

# Drugs and Adolescent Mental Health



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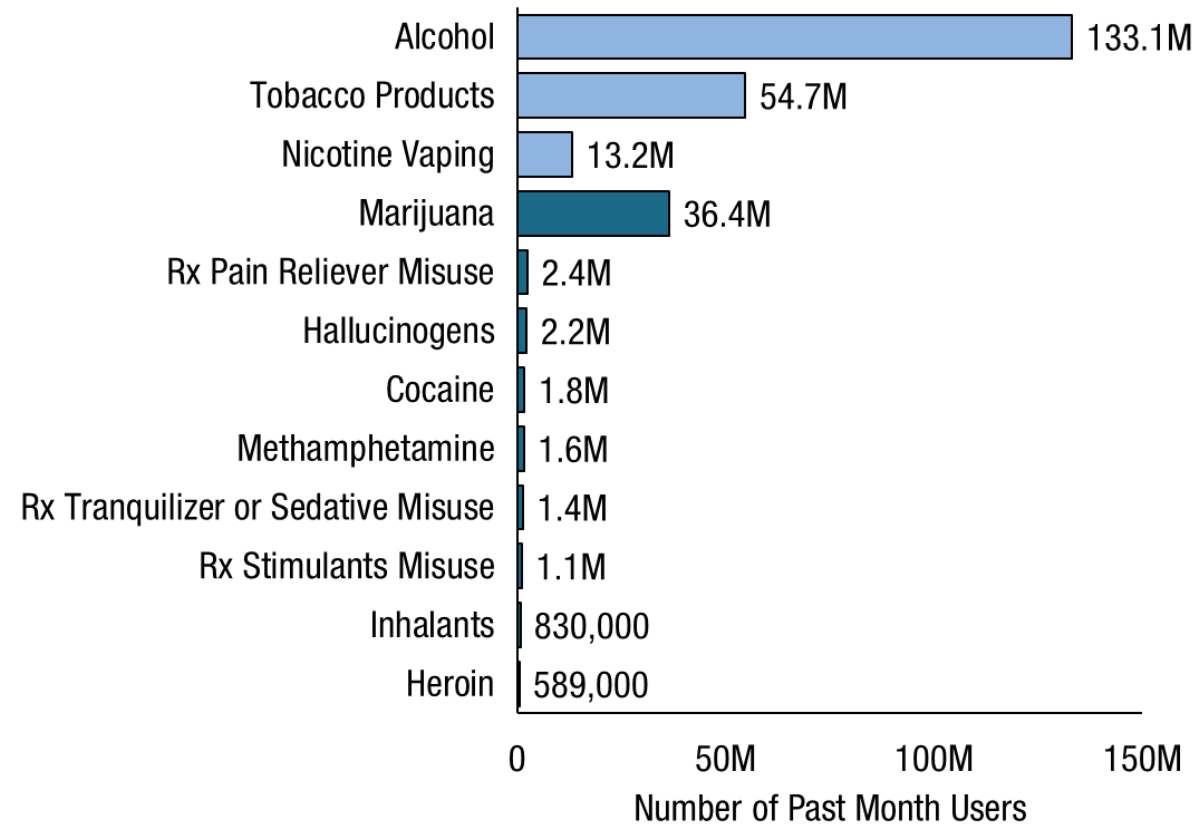
# Results from the 2021 National Survey on Drug Use and Health: Graphics from the Key Findings Report

Center for Behavioral Health Statistics and Quality  
Substance Abuse and Mental Health Services Administration  
U.S. Department of Health and Human Services



**SAMHSA**  
Substance Abuse and Mental Health  
Services Administration

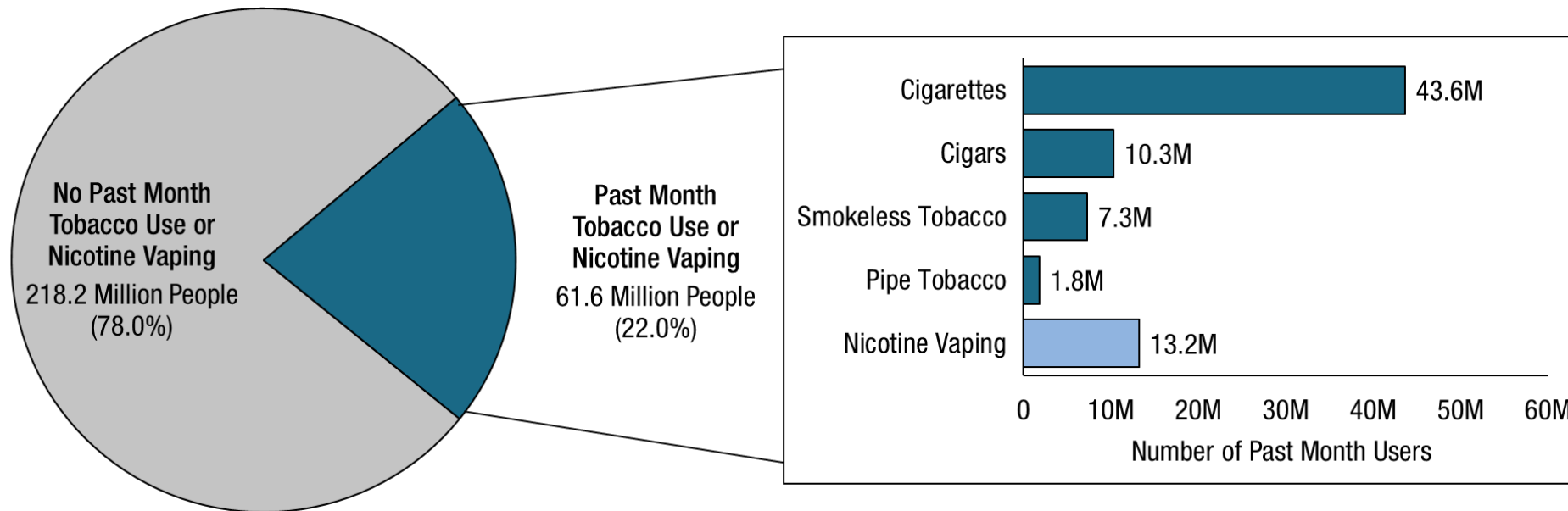
# Past Month Substance Use: Among People Aged 12 or Older; 2021



Rx = prescription.

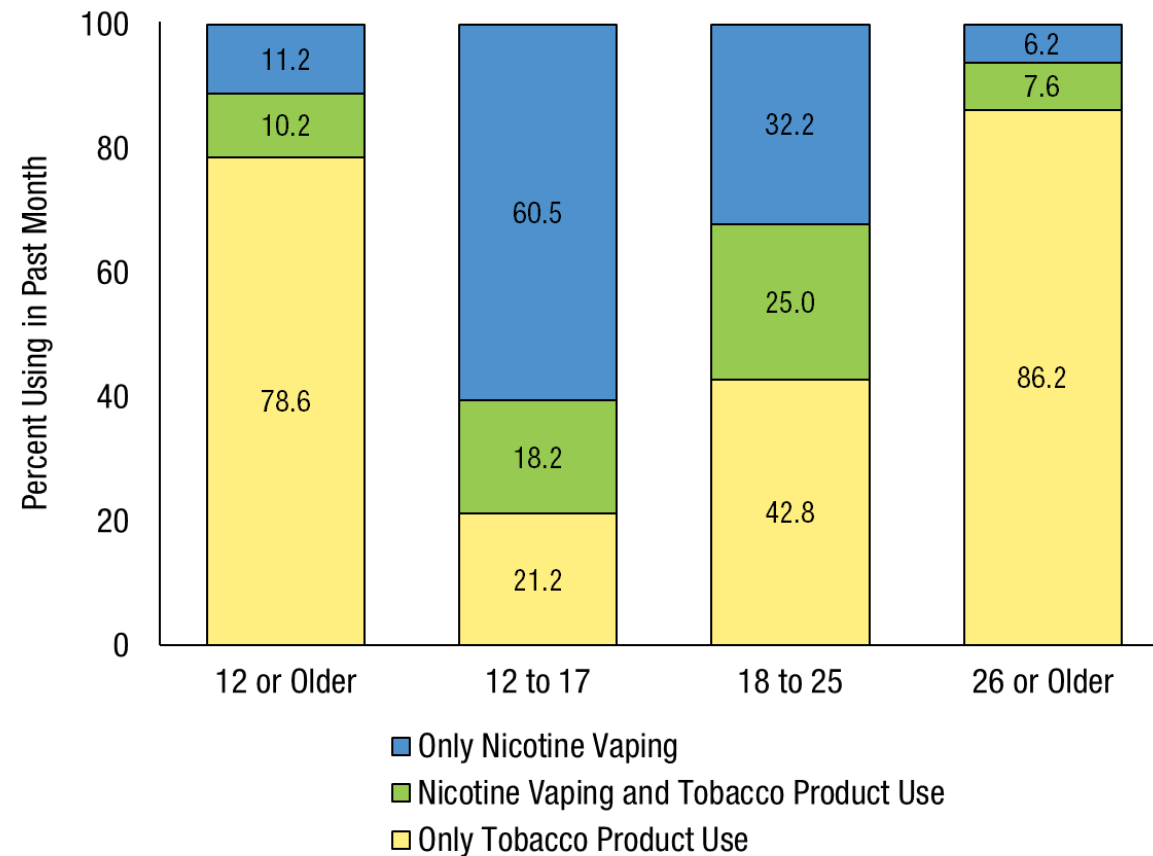
Note: The estimated numbers of current users of different substances are not mutually exclusive because people could have used more than one type of substance in the past month.

# Past Month Tobacco Use or Nicotine Vaping: Among People Aged 12 or Older; 2021

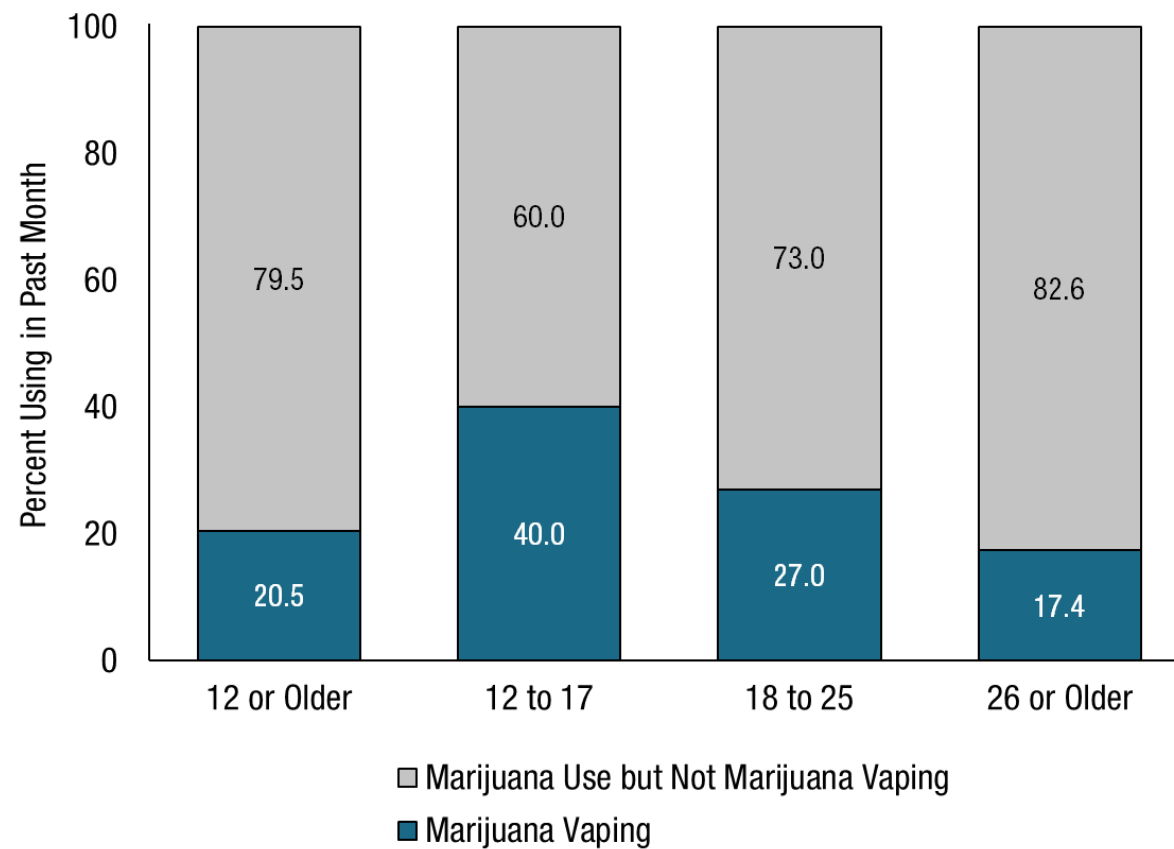


Note: The estimated numbers of current users of different tobacco products or nicotine vaping are not mutually exclusive because people could have used more than one type of tobacco product or used tobacco products and vaped nicotine in the past month.

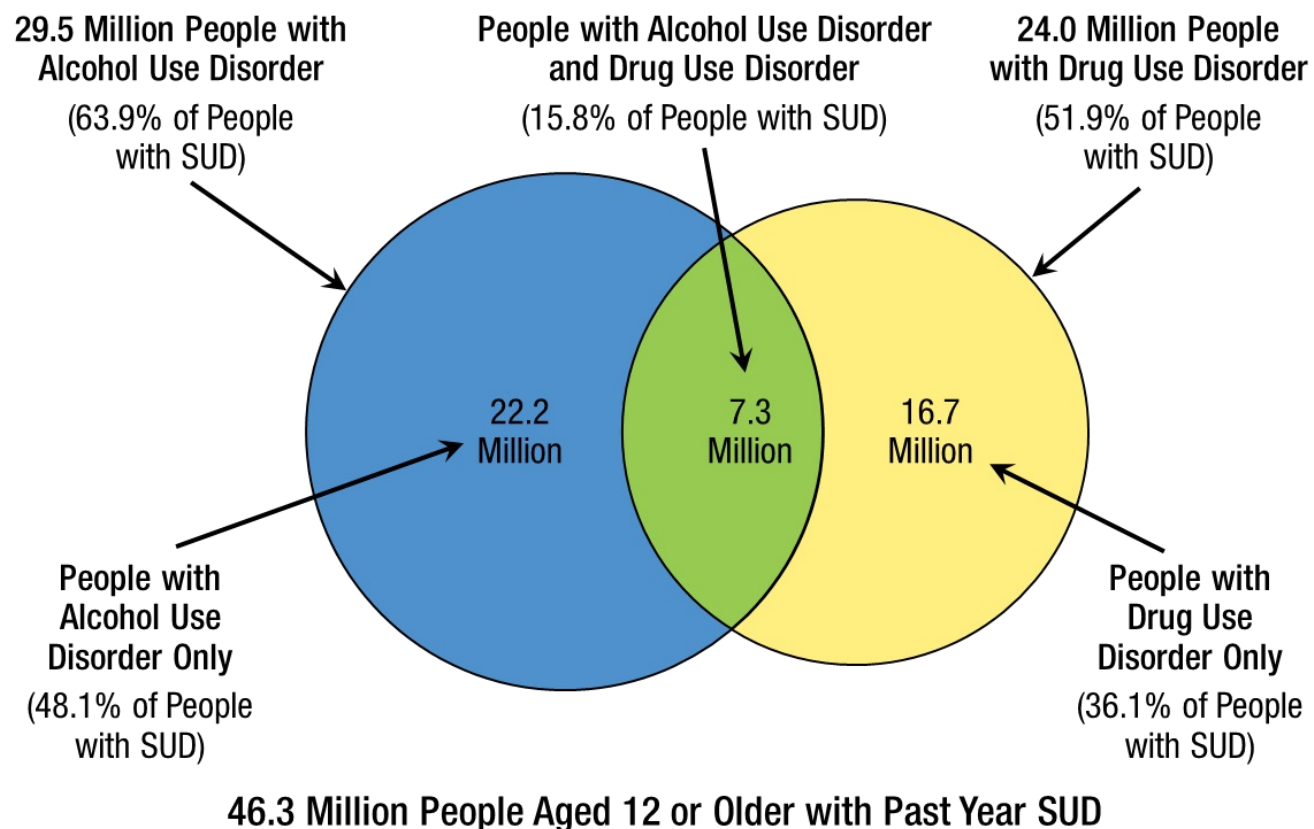
# Type of Past Month Tobacco Use and Nicotine Vaping: Among Past Month Nicotine Product Users Aged 12 or Older; 2021



# Type of Marijuana Use: Among Past Month Marijuana Users Aged 12 or Older; 2021

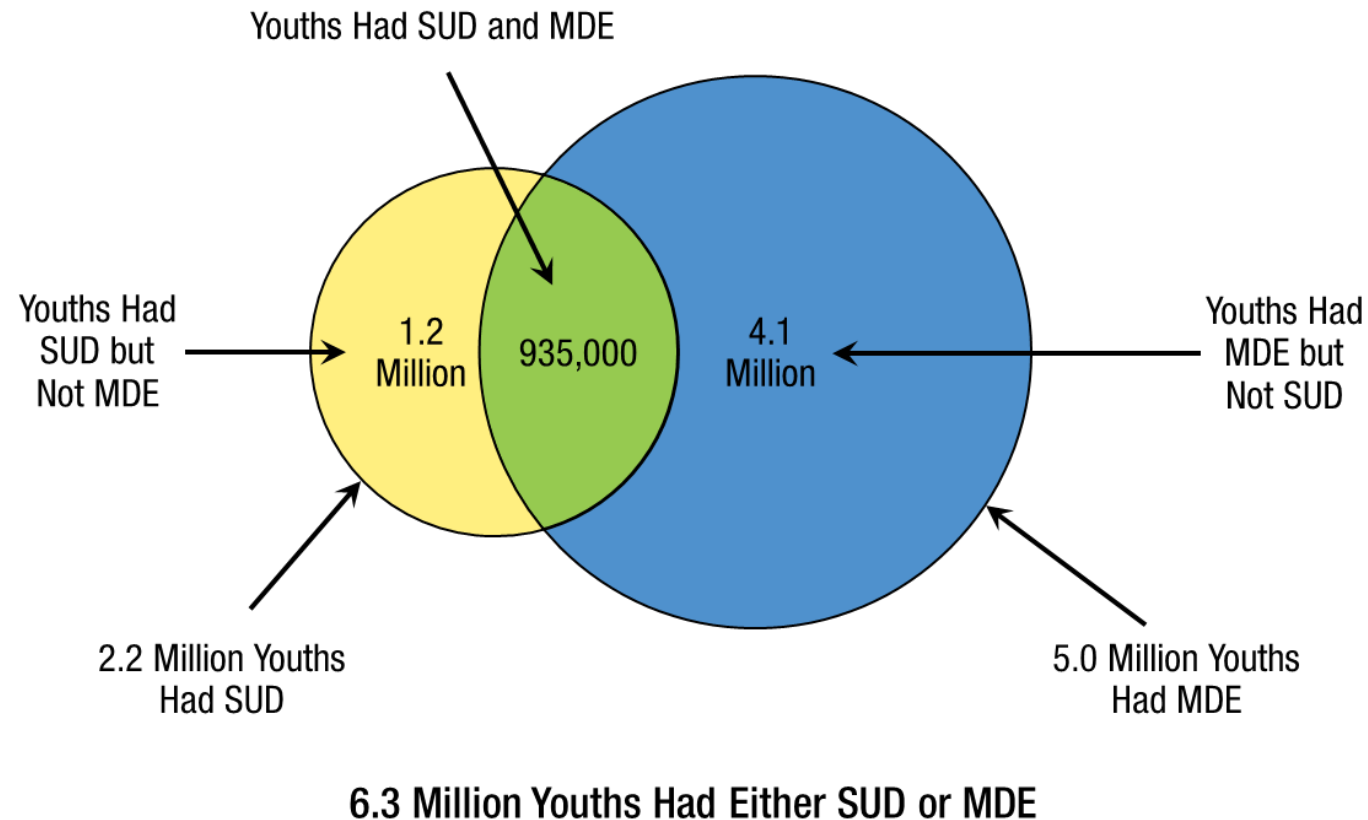


# Alcohol Use Disorder and Drug Use Disorder in the Past Year: Among People Aged 12 or Older with a Past Year Substance Use Disorder (SUD); 2021



Note: Drug Use Disorder includes data from all past year users of marijuana, cocaine, heroin, hallucinogens, inhalants, methamphetamine, and prescription psychotherapeutic drugs (i.e., pain relievers, tranquilizers, stimulants, or sedatives).

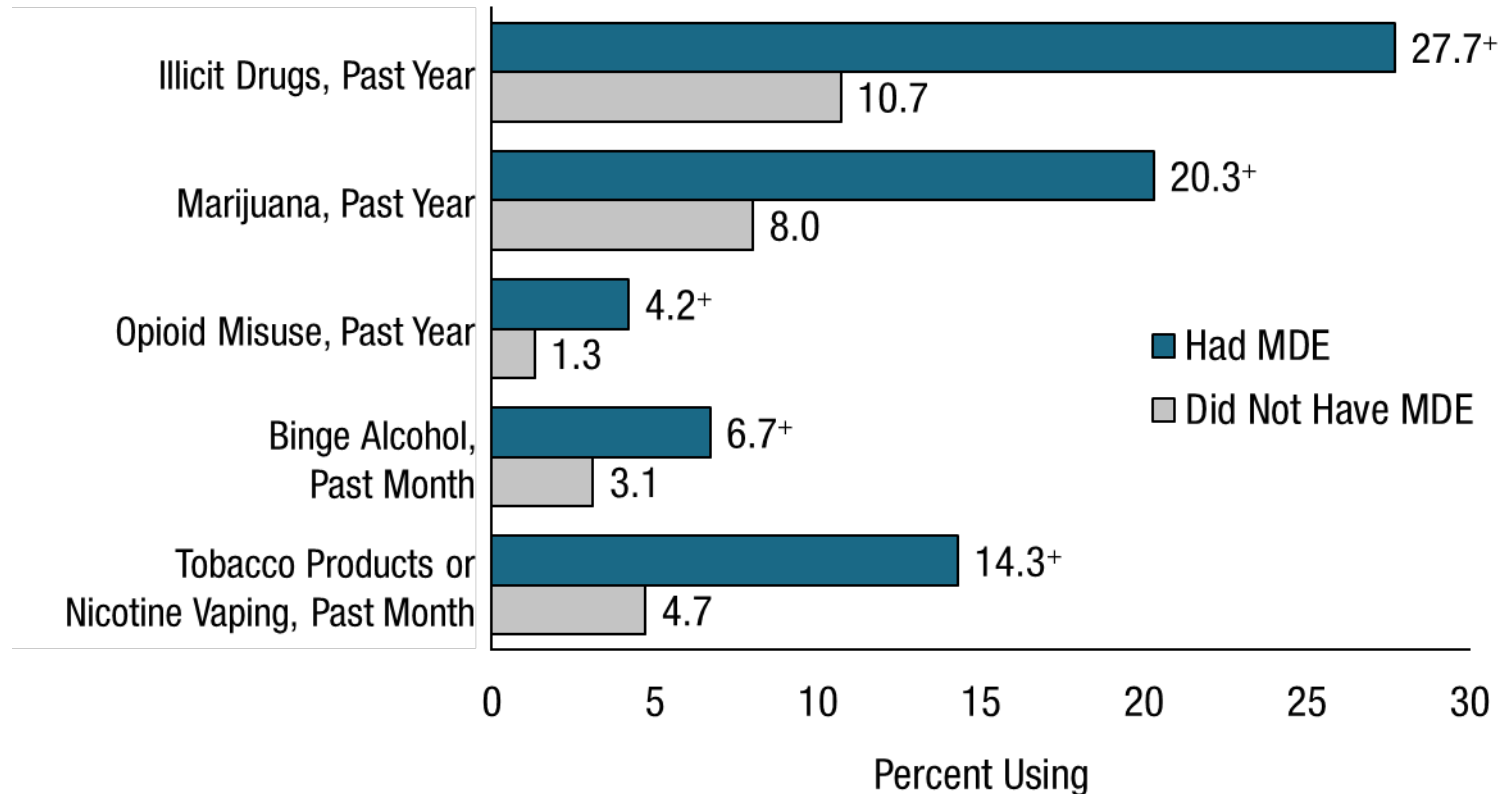
# Past Year Substance Use Disorder (SUD) and Major Depressive Episode (MDE): Among Youths Aged 12 to 17; 2021



Note: Youth respondents with unknown MDE data were excluded.



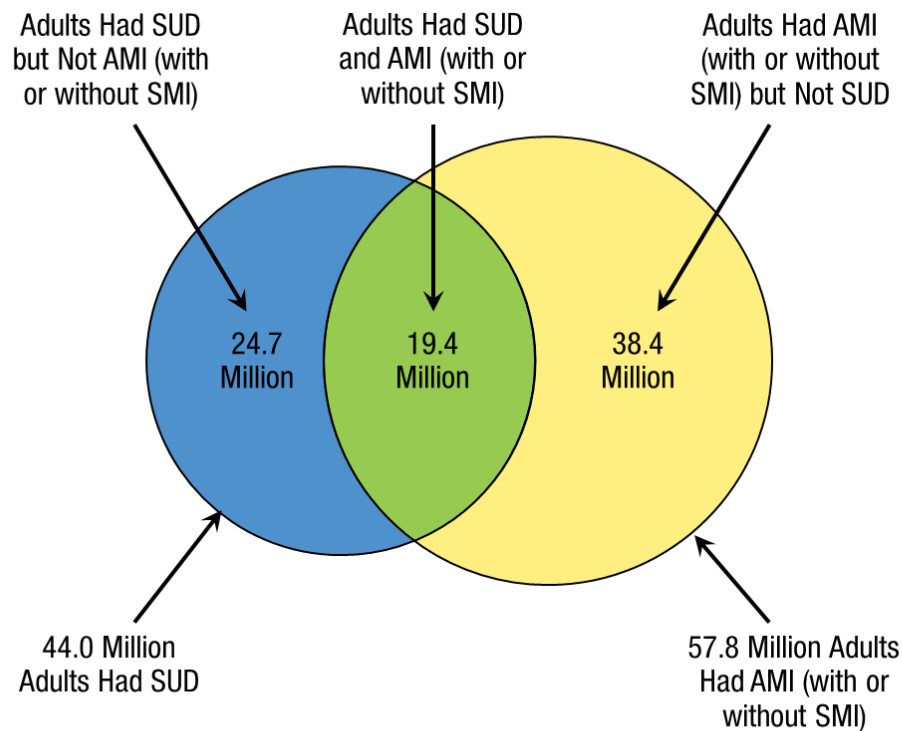
# Substance Use: Among Youths Aged 12 to 17; by Past Year Major Depressive Episode (MDE) Status, 2021



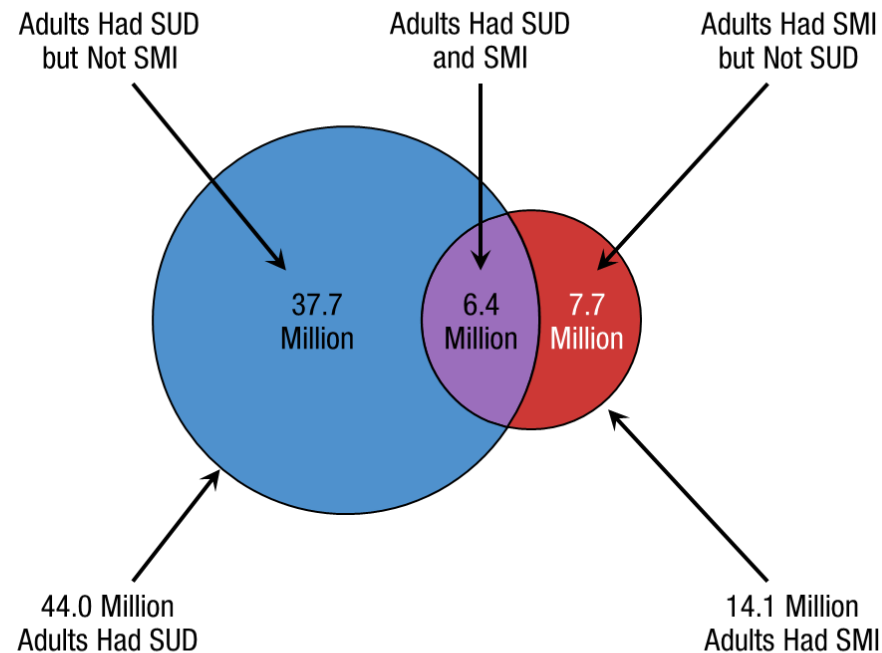
+ Difference between this estimate and the estimate for youths without MDE is statistically significant at the .05 level.

Note: Youth respondents with unknown MDE data were excluded.

# Past Year Substance Use Disorder (SUD), Any Mental Illness (AMI), and Serious Mental Illness (SMI): Among Adults Aged 18 or Older; 2021

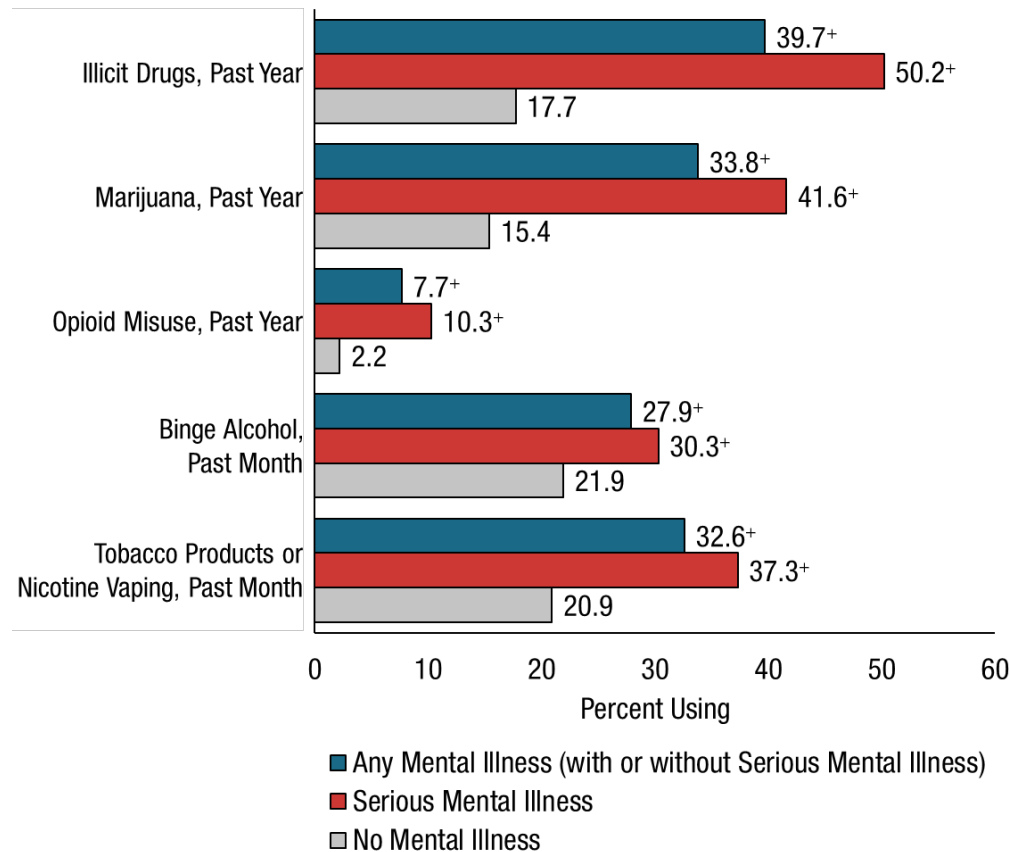


82.5 Million Adults Had Either SUD or AMI (with or without SMI)



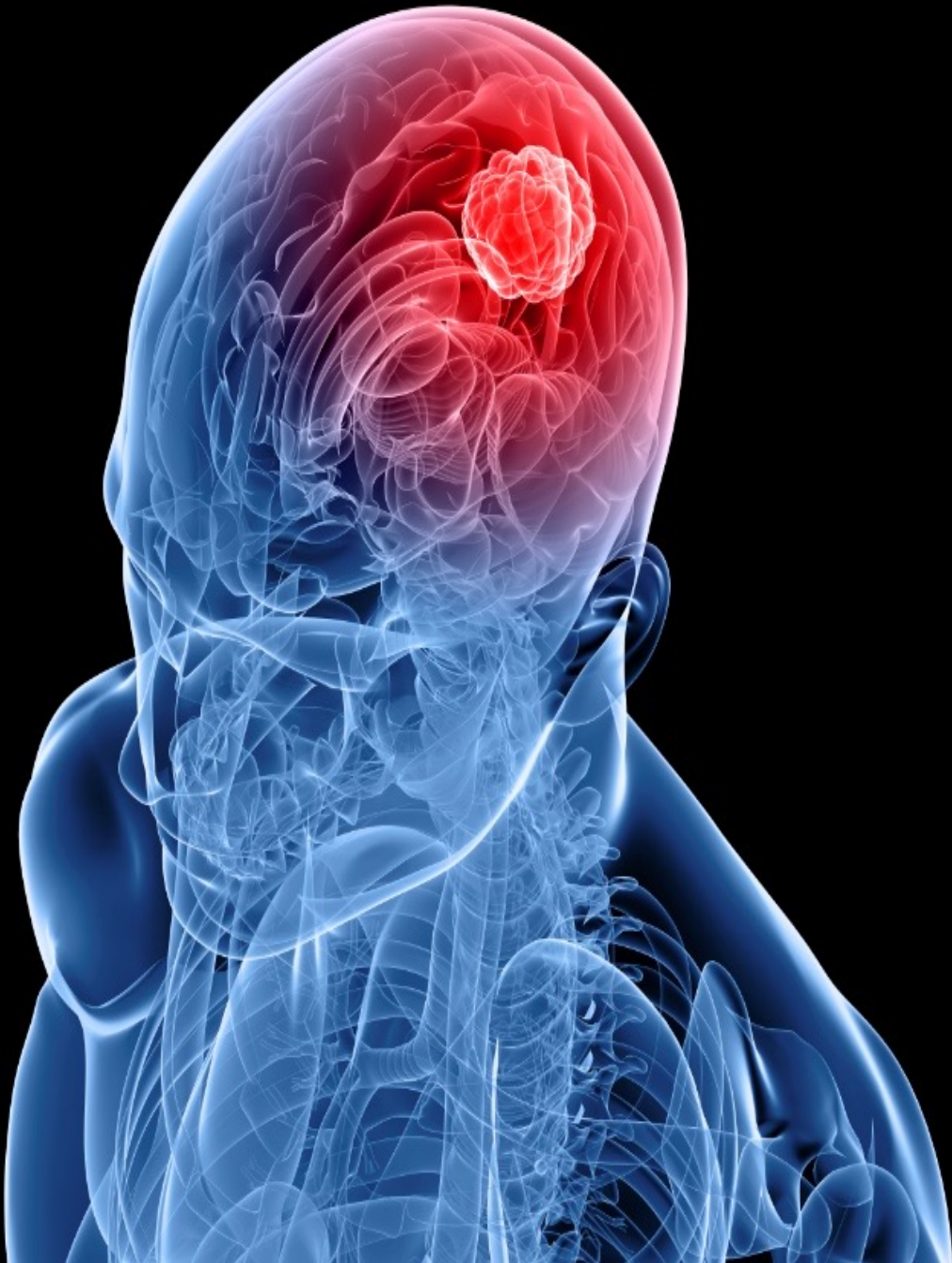
51.7 Million Adults Had Either SUD or SMI

# Substance Use: Among Adults Aged 18 or Older; by Mental Illness Status, 2021



+ Difference between this estimate and the estimate for adults aged 18 or older without mental illness is statistically significant at the .05 level.

# The Brain Science of Addiction



# American Society of Addiction Medicine (ASAM)

“Addiction is a primary, chronic disease of brain reward, motivation, memory and related circuitry. Dysfunction in these circuits leads to characteristic biological, psychological, social, and spiritual manifestations. This is reflected in an individual pathologically pursuing reward and/or relief by substance use and other behaviors.”

# Drug Use and Addiction



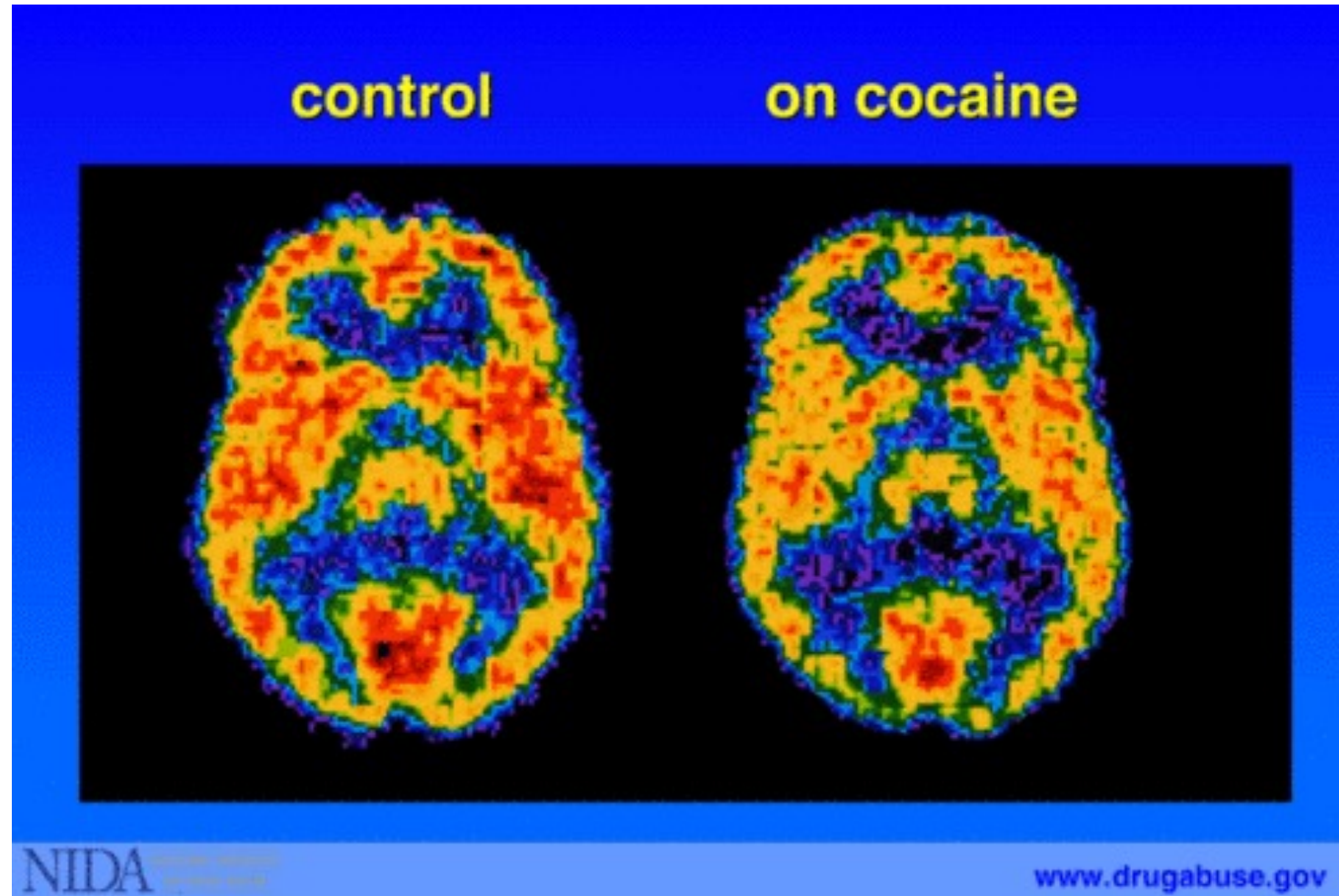
Brain imaging studies show physical changes in areas of the brain when a drug is ingested that are critical to:

- Judgment
- Decision making
- Learning and memory
- Behavior control

These changes alter the way the brain works and help explain the compulsion and continued use despite negative consequences

# The Rise and Fall of the Cocaine High

# Effects of Cocaine on the Brain



(National Institute on Drug Abuse, 2007)

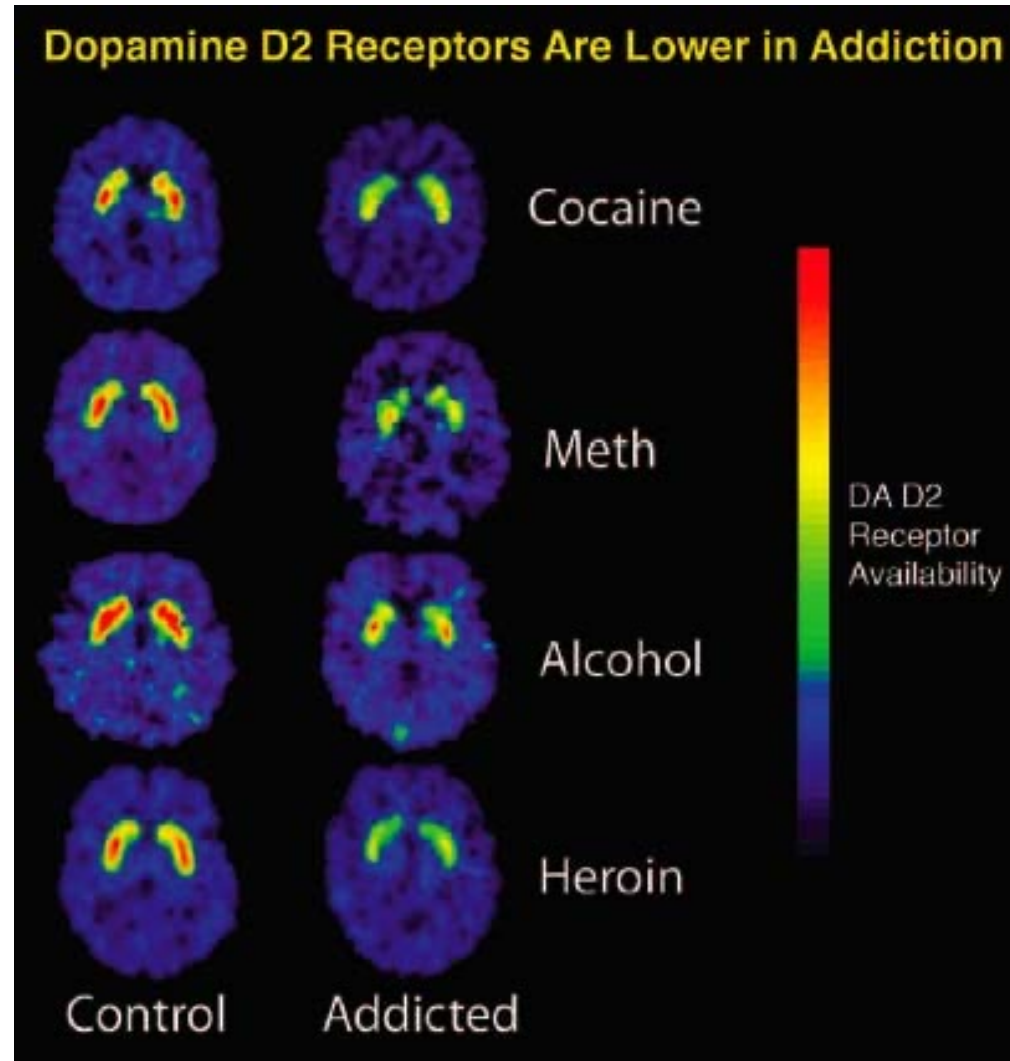


# Dopamine and Substance Use

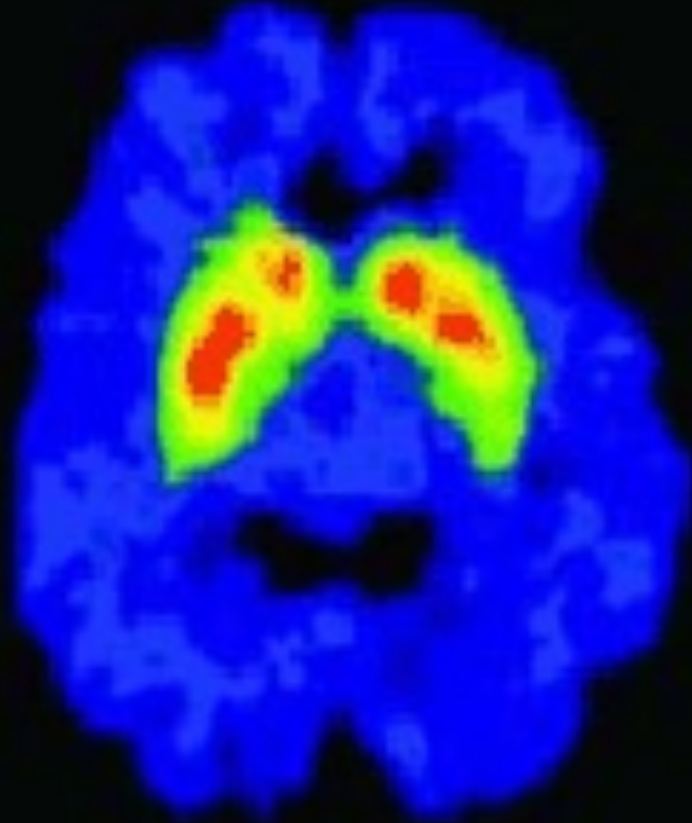
## Dopamine:

- A neurotransmitter that is released during a pleasurable experience
- Connected to the reward circuit of the brain
- Acts by reinforcing behaviors that are pleasurable
- Leads to neural changes that help form habits
- Released during substance use and reinforces the connection between the substance and the pleasurable experience
- Trains the brain to repeat the pleasurable experience

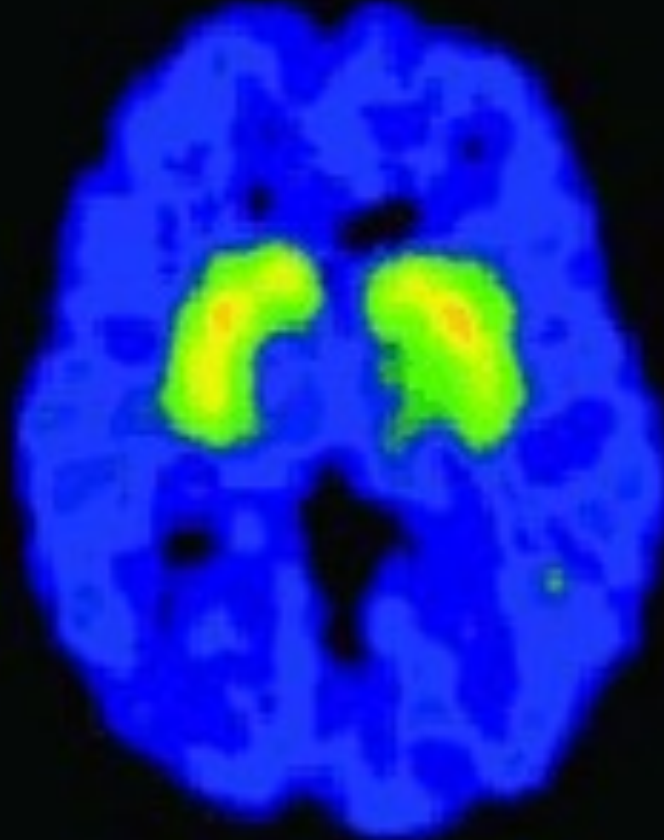
# Dopamine Receptors in Addiction



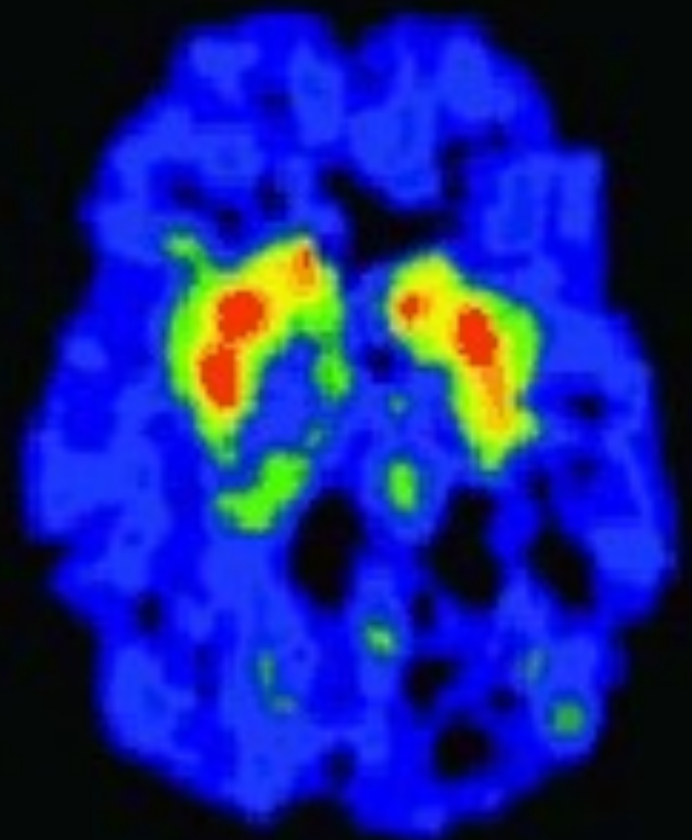
# Effects of Meth on the Brain



**Healthy Person**



**Meth Use Disorder  
1 month abstinence**



**Meth Use Disorder  
14 months abstinence**

## How Do Drugs Impact the Teenage Brain

- Planning
- Judgement
- Trouble performing easy tasks
- slowed thinking and reaction time
- Memory loss or impairment
- Lower IQ

## Common Parts of the Brain Impacted

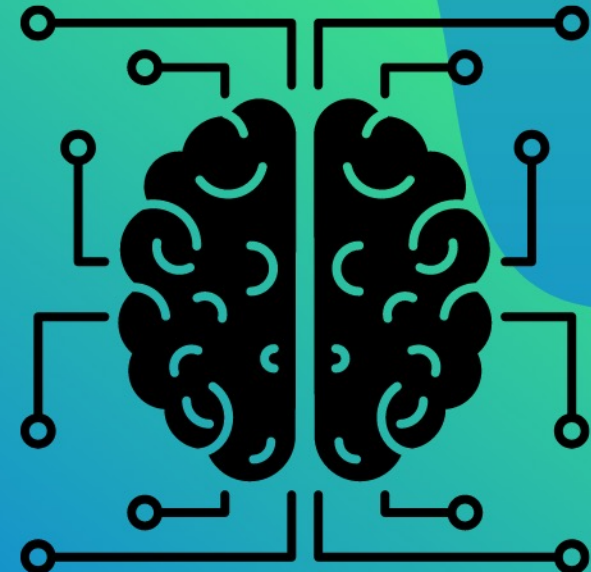
- Neurotransmitters
- Dopamine and serotonin production
- Prefrontal cortex

## Long Term Effects & Consequences

- Dangerous behaviors
- Difficulty in school
- Addiction and dependency
- Co-occurring mental health disorders

# TEENS ARE AT RISK!

- Teens who use cannabis regularly have, on average, **one grade point lower** than their peers.
- Kids who begin drinking before age 15 are **4x more likely** to become addicted than people who start at age 21.
- Teens who use cannabis may **lose up to 8 IQ points** between childhood and adulthood.



# The Effect of Parental Substance Use on Families

# In-Home Indicators of Potential Parental Substance Use

- A report of substance use in the child protective services call or report
- Paraphernalia observed or reported in the home
- The smell of alcohol, marijuana, or other drugs on the parent or in the home
- A child reports use by parent(s) or adults in the home
- Parent's behavior suggests intoxication
- Parent exhibits signs of a substance use disorder
- Parent reports their own substance use
- Parent shows or reports experiencing physical effects of a substance use disorder and/or withdrawal

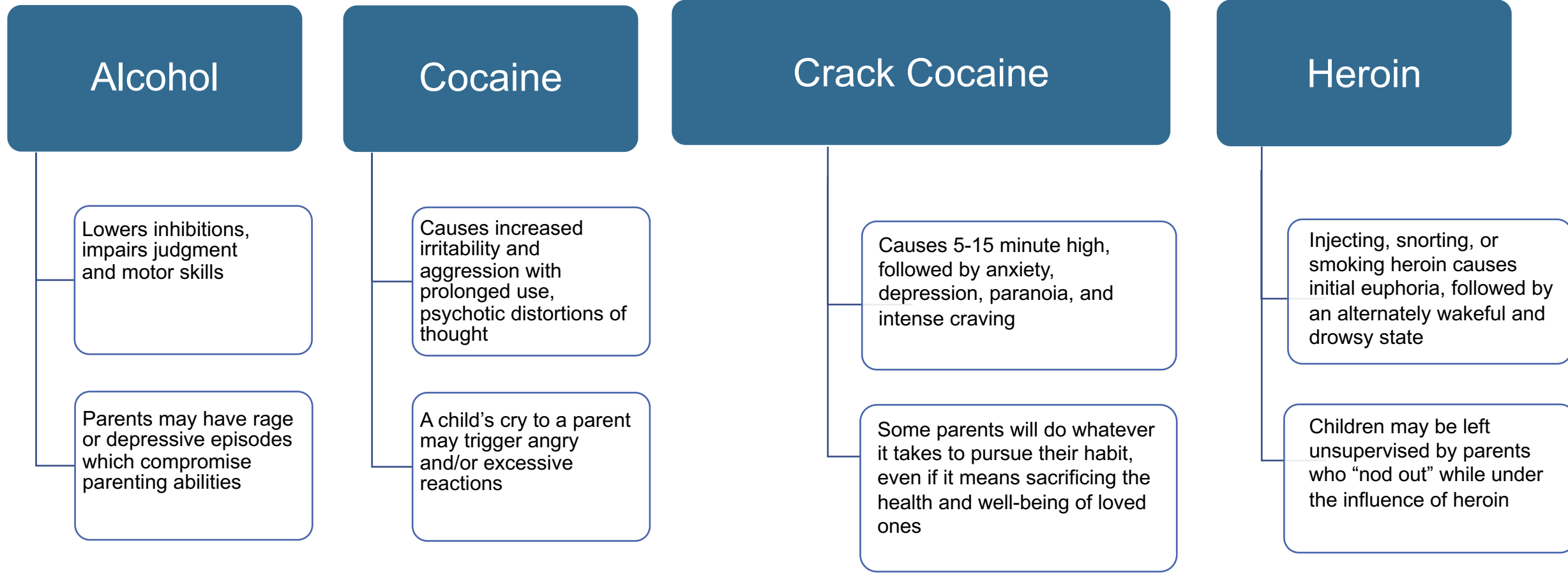
Note: This list is not meant to include all possible signs.

(Breshears, 2009)

# Effects of Substance Use Disorders on Family Functioning

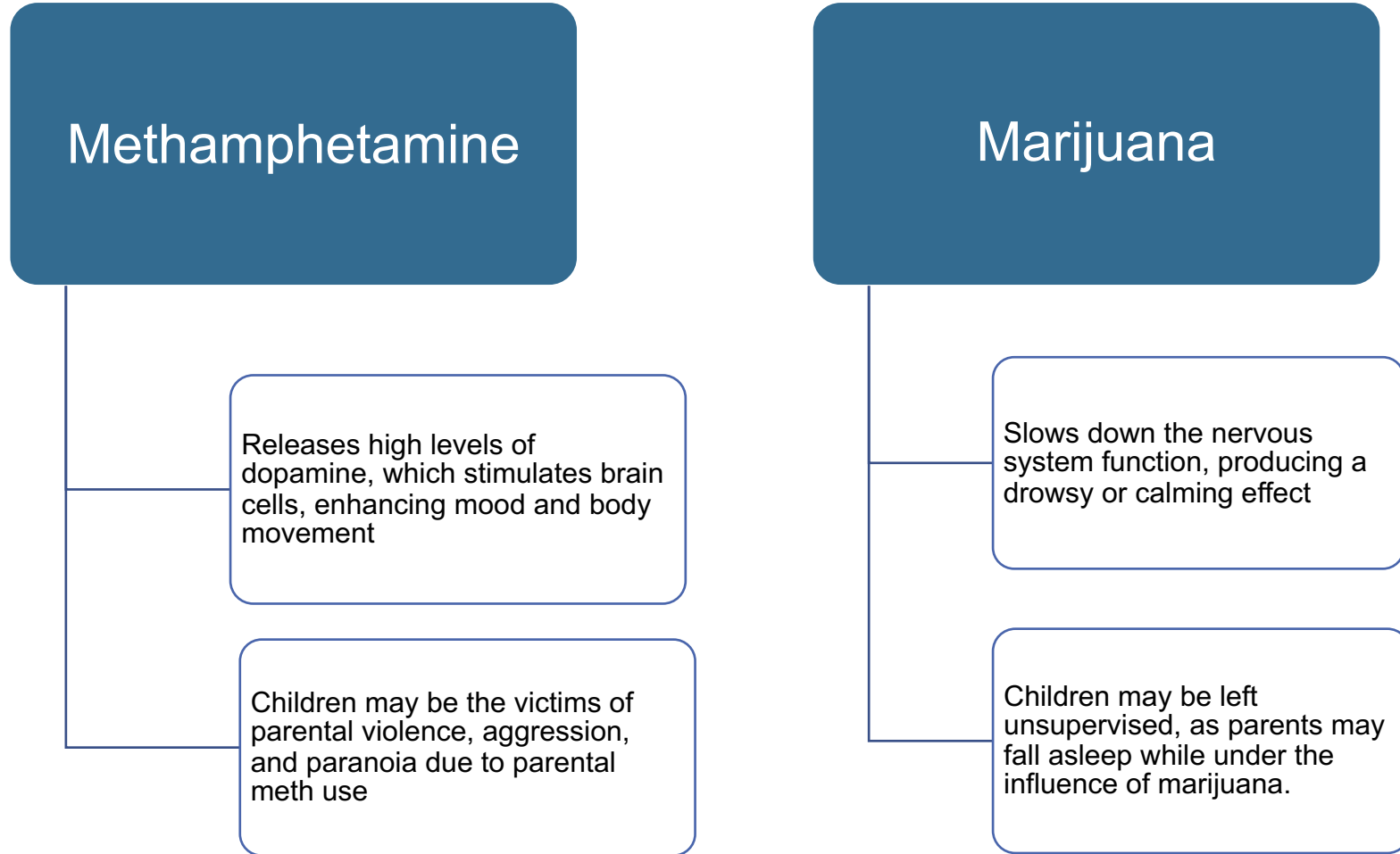
- Child development
- Household safety
- Psychosocial impact
- Parenting skills
- Intergenerational trauma and mental health problems

# The Risks of Parental Substance Use Disorders on Children: Alcohol and Illegal Drugs

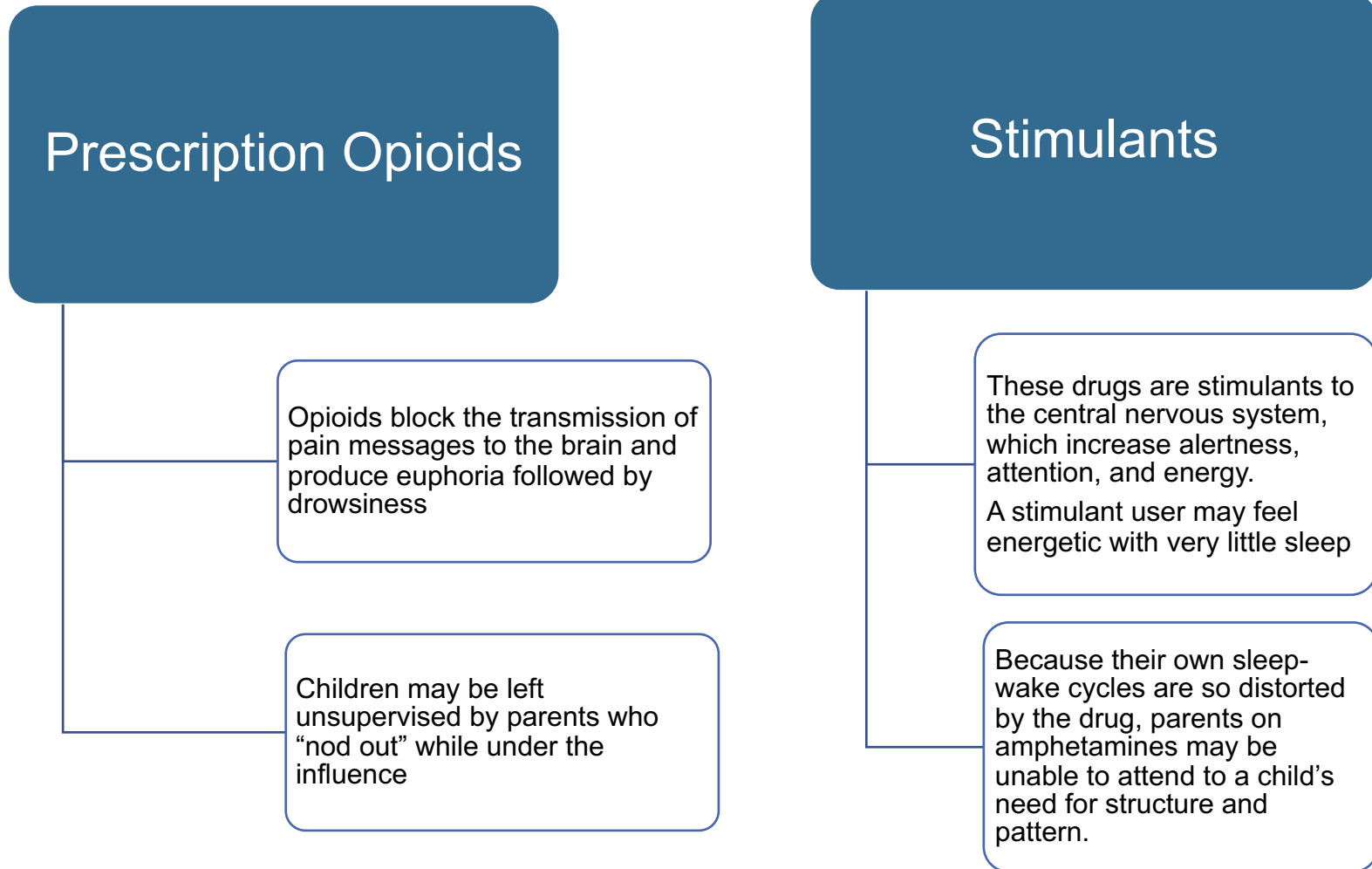


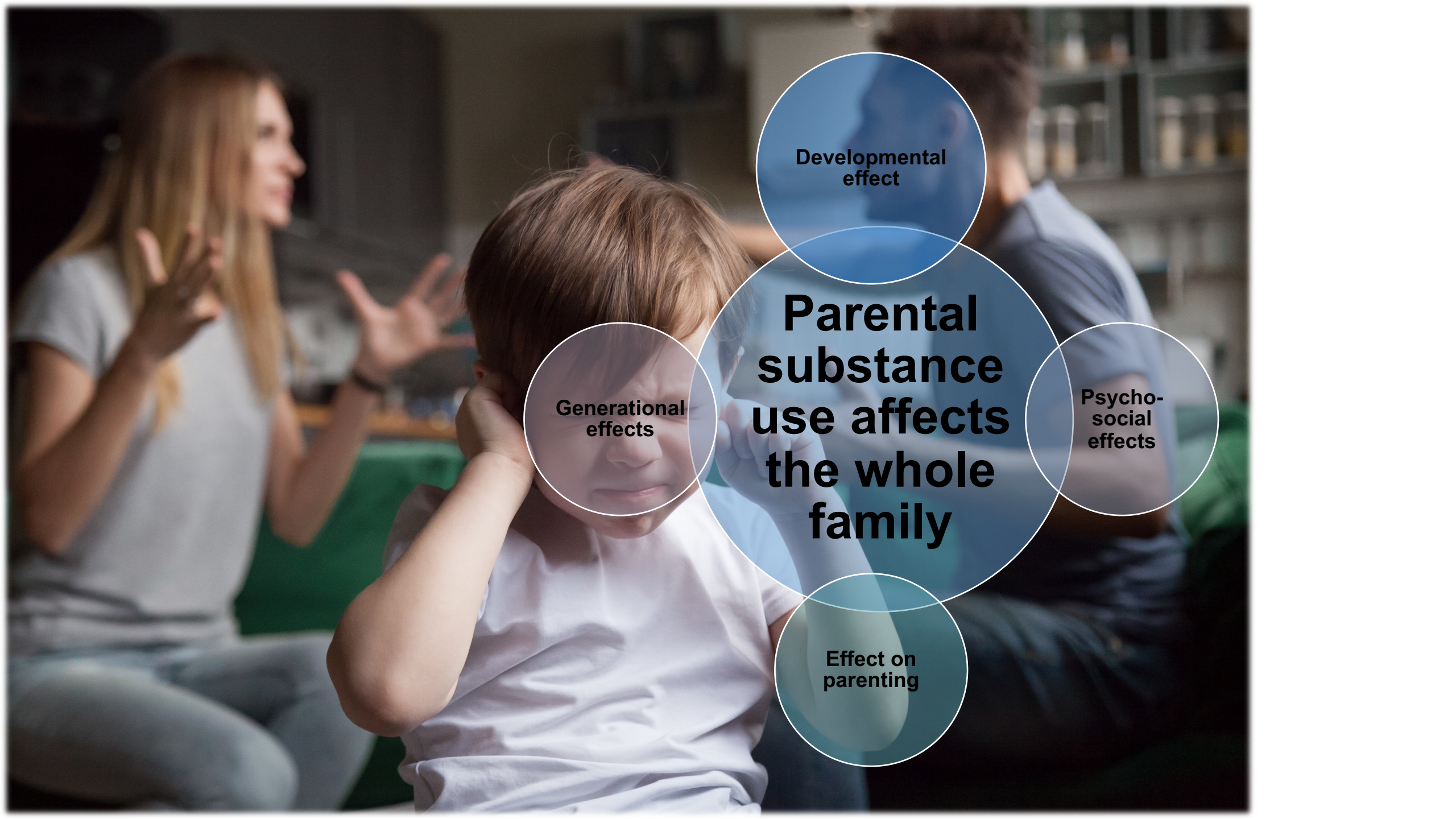


# The Risks of Parental Substance Use Disorders on Children: Alcohol and Illegal Drugs



# The Risks of Parental Substance Use Disorders on Children: Prescription Drugs and Pain Medications





**Developmental  
effect**

**Parental  
substance  
use affects  
the whole  
family**

**Psycho-  
social  
effects**

**Generational  
effects**

**Effect on  
parenting**

# Overview of the Treatment Process



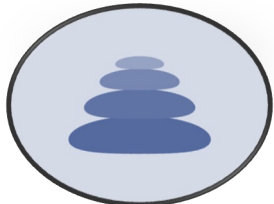
**Early Identification, Screening,  
and Brief Intervention**

Done at earliest point possible



**Comprehensive  
Assessment**

Determine extent and severity  
of disease



**Stabilization**

Via medically supervised detoxification,  
when necessary



**Timely and Appropriate  
Substance Use Disorder Treatment**

Address substance use disorder and  
co-occurring issues



**Continuing Care  
and Recovery Support**

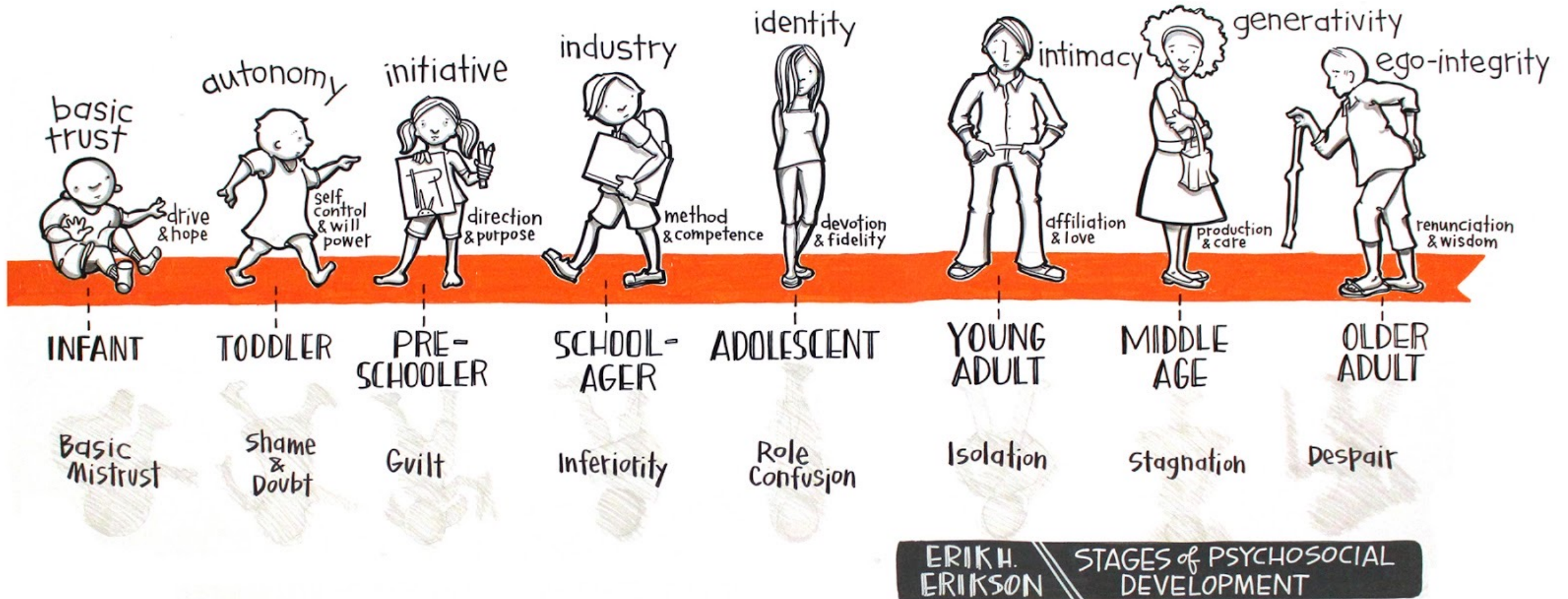
Help parents sustain recovery, maintain  
family safety and stability

# Family-Centered Approach



Recognizes that addiction is a **brain disease** that affects the entire **family** and that recovery and well-being occurs **in the context of the family**

# Drug use is a developmental problem !!



# Developmental Phases

- Each stage of development, from infancy to early adulthood, is associated with a certain expected range of:
  - intellectual ability
  - language development
  - cognitive, emotional and psychological functioning
  - social competency skills
- Each needs attention to prevent the onset of drug use and dependence!!!

# Infancy

## Protective Traits, Skill Sets & Experiences:

- Responsiveness to the environment and caregivers' interactions
- Caregivers who are responsive
- Surroundings that provide stimulation
- Learning how to be effective in having needs met
- Easy to soothe
- Not temperamental

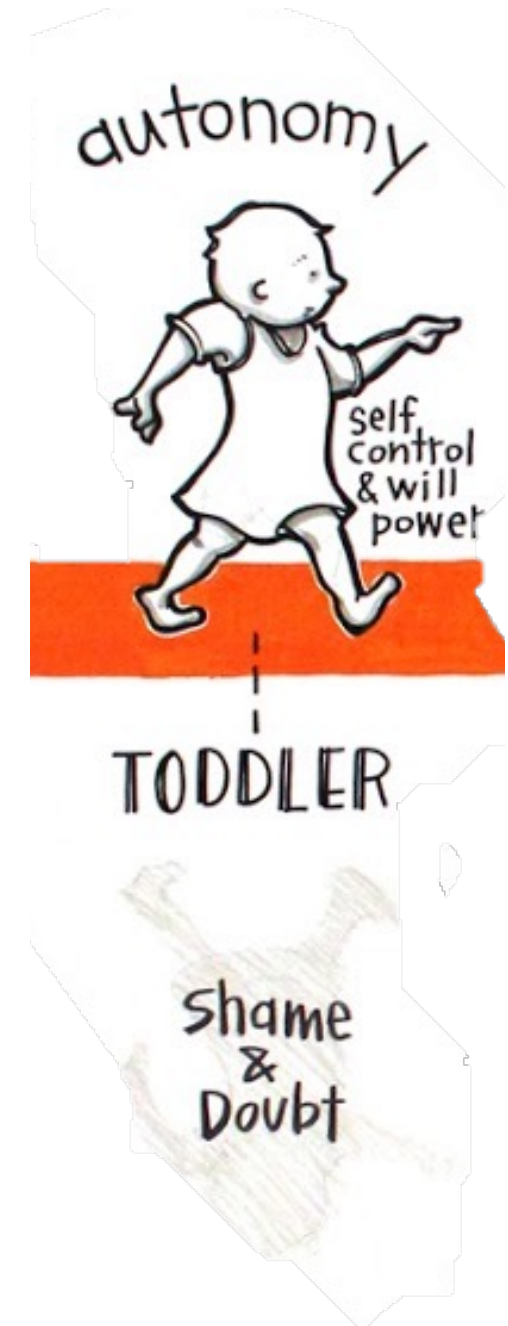




# Early Childhood

Factors Predictive of Later Social Competence:

- Language
- Cooperation
- Control of emotions
- Collective conscience
- Social and emotional skills (including perception of others' emotions)
- Problem solving



# Middle Childhood

Emerging Executive Cognitive and Emotional Regulatory Functions:

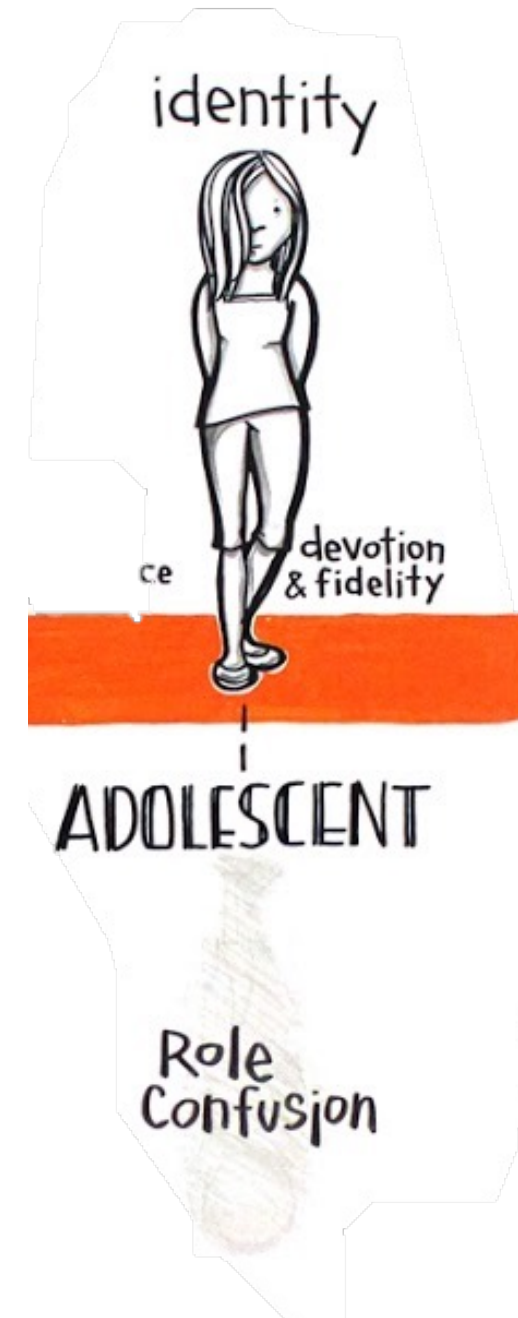
- Maintaining attention
- Controlling emotions
- Social inclusivity
- Effective communication
- Receptivity to others
- Accurate perception of emotion in self and others



# Adolescence

Integral to self-regulation of emotion and behavior to prepare for adulthood:

- Social and emotional skills to establish stable relationships
- Sensitivity to feelings & needs of others
- Conflict resolution
- Prosocial skills
- Impulse control
- Decision making
- Problem solving



# Significance of Developmental Phases for Prevention

- Behavioral problems underlying drug use all involve poor self-regulation.
- Social and physical environmental risk factors impact on executive-cognitive functions and emotion regulation.

This impact depends on:

- Personal characteristics (e.g., depression, high activity levels, attention deficit disorder, etc.) which develop and evolve over time.
  - Developmental period of exposure to risk factors.
  - Not only adolescence!!!
- Developmental phase determines what program components and policies will be understandable and executable.

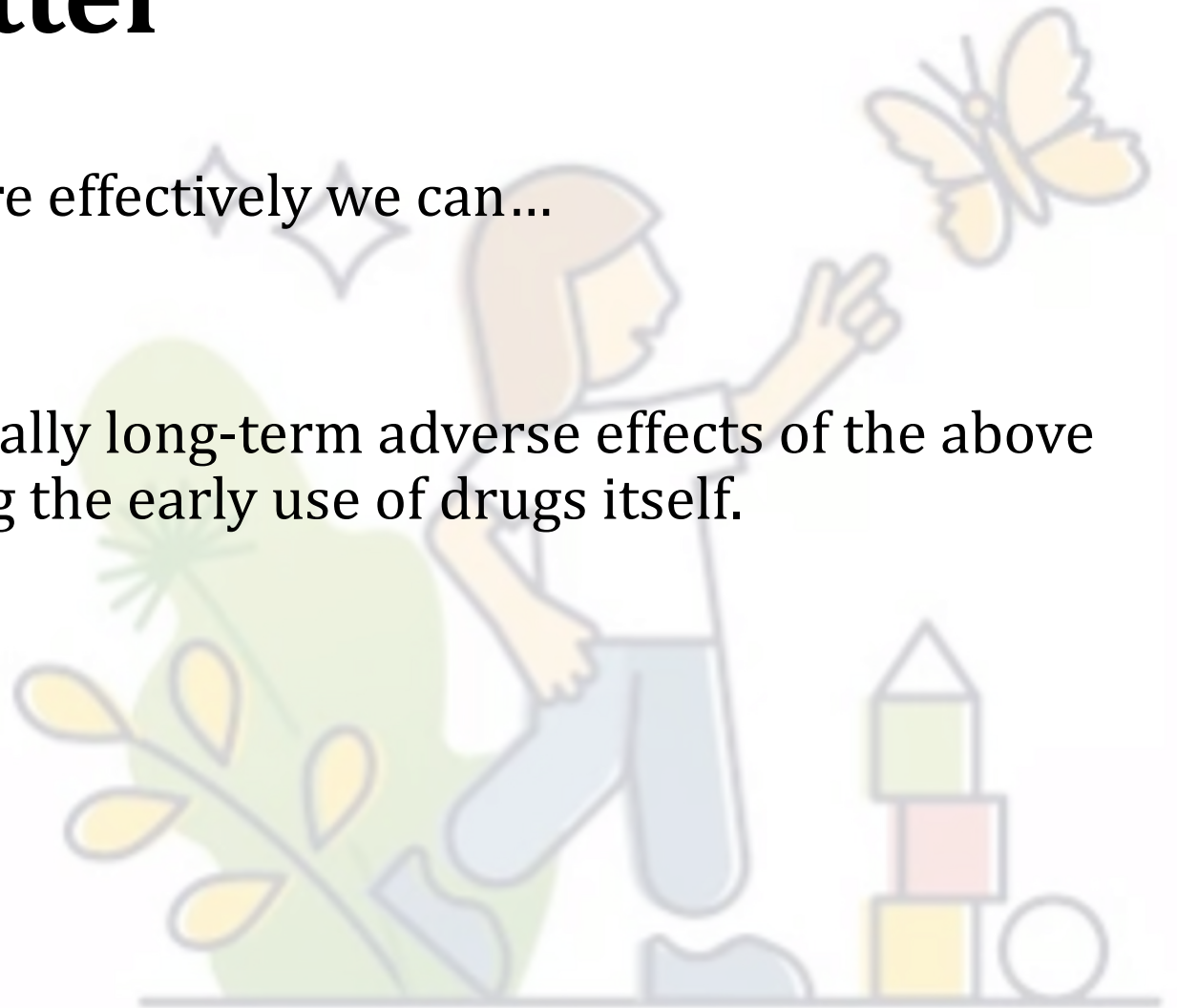


**Final thoughts**

# The earlier, the better

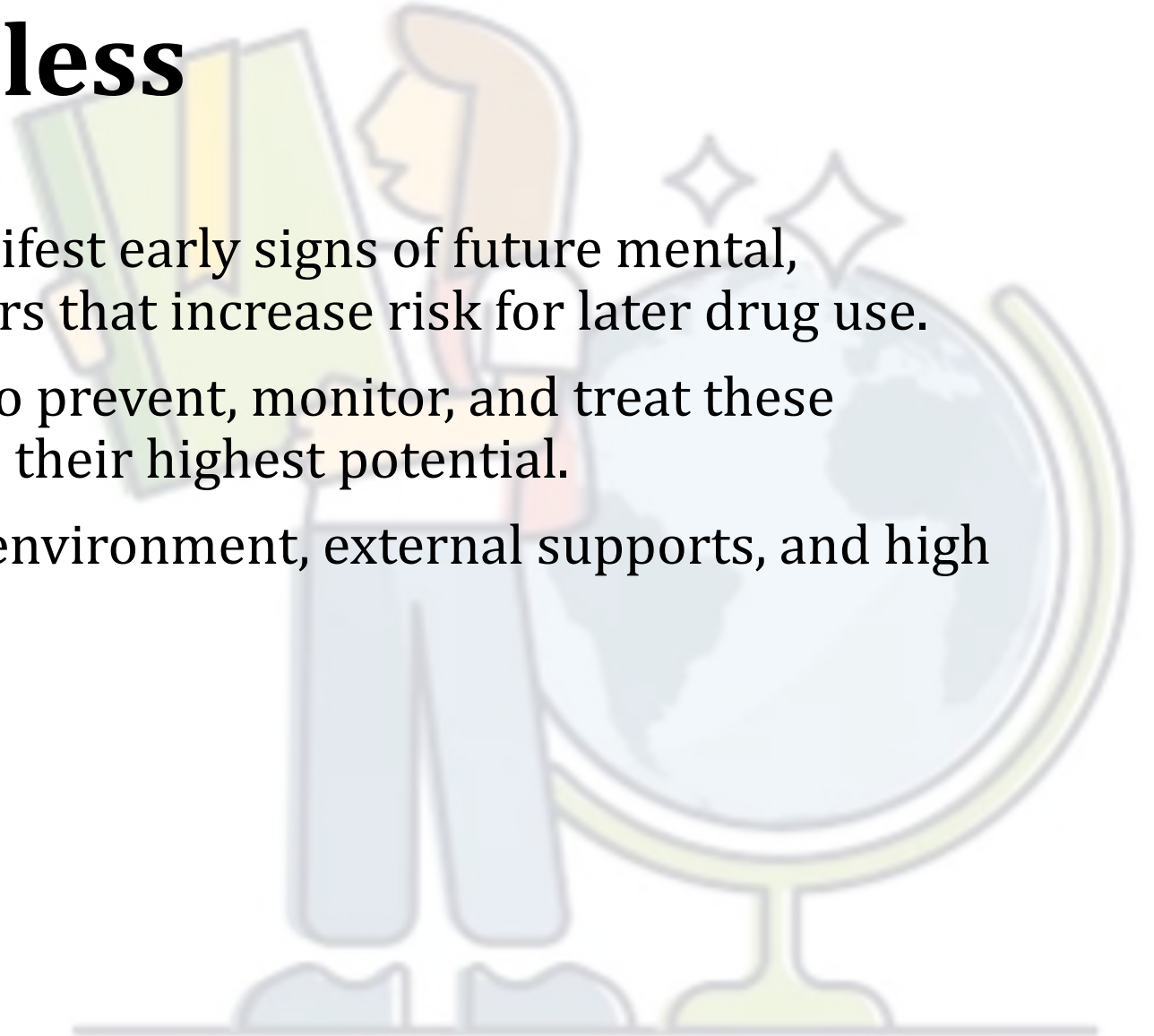
The earlier the intervention, the more effectively we can...

- Redirect behavioral pathways
- Increase resiliency
- Reduce exposure to the potentially long-term adverse effects of the above etiological conditions, including the early use of drugs itself.



# Prevention is timeless

- Even very young children can manifest early signs of future mental, emotional, and behavioral disorders that increase risk for later drug use.
- A great deal is known about how to prevent, monitor, and treat these problems to ensure children reach their highest potential.
- In all cases and ages, an enriched environment, external supports, and high quality education is essential.





# It's never too late!

- Many mental health, emotional, and behavioral problems stem from impulsive, sensation-seeking activities in adolescence
- Problems important to monitor and prevent include:
  - Early alcohol, tobacco, and other drug use
  - Violent and delinquent behaviors
  - Depression and suicide
  - Risky sexual behaviors
- In adulthood, influences persist and require address to prevent further escalation of use, addiction and relapse.
- Fortunately, there is tremendous brain plasticity and maturation of functions through adolescence and early adulthood
  - Provides a solid window of opportunity to improve outcomes

