

Challenges to Accessing Substance Use Disorder (SUD) Care in Youth

Modar Sukkarieh, MD

Developmental Pediatrics, Addiction Medicine

Sharon Levy, MD, MPH

Chief, Division of Addiction Medicine

Professor of Pediatrics, Boston Children's Hospital



Disclosure of Information

Modar Sukkarieh, MD

April 27, 2025, 10:15 AM – 11:30 AM

Modar Sukkarieh, MD

- ☀ I do not have any relationships with ineligible companies to disclose.



Epidemiology of Substance Use Disorders

=> 22 % of the US population > 12 yr old had used substances in the past year

=> 75 % of individuals with (past year use) met DSM 5 SUD criteria

Epidemiology of Substance Use Disorders

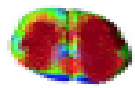
⇒ **22 % of the US population > 12 yr old had used substances in the past year'**

⇒ **75 % of individuals with (past year use) met DSM 5 SUD criteria**

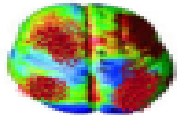
Almost 80% of Americans >18 yrs old with a SUD reported starting use before 17 yrs of Age

Key Elements to understanding SUD in Adolescents

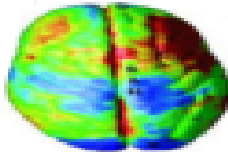
1- Adolescents' active brain development puts them at a high risk for Substance Use and Use disorders



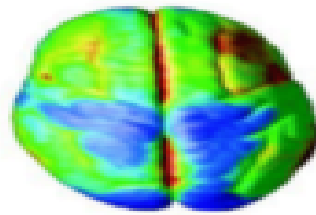
0 yr



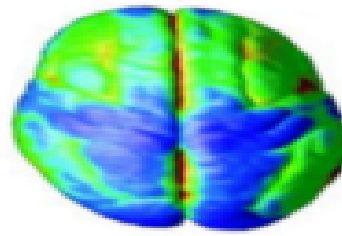
3 yr



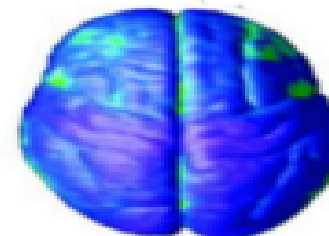
6 yr



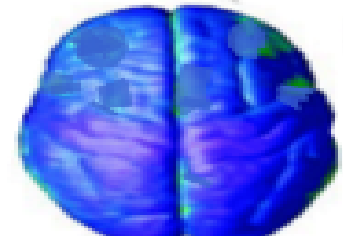
10 yr



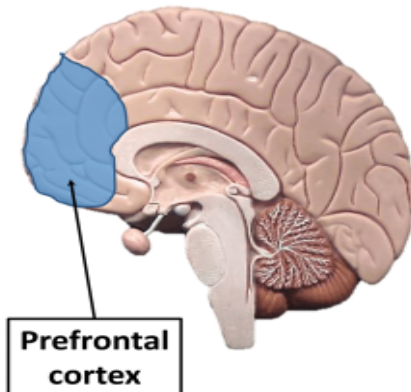
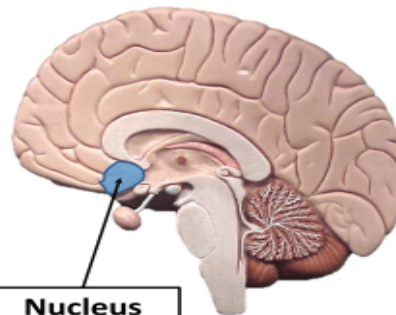
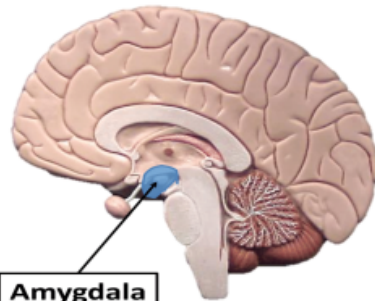
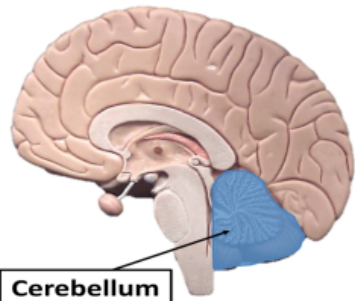
14 yr



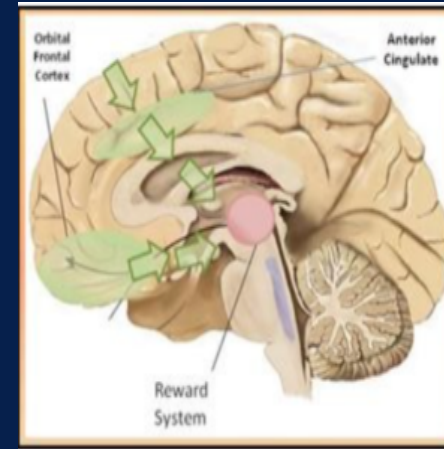
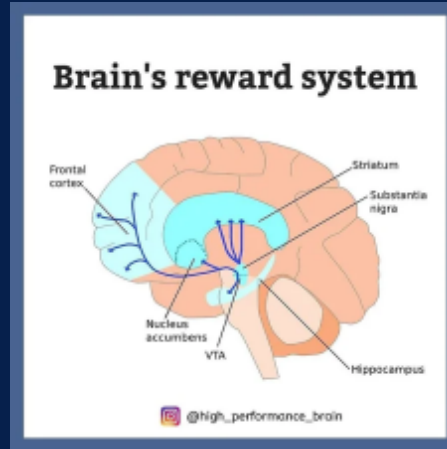
18 yr



22 yr



Risky Decision Making: The End Result of Two Processes



Excitation (emotional reaction)

Learned reward(dopamine) -driven response

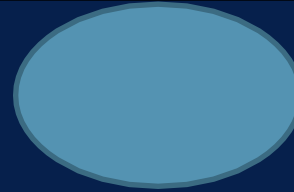
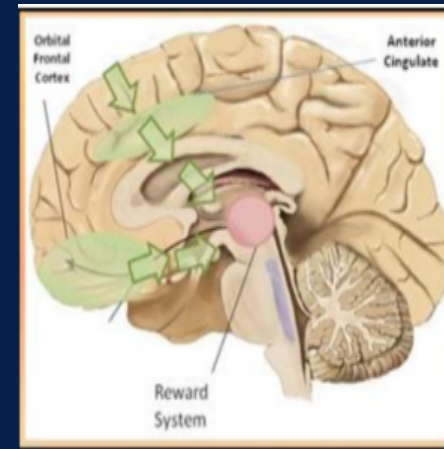
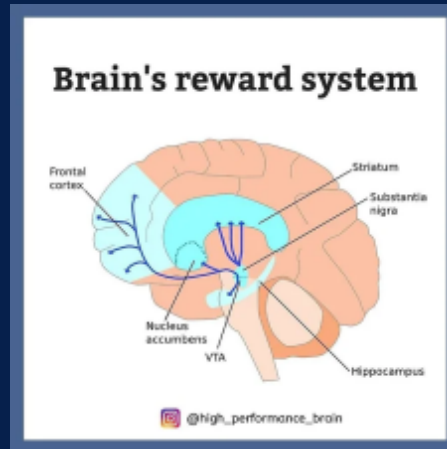
Inhibition: (Cognitive Control)

Goal-relevant information processing and actions

Casey BJ, Jones RM. "Neurobiology of the adolescent brain and behavior: implications for substance use disorders." J Am Acad Child Adolesc Psychiatry. 2010 Dec

Risky Decision making in Adolescents

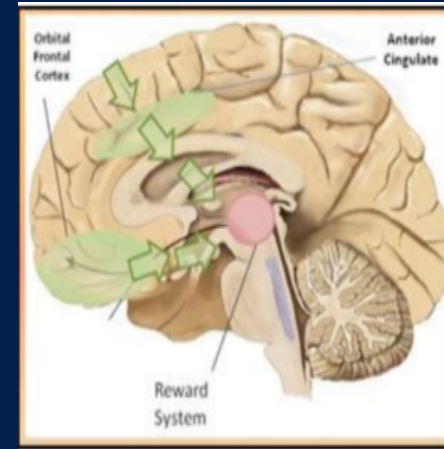
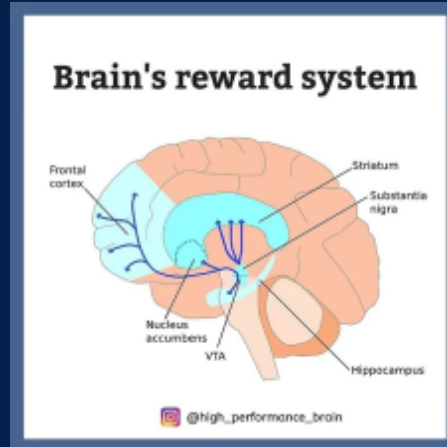
Factors increasing
risk of Substance
Use:



Risky Decision making in Adolescents

Factors increasing
risk of Substance
Use:

-Seeking Novelty

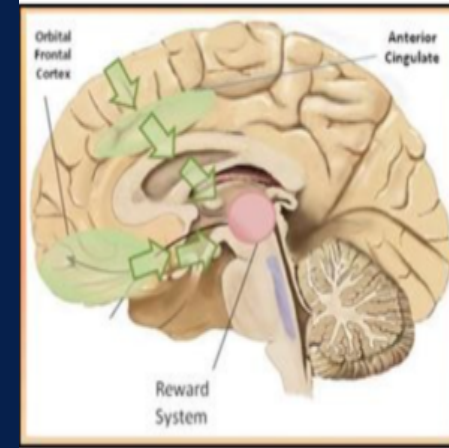
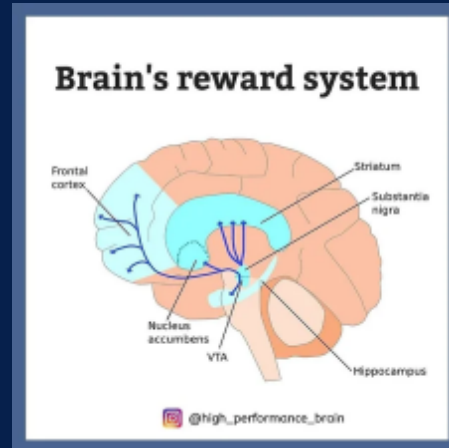


Dahl RE. "Adolescent brain development: a period of vulnerabilities and opportunities". Keynote address. Ann N Y Acad Sci. 2004 Jun;

Risky Decision making in Adolescents

Factors increasing risk of Substance Use:

- Seeking Novelty
- Hyper active excitatory circuits

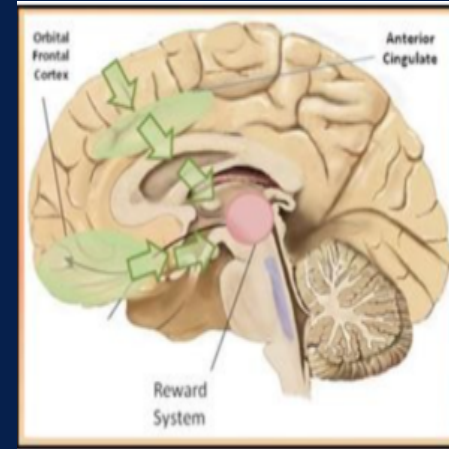
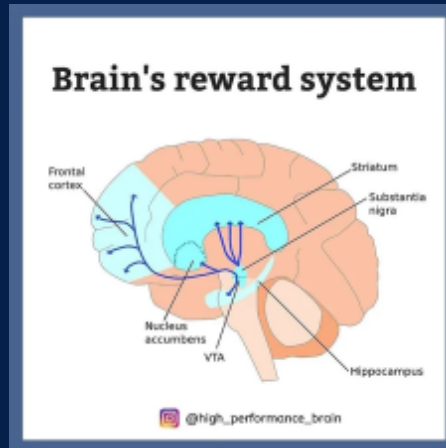


Dahl RE. "Adolescent brain development: a period of vulnerabilities and opportunities". Keynote address. Ann N Y Acad Sci. 2004 Jun;
Arain M, "Maturation of the adolescent brain." Neuropsychiatr Dis Treat. 2013

Risky Decision making in Adolescents

Factors increasing risk of Substance Use:

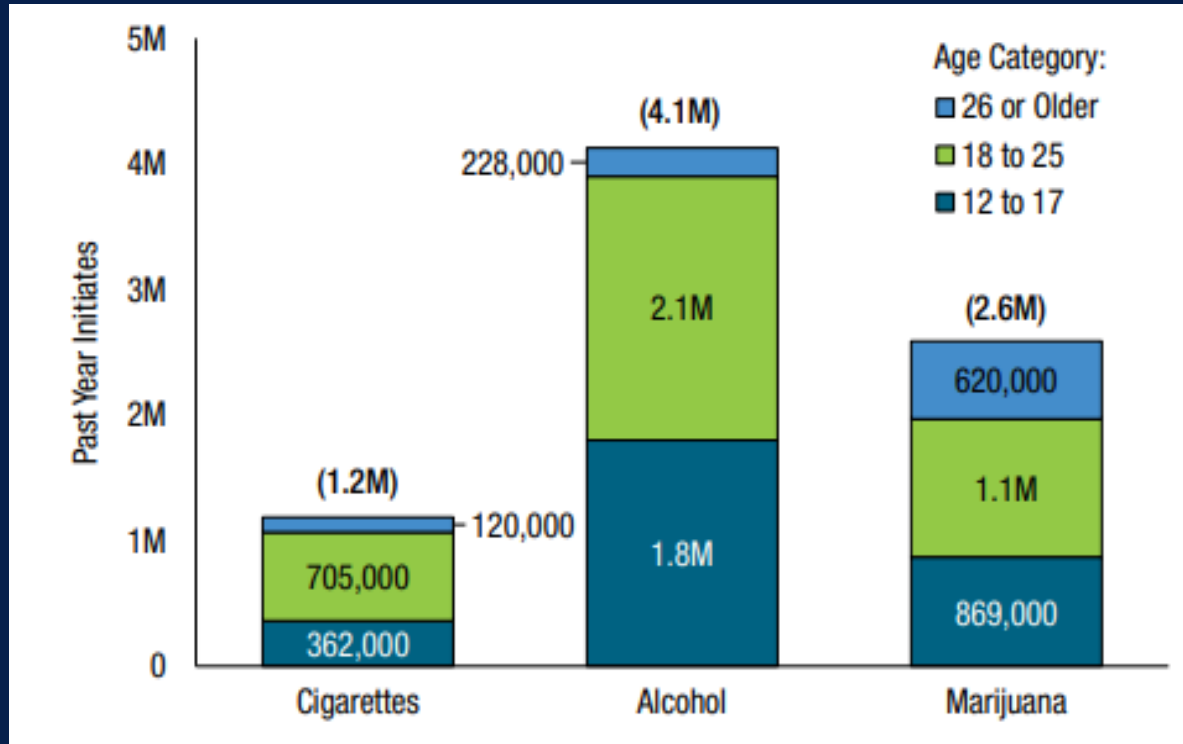
- Seeking Novelty
- Hyper active excitatory circuits
- Heightened Risk taking tendencies



Dahl RE. "Adolescent brain development: a period of vulnerabilities and opportunities". Keynote address. Ann N Y Acad Sci. 2004 Jun;
Arain M, "Maturation of the adolescent brain." Neuropsychiatr Dis Treat. 2013
Galvan A et al "Earlier development of the accumbens relative to orbitofrontal cortex might underlie risk-taking behavior in adolescents" J Neurosci. 2006 Jun

Adolescence vulnerability to SUD

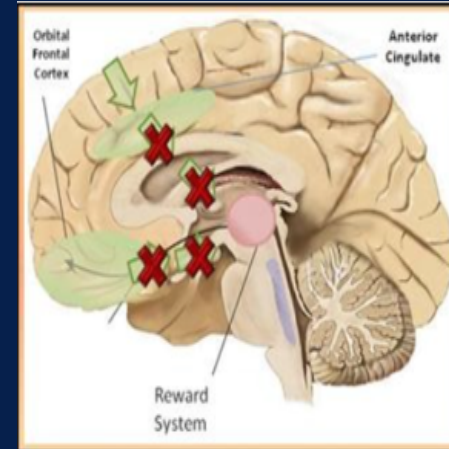
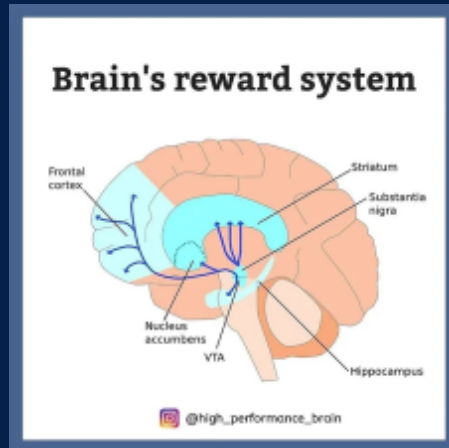
Higher Risk of Initiating Use



Risky Decision making in Adolescents

Factors increasing risk of Substance Use:

- Seeking Novelty
- Hyper active excitatory circuits
- Heightened Risk taking tendencies



Factors increasing risk of developing Use Disorder

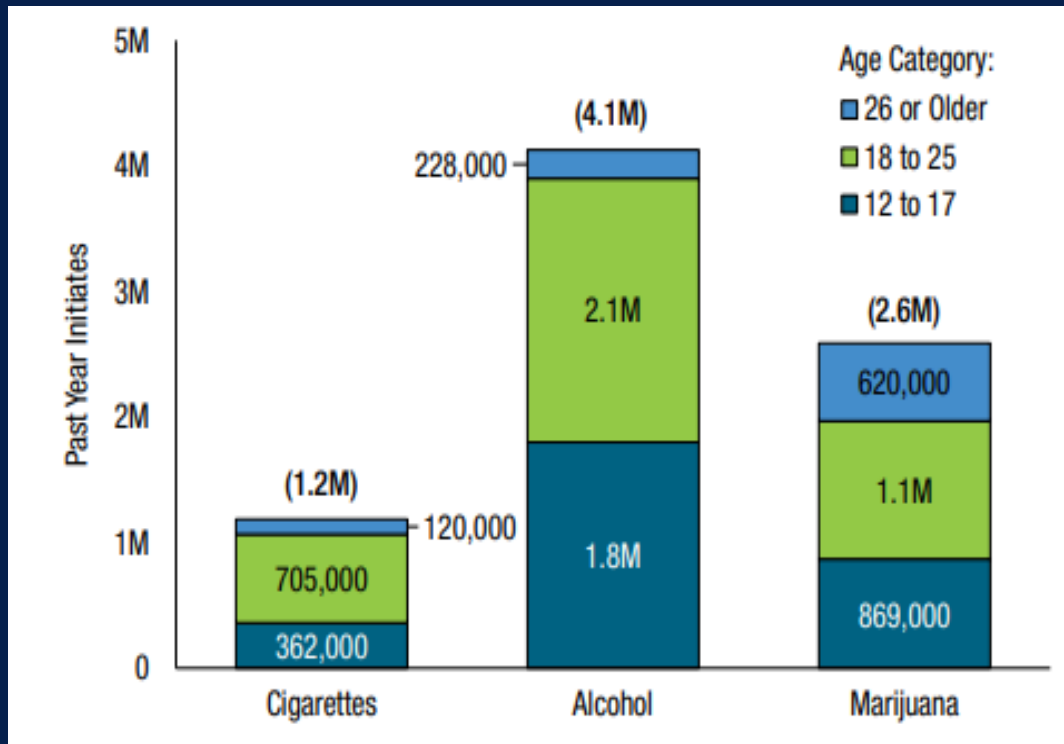
- Underdeveloped Frontal Cortex
- Immature GABA

=> Hypofrontality / Loss of Control

Shulman EP et al "The dual systems model: Review, reappraisal, and reaffirmation. Dev Cogn Neurosci. 2016 Feb
Silveri MM. "GABAergic contributions to alcohol responsivity during adolescence: insights from preclinical and clinical studies. Pharmacol Ther 2014 Aug;138:1-12"

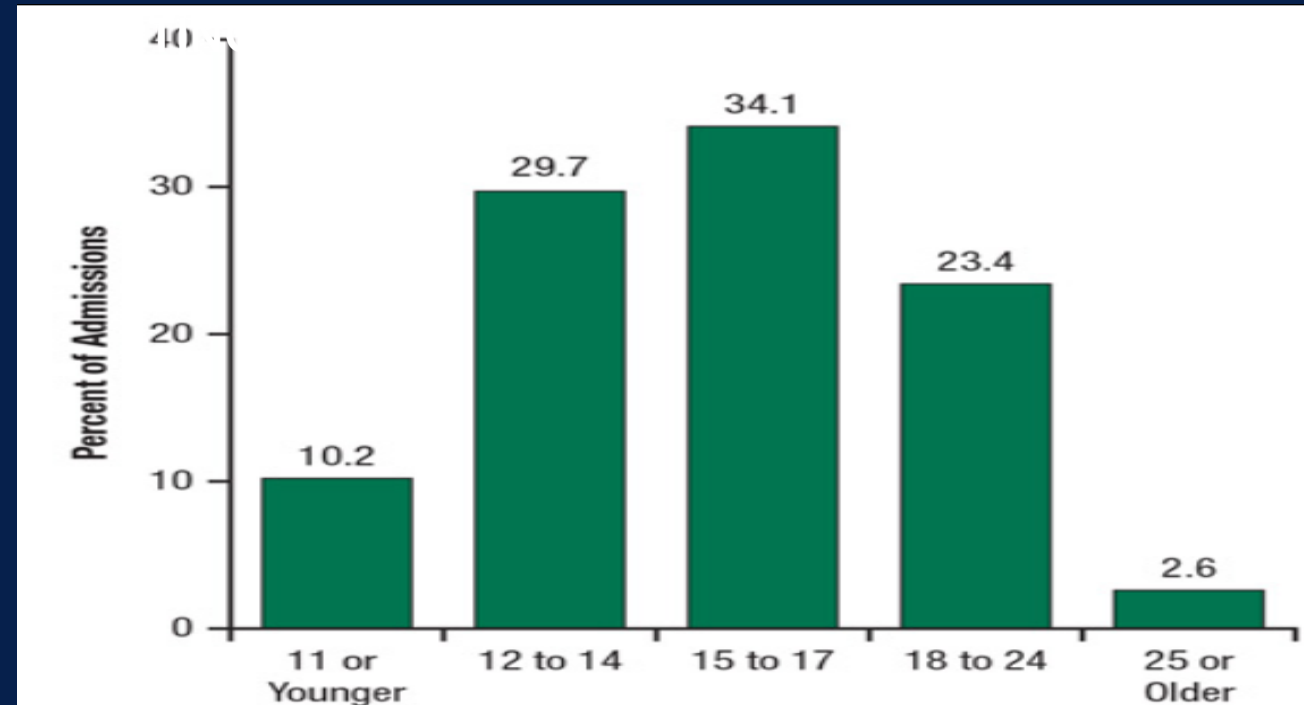
Adolescence vulnerability to SUD

Higher Risk of Initiating Use



Higher Risk of Developing SUD

AGE OF USE INITITIATION IN PEOPLE AGE 18-30

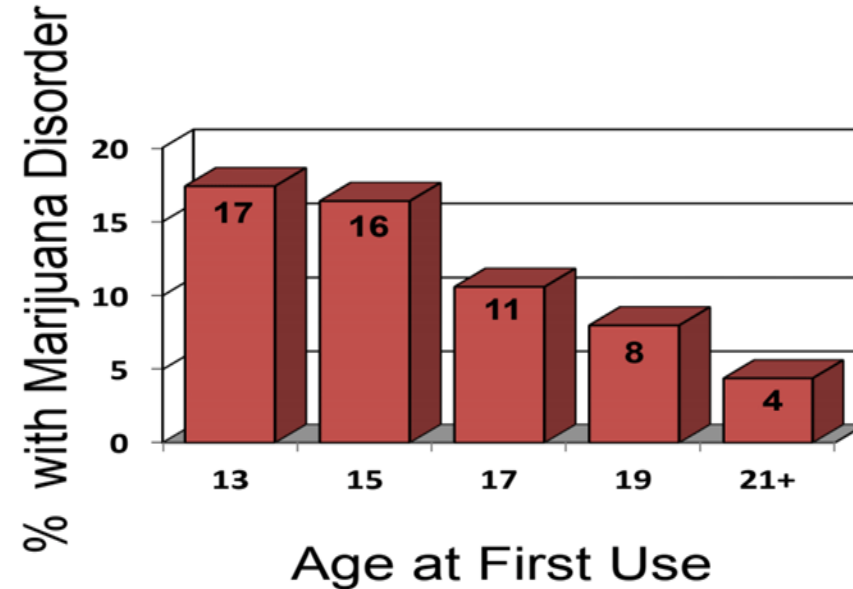
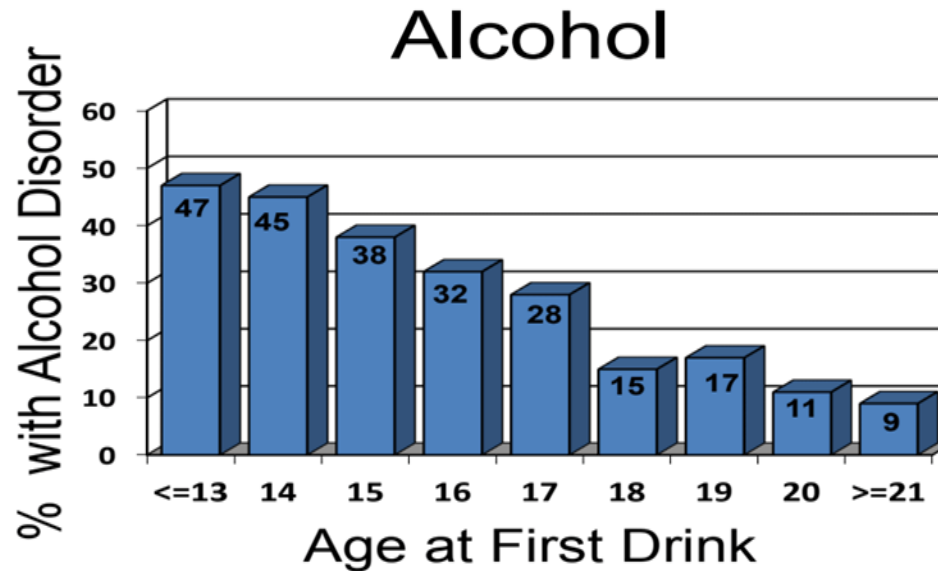


2021 National Survey of Drug Use and Health
Treatment Episode Data Set (TEDS) 2004 - 2014 National Admissions to Substance Abuse Treatment Services

Key Elements to understanding SUD in Adolescents

- 1- Adolescents' active brain development puts them at a high risk for Substance Use and Use disorders
- 2- Early screening, detection, and treatment are essential to improving long term outcomes

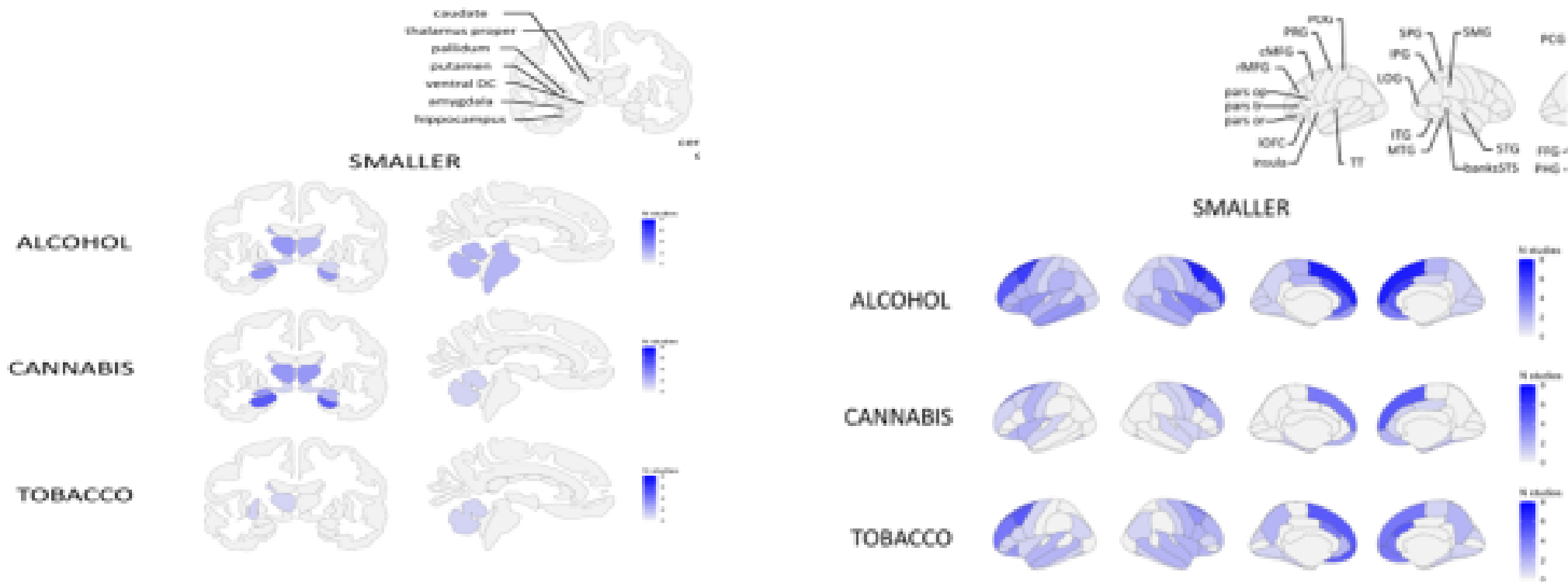
Age at first use and later risk



Source: Hingson RW, Heeren T, Winter MR. Age at drinking onset and alcohol dependence. Arch Pediatr Adolesc Med. 2006;160:739-746.

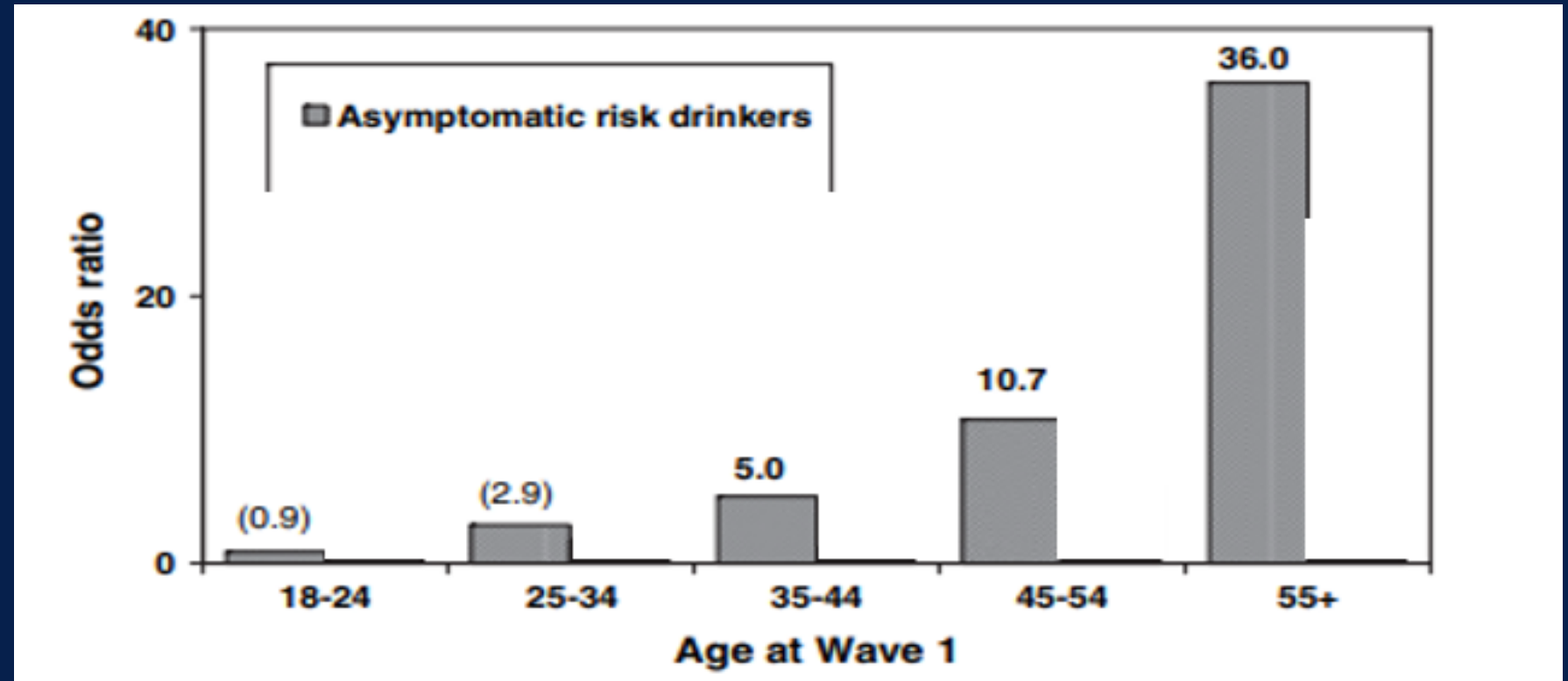


SUD in Adolescents leads to deficits in areas that moderate impulse control and decision making



Early initiation of SUD treatment correlated directly with recovery success

Odds of Alcohol Use Disorder (AUD) recurrence Three years after achieving recovery



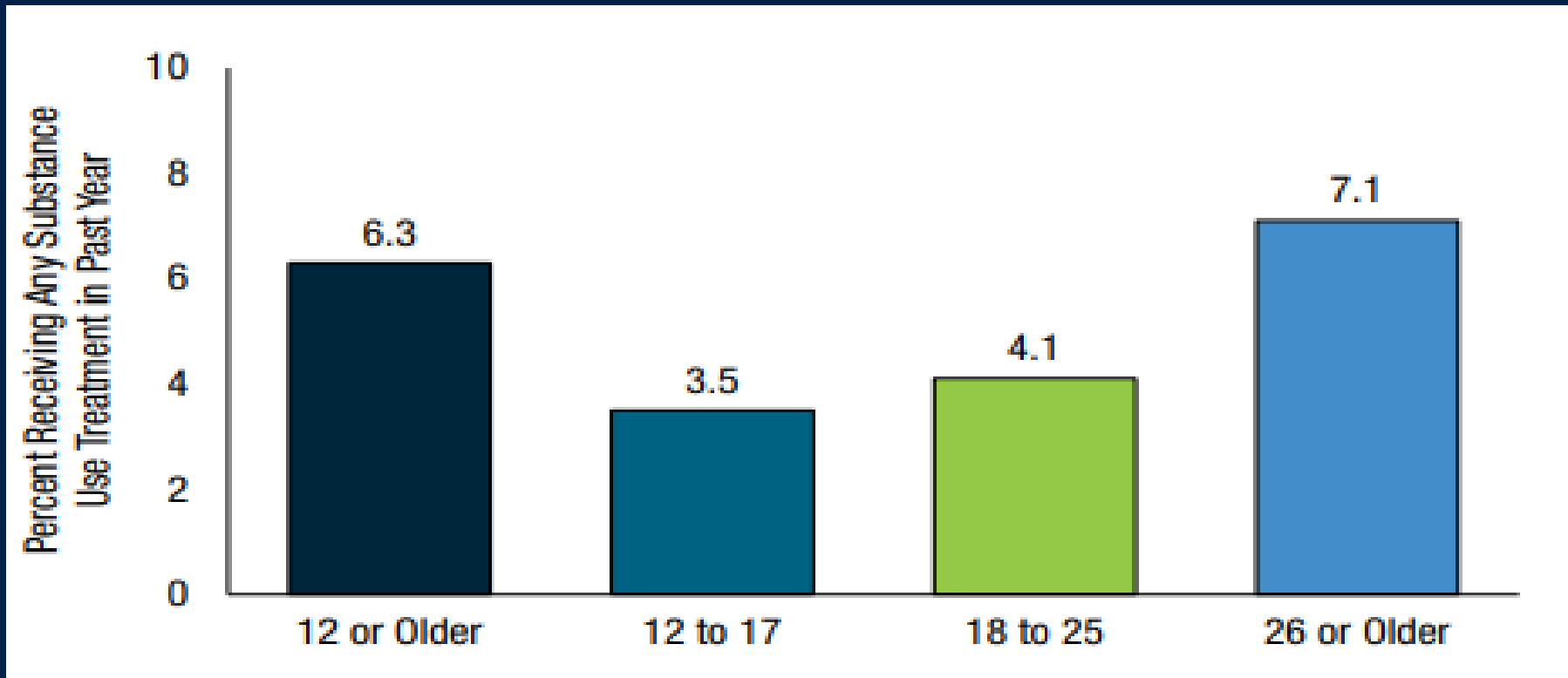
Age at the time of achieving full Recovery from AUD (Wave 1)

Highlights on SUD in Adolescents:

=> Substance Use that leads to SUD almost always starts Adolescence

=> Initiating treatment as early as possible during youth is associated with the best long term outcomes

And yet, very few kids with Substance Use or SUD get care:



Main Challenge to receiving early quality care in Youth: Not seeking help

=> 98 % of Youth 12-25 years of age with an SUD did not perceive a need for treatment (1)

=> Only 4.2% of adolescents with opioid dependence and 0.5% of those with abuse perceived a need for treatment (2)

=> 48% of College seniors met criteria for SUD, but only 3.6% perceived a need for help (3)

=> 40-60% of school age e- cigarette users, 26% of (e- cigarette+ THC), and 35% of Alcohol users, intended to quit. (4,5,6) but < 12% reached out for help

1- 2021 National Survey of Drug Use and Health

2- Wu LT, Treatment use and barriers among adolescents with prescription opioid use disorders. Addict Behav. 2011

3- Caldeira KM, et al "College students rarely seek help despite serious substance use problems. J Subst Abuse Treat. 2009

4-Smith TT et al "Intention to Quit Vaping Among United States Adolescents. JAMA Pediatr. 2021 Jan

Improving access and delivery of quality SUD care in youth:

1- Increased perception of need for treatment increased health-seeking behavior

⇒ 90% of College seniors who perceived a need for care and 60% who were “pressured” to seek care ended up receiving appropriate SUD help. (1)

=> Increased perceived need for treatment led to more utilization of care in 12-17 yo’s (2)

2- Adolescents are more likely to seek help from someone they perceive as experienced, non-judgmental, and who will “not share with their parents” (3)

1- Caldeira KM, et al “College students rarely seek help despite serious substance use problems. J Subst Abuse Treat. 2009

2-Haughwout SP et al “Treatment Utilization Among Adolescent Substance Users: Findings from the 2002 to 2013 National Survey on Drug Use and Health”. Alcohol Clin Exp Res. 2016 Aug;40

Improving SUD care for youth lies in the answer to two questions:

1- Where are the kids who might need help most likely to present?

2- Are these personnel aware and able to fulfill the role of identifying and initiating treatment for Youth with SUD?

Points of Care for Youth with Substance Use Disorders

1-School Counselors and Health Staff :

- ⇒ Youth spend most of their waking hours in schools or colleges
- ⇒ Intensive educational atmosphere allows for structured education SUD
- ⇒ Substance use screening and brief intervention (SBIRT) in schools was associated with less cannabis and e-cigarette use over study period (4)

However:

- ⇒ Most school counselors do not feel well trained in screening or counseling for substance abuse and SUD (1)
- ⇒ Schools tend to respond to Substance Use with punishment: zero-tolerance policies are very common (2)
- ⇒ Youth with substance use associate sharing with harsh disciplining that may result in

1-Baird, Katherine A., "Substance abuse and school counseling" (2011). Educational Specialist

2-Porter and Clemons 2013

3-Heitzeg 2009; Okonofua, Walton, and Eberhardt 2016; Wallace et al. 2008)

4- Levy S et al., " Association of Screening and Brief Intervention With Substance Use in Massachusetts Middle and High Schools". JAMA Netw Open. 2022 Aug

Points of Care for Youth with Substance Use Disorders

2- Primary Care Providers: very well positioned to identify and initiate treatment for youth with substance use and use disorders (4)

A. Screening:

=> primary care pediatricians agree it is their responsibility to identify substance use disorders (94%) and refer patients to treatment (97%). (1)

⇒74-85% of pediatric patients get screened for SUD by Primary Care Providers (2), (3)

However: The majority used “clinical cues” or non-validated screening tools (2), (3)



1-Hadland S et al: Perceptions, preparedness & practices treating adolescent opioid use in primary care. AAP 2023

2-Palmer A, et al “Barriers Faced by Physicians in Screening for Substance Use Disorders Among Adolescents. Psychiatr Serv. 2019 May 1

3-Kuhns, et al. A chart review of substance use screening and related documentation among adolescents in outpatient pediatric clinics: implications for practice. *Subst Abuse Treat Prev Policy* (2020)

4-Schizer, M., et al . (2019). Medical issues in adolescent substance use: Background and role of the primary care physician. In R. A. Zucker & S. A. Brown (Eds.), *The Oxford handbook of adolescent substance abuse* Oxford University Press

CLINICAL INSTINCTS UNDERESTIMATE SUBSTANCE USE PROBLEMS

Comparison of Provider Impressions with Diagnostic Interview

	Medical Provider Impressions	
	Sensitivity	Specificity
Any use	.63 (.58, .69 CI)	.81 (.76, .85 CI)
Any problem	.14 (.10, .20 CI)	1.0 (.99, 1.0 CI)
Any disorder	.10 (.04, .17 CI)	1.0 (.99, 1.0 CI)
Dependence	0.0	1.0

Wilson CR, Sherritt L, Gates E, Knight JR. Are clinical impressions of adolescent substance use accurate? Pediatrics. 2004;114:536-540



Points of Care for Youth with Substance Use Disorders

2- Primary Care Providers: very well positioned to identify and initiate treatment for youth with substance use and use disorders (4)

A. Screening:

=> Patients with (last year use) had a **10.38 OR** of receiving adequate screening and brief intervention by SBIRT trained pediatricians vs Usual Care

Sterling S et al : Implementation of Screening, Brief Intervention, and Referral to Treatment for Adolescents in Pediatric Primary Care: A Cluster Randomized Trial.
JAMA Pediatr. 2015

Points of Care for Youth with Substance Use Disorders

2- Primary Care Providers: very well positioned to identify and initiate treatment for youth with substance use and use disorders

B: Initiating Treatment for SUD

- ⇒ Very few pediatricians feel responsible for treating substance use disorders (20%)
- ⇒ Even less pediatricians feel comfortable prescribing medications for SUD treatment (12%) (1)

However:

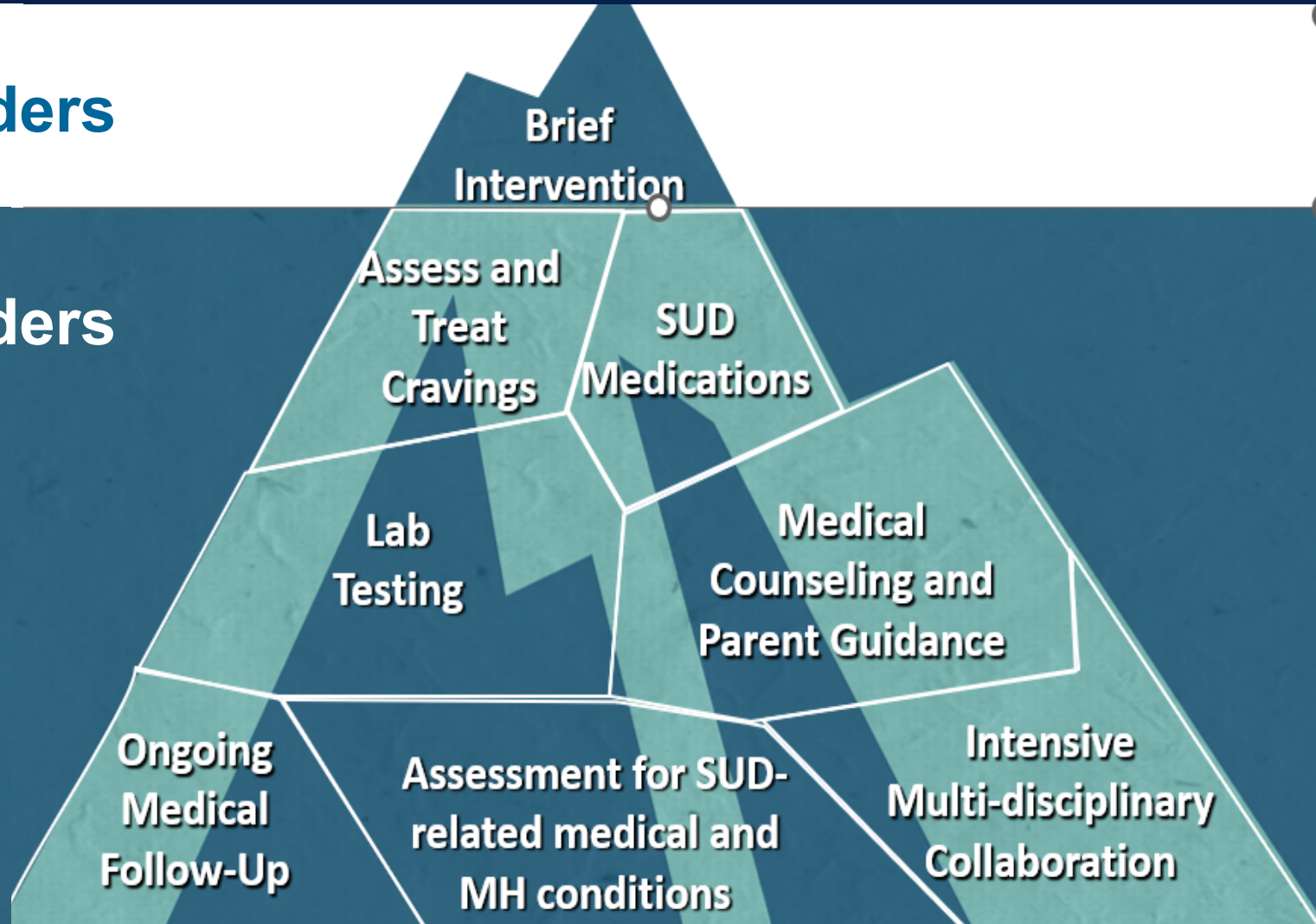
- ⇒ 80% of young patients who actively seek SUD care (tip of the iceberg) are categorized as having (mild to moderate) needs that can be adequately managed in an outpatient primary care



Youth Access to Quality SUD Care starts in the PCP's office

What Primary Care Providers usually do

What Primary Care Providers need to do



Primary Care Integration

