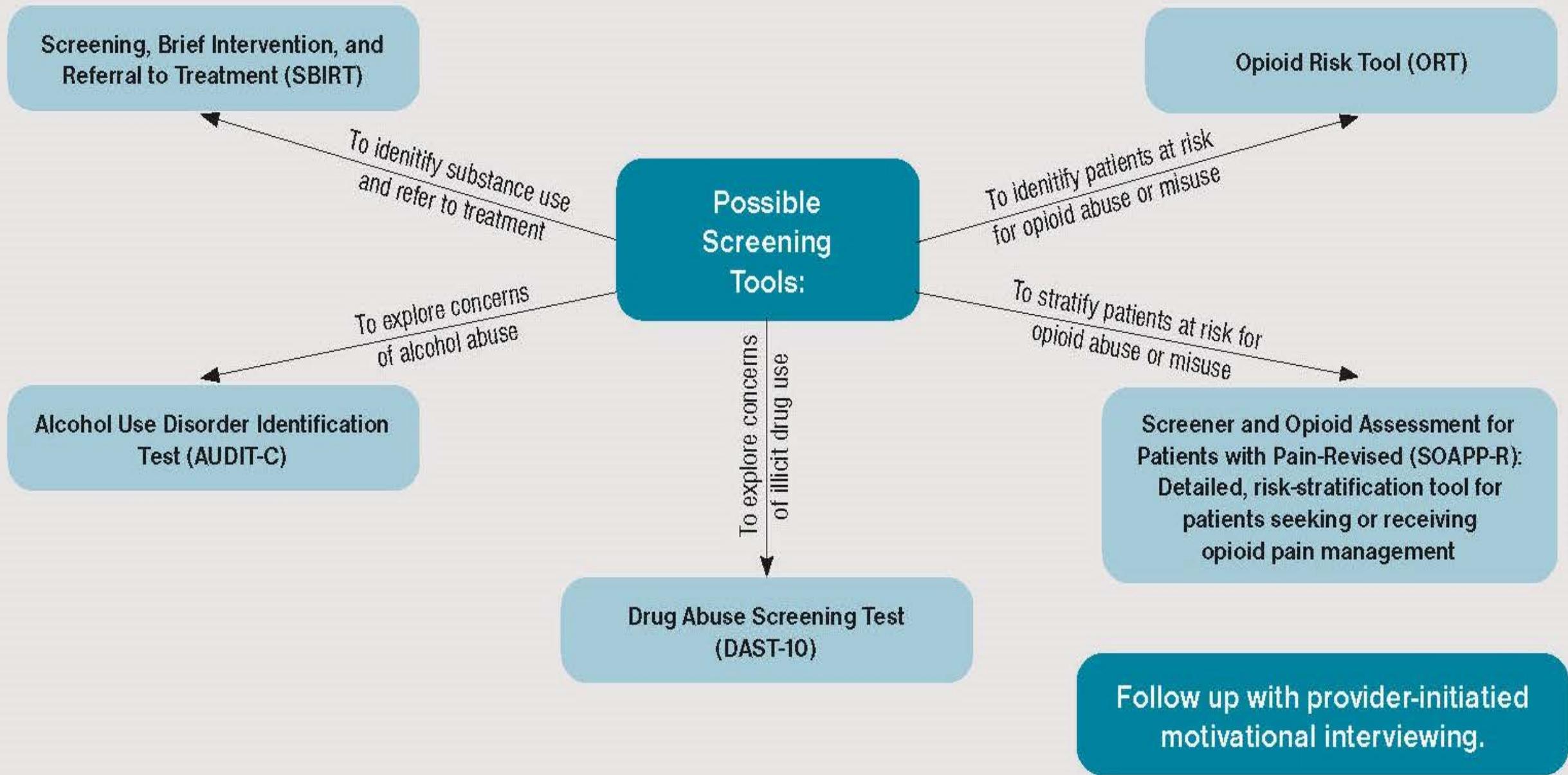
PFL emphasizes the individuality, equality and dignity of **people** with substance use disorders, disabilities, or mental illness.

For example: The sentence, “people succeed at work when they have adequate skills and supports,” is true whether we are talking about someone who is returning to work after receiving psychosocial or substance use rehabilitation services, or about someone who is lands a first professional job following graduate school.



OUD Screening Tools







Treatment

Medications for Opioid Use Disorder (MOUD)



MOUD is a form of pharmacotherapy and refers to any treatment for a substance use disorder that includes a pharmacologic intervention as part of a comprehensive substance abuse treatment plan.

Medications for Opioid Use Disorder

For Healthcare and Addiction Professionals, Policymakers, Patients, and Families

UPDATED 2020

Medication & Counseling

MOUD (formerly known as MAT) uses a combination of medication and therapy that can successfully treat alcohol and opioid use disorders, and for some people struggling with addiction, MOUD can help sustain recovery.

- **Cognitive behavioral therapy** — helping the patient to identify triggers and stressful situations, and develop coping strategies
- **Family therapy** — designed to address teen drug use within the family unit and improve family functioning
- **Motivational interviewing** — a client-centered therapy that helps the person find the motivation to change
- **Motivational incentives** — uses methods of positive reinforcement to maintain recovery

Goals of Maintenance

- Prevent drug withdrawal and normalize brain chemistry.
- Block the euphoric effects of alcohol and opioids.
- Prevent the powerful craving that characterizes protracted withdrawal.
- Normalize body functions without the negative effects of the abused drug.



Medications

Buprenorphine	<ul style="list-style-type: none">• Partial mu-opioid receptor agonist• Suppresses and reduces cravings for opioids• Can be prescribed by any clinician with a current, standard DEA registration with Schedule III authority, in any clinical setting
Methadone	<ul style="list-style-type: none">• Full mu-opioid receptor agonist• Reduces opioid cravings and withdrawal and blunts or blocks the effects of opioids• Can only be provided for OUD through a SAMSHA-certified opioid treatment program
Naltrexone	<ul style="list-style-type: none">• Opioid receptor antagonist• Blocks the euphoric and sedative effects of opioids and prevents feelings of euphoria• Should be started after a minimum of 7 to 10 days free of opioids to avoid precipitation of severe opioid withdrawal• Can be prescribed by any clinician with an active license to prescribe medications

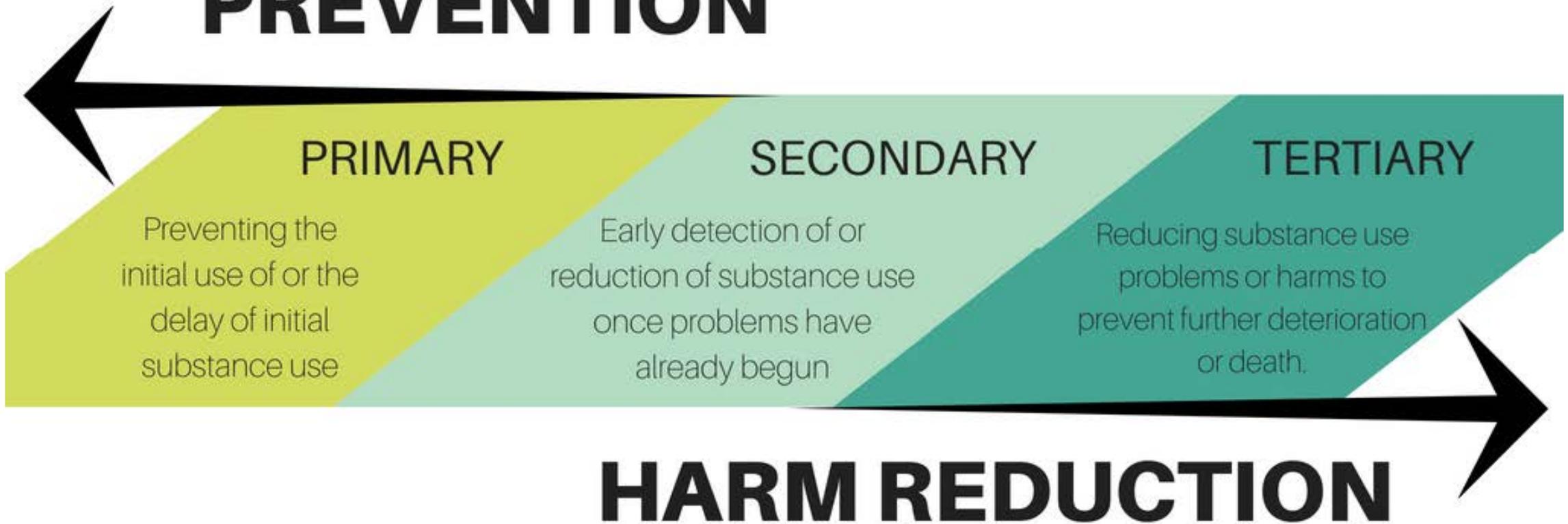


Prevention and Harm Reduction



The Intersection of Prevention & Harm Reduction Efforts

PREVENTION



Prevention



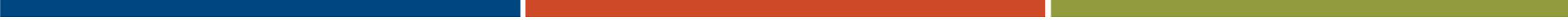
- Academic detailing to educate providers about opioid prescribing guidelines and facilitating conversations with patients about the risks and benefits of pain treatment options
- Quality improvement programs in health care systems to increase implementation of recommended prescribing practices
- Patient education on the safe storage and disposal of prescription opioids
- Improve awareness and share resources about the risks of prescription opioids, and the cost of overdose on patients and families.

Harm Reduction



- Harm reduction is a set of practical strategies and ideas aimed at reducing negative consequences associated with drug use.
- Harm Reduction is also a movement for social justice built on a belief in, and respect for, the rights of people who use drugs.

Harm Reduction Services



- Harm Reduction - Syringe Access Programs
- Naloxone (Narcan) training
- Fentanyl and Xylazine test strips

Harm Reduction - Injecting

- Dope that's been cut with xylazine is sometimes darker, browner, chunkier, flakier, and weird-smelling. But dope that appears normal (white powder) can still have xylazine.
- **Cooking it twice can help dissolve chunks. After drawing up, wipe off needle with an alcohol prep, let dry, THEN inject.**
- Go as slow and precise as you can; for arms, use a tie and get the vein anchored. Count to 5 before taking the needle out. You want to avoid ANY leaking outside the vein and into the muscle or
- Short-tips (31g) may be higher-risk than regular 1/2" needles. Muscling and skin popping are EXTREMELY HIGH RISK for skin problems
- Try booty-bumping or smoking from a hammer pipe; less injecting = less risk



Harm Reduction Options



Photo by ACACI Network Outreach Unit

- Fentanyl strips available (hospitals, SUD treatment, HRs), and Xylazine test strips have been developed and are commercially available.
- Refer people with OUD to drug checking machines, safer injecting sites, (HRs).
- Educate patients to be aware of overdose risks no matter what drugs are used, and practice as much harm reduction as possible, as consistently as possible.

Harm Reduction for Patients

- Go slow, use less
- Try to avoid mixing substances
- Test your product if you can (fentanyl strips, xylazine strips, drug testing sites)
- Sniffing or smoking is probably safer than
- Try to avoid using alone. Because of the heavy sedation, be aware of your surroundings and your possessions, especially if you're somewhere that's not secure.
- If you are using alone, double down on other strategies. Have someone check on you. If you are using in a group, stagger your use so someone is always alert.
- Carry naloxone and know how to use it, look out for each other.
- Call 911, be aware that a xylazine overdose may need more care than naloxone.
- Be sure the airway is open, (comfortable seating position) as breathing may be blocked in slumped positions.

Group Question - Chat

- Are you aware of the programs in your area that provide harm reduction services?

Surveillance drug checking programs are available at some Syringe Services Programs (SSPs)
(<https://nextdistro.org/nysep>)

Resources

- OASAS, NYS OASAS Medical Advisory Panel (MAP) Xylazine Guidance, <https://mattersnetwork.org/wp-content/uploads/2023/04/OASAS-MAP-Xylazine-Guidance.4.27.23.pdf>
- OnPoint NYC, Harm Reduction Services, <https://onpointnyc.org/>
- Fentanyl test strips from your local overdose prevention program (<https://www.nyoverdose.org/>) or harm reduction organization or go to <https://mattersnetwork.org/request-test-strips/>
- FDA Alerts Health Care Professionals of Risks to Patients Exposed to Xylazine in Illicit Drug: <https://www.fda.gov/drugs/drug-safety-and-availability/fda-alerts-health-care-professionals-risks-patients-exposed-xylazine-illicit-drugs>
- Philadelphia Dept of Public Health, Risks of Xylazine Use and Withdrawal in People Who use Drugs in Philadelphia, March 2022, https://hip.phila.gov/document/2524/PDPH-HAN_Alert_1_Xylazine_03.16.2022.pdf/

Resources

New Jersey Harm Reduction Coalition: <https://njharmreduction.org/more-resources/>

State of New Jersey, Department of Health, NJHealth:
<https://www.nj.gov/health/news/2022/approved/20220118a.shtml>

Next Distro, New Jersey, Xylazine Quick Guide for People Who use Drugs,
<https://nextdistro.org/resources-collection/xylazine-quick-guide>

HarmReduction.org, Xylazine in the Drug Supply, <https://harmreduction.org/wp-content/uploads/2022/11/Xylazine-in-the-Drug-Supply-one-pager.pdf>

Philadelphia Dept of Public Health, Risks of Xylazine Use and Withdrawal in People Who use Drugs in Philadelphia, March 2022, https://hip.phila.gov/document/2524/PDPH-HAN_Alert_1_Xylazine_03.16.2022.pdf/

FDA Alerts Health Care Professionals of Risks to Patients Exposed to Xylazine in Illicit Drug:
<https://www.drugs.com/fda/fda-alerts-health-care-professionals-risks-patients-exposed-xylazine-illicit-14569.html#:~:text=FDA%20is%20aware%20of%20increasing%20reports%20of%20serious,in%20animals%20as%20a%20sedative%20and%20pain%20reliever>



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Contact and Survey

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If you are sharing a computer with others, please type your names in the chat box.

Please fill out your evaluation forms – it will only take a couple of minutes! Just scan the code with the camera on your smart phone, click on the link in the chat box, or type the link into your browser: <https://ttc-gpra.org/P?s=370268>

Don't worry if you can't – an email with the link will be sent to you along with a copy of the slides.

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