

Adolescent Substance Use Disorder (SUD) & Medication Assisted Treatment (MAT) 101

PRESENTED BY:

Helen DuPlessis, MD, MPH

March 7, 2024

WELCOME AND INTRODUCTION

INTRODUCTION



Helen DuPlessis, MD, MPH
Principal
Health Management Associates

ACRONYMS

ASAM	American Society of Addiction Medicine	NIDA	National Institute on Drug Abuse
AUD	Alcohol use disorder	NPG	National practice guidelines
BJA	Bureau of Justice Assistance	NTP, OTP	Narcotic treatment program OR opioid treatment program
COD	Co-occurring disorders	ODU	Opioid use disorder
FDA	Food and Drug Administration	PTSD	Post-traumatic stress disorder
MAT	Medication-assisted treatment OR medications for addiction treatment	SAMHSA	Substance Abuse and Mental Health Services Administration
MH	Mental health	SMI	Serious mental illness
MOUD	Medications for opioid use disorder	SUD	Substance use disorders

AGENDA

The Neurobiology of SUD: A Chronic Disease

About Youth and Opioids and Stimulants

MAT and Youth

Considerations for Pregnant Teens

Youth Relevant Harm Reduction

Minor Consent Laws and Other Special Considerations

Next Steps

LEARNING OBJECTIVES

At the end of the webinar, participants will be able to:

- Describe the basic neuroscience of addiction with particular emphasis on the role of dopamine.
- Explain why SUD is a chronic medical condition.
- Compare relevant differences in brain development and function in adults and adolescents and how that predisposes adolescents to use substances.
- List three medications that are FDA approved for the treatment of OUD.
- List at least two constraints adolescents face in accessing MAT.
- List three important considerations for MAT use among pregnant and parenting teens.
- Describe three ways to make harm reduction more accessible to adolescents.

OPIOID RELATED DEATHS AMONG YOUTH INCREASING AT A RATE MORE RAPID THAN ADULT DEATHS

Opioid-Related Overdose Deaths, 2018

	Total	Percent of Deaths	Rate per 100,000 population
10 to 14 yr old	1	0.0%	0.04
15 to 19 yr old	53	2.2%	2.08
20 to 24 yr old	176	7.2%	6.49
10 to 24 yr old	230	9.5%	
All ages	2428	100.0%	5.82

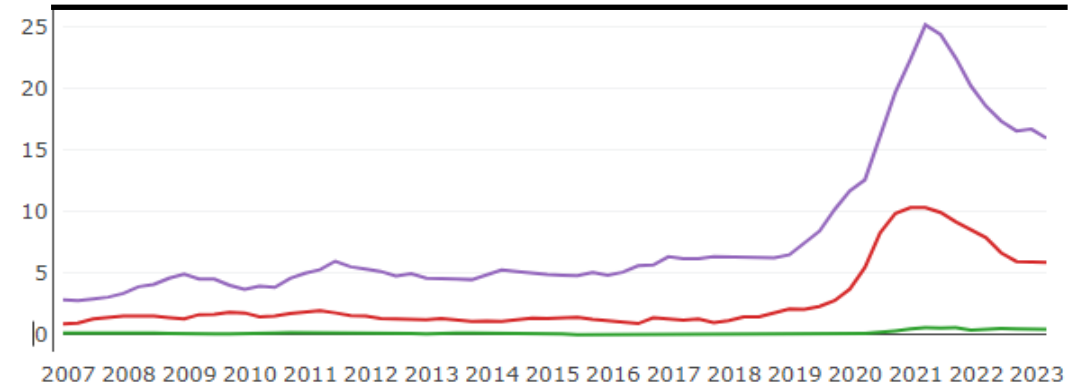
Source: California Department of Public Health - Injury and Violence Prevention using CDPH Center for Health Statistics and Informatics Vital Statistics - Multiple Cause of Death and California Comprehensive Death Files

Source: <https://skylab.cdph.ca.gov/ODdash/>

Opioid-Related Overdose Deaths, 2022 preliminary

	Total	Percent of Deaths	Rate per 100,000 population
10 to 14 yr old	12	0.16%	0.47
15 to 19 yr old	165	2.2%	5.90
20 to 24 yr old	489	6.6%	16.72
10 to 24 yr old	666		
All ages	7385	100.0%	18.66

Source: adapted from California Department of Public Health - Injury and Violence Prevention using CDPH Center for Health Statistics and Informatics Vital Statistics - Multiple Cause of Death and California Comprehensive Death Files



CHATTERFALL

Please respond to following prompt by typing into the chat box:

What is something you would like to know more about regarding the treatment of SUD in teens?

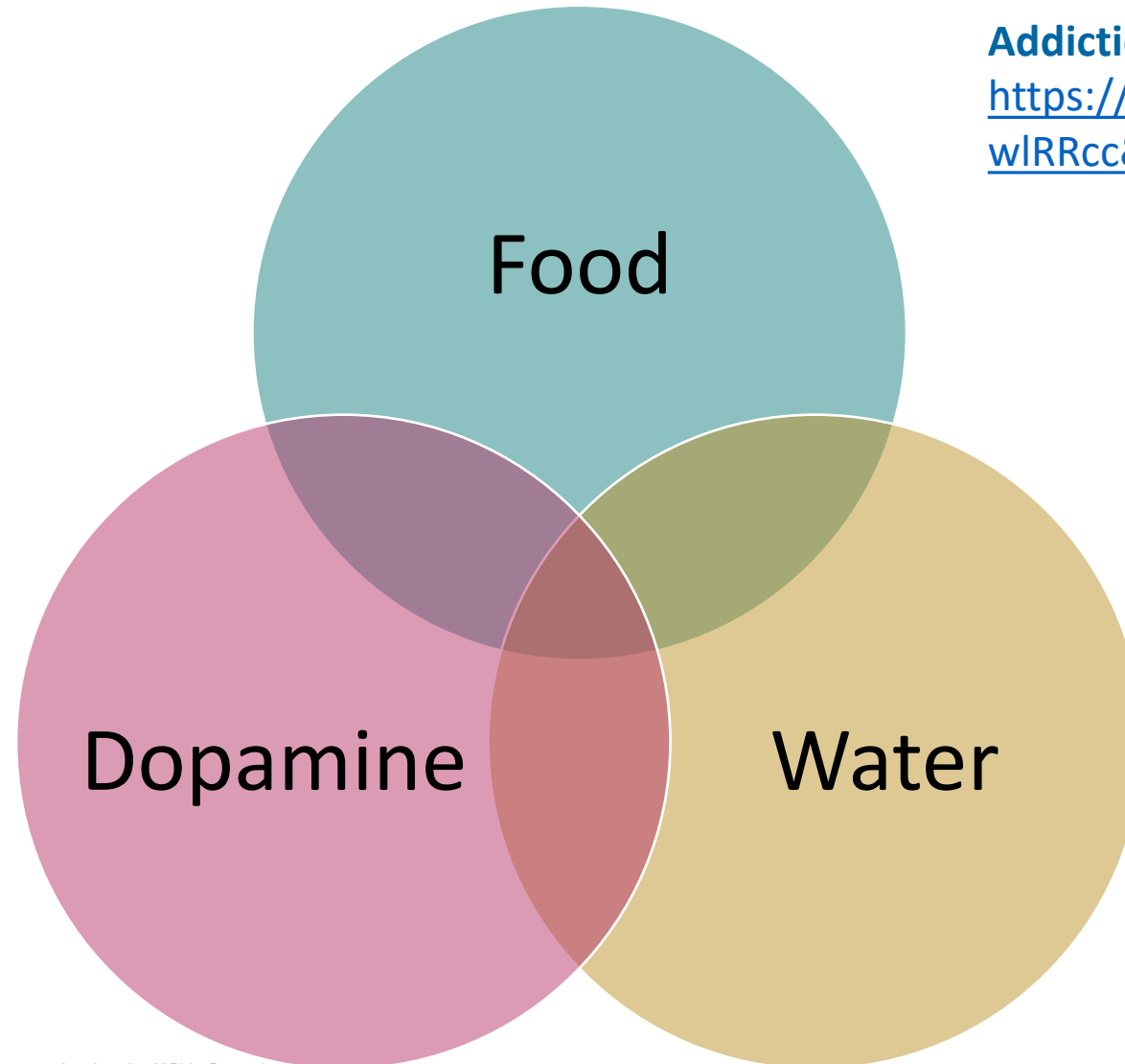
Type your response and
don't click enter.



NEUROBIOLOGY OF ADDICTION AND SUBSTANCE USE DISORDERS (SUD) AS A CHRONIC DISEASE

BASIC MECHANISM OF HOW SUD AFFECTS THE BRAIN

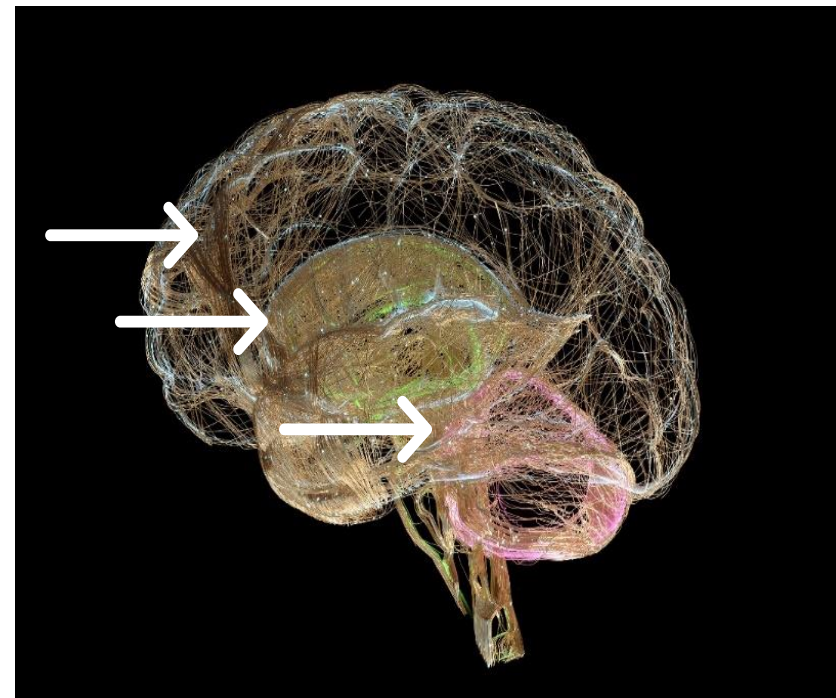
Addiction Neuroscience 101 Video:
<https://www.youtube.com/watch?v=bwZcPwIRcc&t=266s>



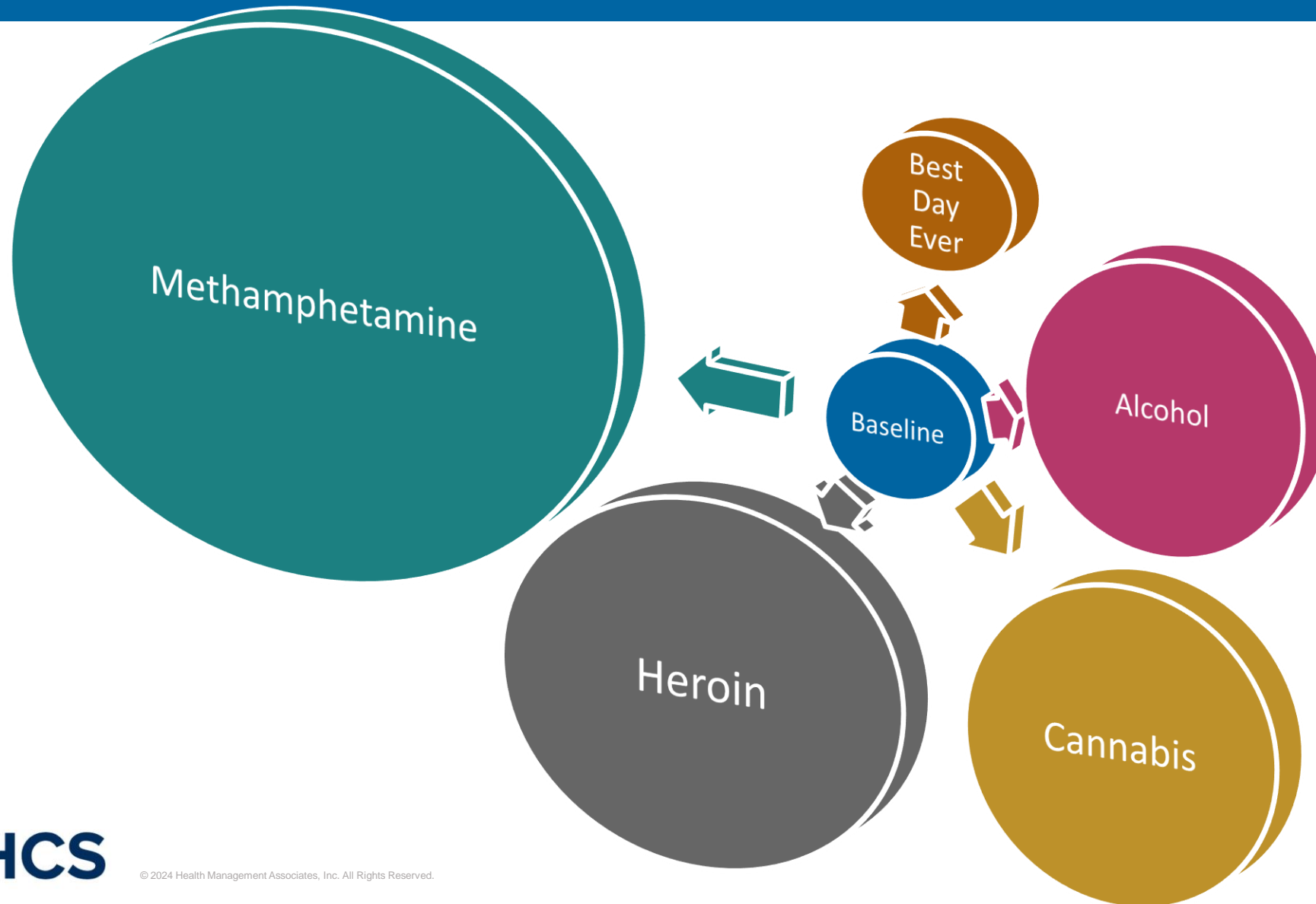
HOW SUBSTANCES OF ABUSE AFFECT THE BRAIN

- All substances of abuse result in activation of the reward pathway.
- The same pathway activated by naturally rewarding substances and events.

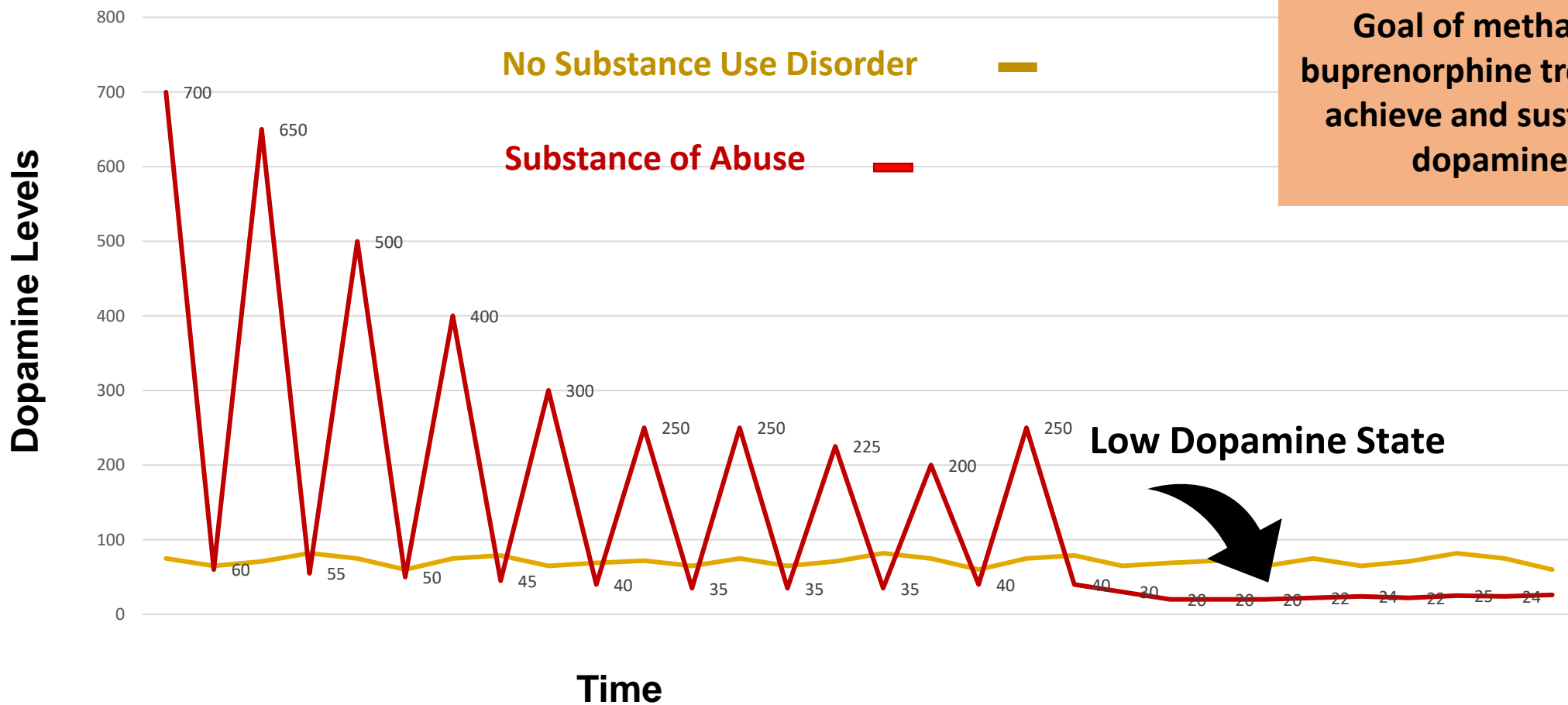
Frontal Lobe
Nucleus Accumbens
Ventral Tegmental Area



DOPAMINE RESPONSE



BRAIN CHANGES WITH EPISODES OF SUBSTANCE USE



Goal of methadone and buprenorphine treatment is to achieve and sustain normal dopamine level.

UNDERSTANDING ADDICTION TO INFORM TREATMENT

Lack of dopamine →
cravings

Aberrant behaviors
(symptoms) are an
expected outcome of
cravings

MAT safely increases
dopamine and
stabilizes craving

Allowing for behavioral
therapy and other
interventions to be
effective

ADOLESCENT DEVELOPMENT AND THE PREDILECTION FOR SUBSTANCE USE DISORDER

YOUTH AND THE OPIOID EPIDEMIC

“Substance use accounts for the vast majority of life-years lost due to disease, disability and premature death among those aged 15-24 and is arguably the most important modifiable health risk behavior impacting adolescents.”

Levy S. Youth and the Opioid Epidemic. *Pediatrics*. 2019

WHAT WE KNOW ABOUT TRENDS IN SUBSTANCE USE AMONG ADOLESCENTS

Individuals are most likely to begin using drugs during adolescence and young adulthood

- By the 12th grade, 70% of students have tried alcohol, half will have taken an illegal drug, 40% will have smoked a cigarette, AND 20% will have used a prescription drug for NONMEDICAL reasons (YRBS, 2019)

Fortunately, most adolescents who do experiment do NOT develop an addiction or other SUD

But, SUD among youth is part of other risky behaviors

SOURCE: Youth Risk Behavior Survey (YRBS) <https://www.cdc.gov/healthyyouth/data/yrbs/feature/index.htm>
American Academy of Pediatric Medical Home Project portal <https://www.aap.org/en/practice-management/medical-home>



RISK FACTORS



- Adverse Childhood Events (ACE) predispose to SUD:
 - 75% of those with OUD have history of ACEs (CTIPP, 2017).
 - Having >3 ACEs is associated with earlier onset use, greater prevalence IV drug use, greater overdose rate (Hughes et al, 2017).
 - Risk of SUD increases with number of ACEs (dose-response).
- 15.2% of people who start drinking by age 14 will eventually develop alcohol use disorder vs. 2.1 % of those WHO WAIT until they are 21 years or older (NIDA 2014).
- 25% of those who begin abusing Rx drugs at 13 years or YOUNGER develop a SUD some time in their lives (NSDUH, 2010).
- 13% of those with a SUD started using marijuana by the time they were 14 years. (SAMHSA TEDS Report, 2014; Gray and Squeglia, 2018).

WE CAN'T TREAT WHAT WE DON'T FIND: VALIDATED SCREENING TOOLS

- Screening tools are validated for use in specific populations including youth
- Screening for co-morbid conditions and suicide is also critical

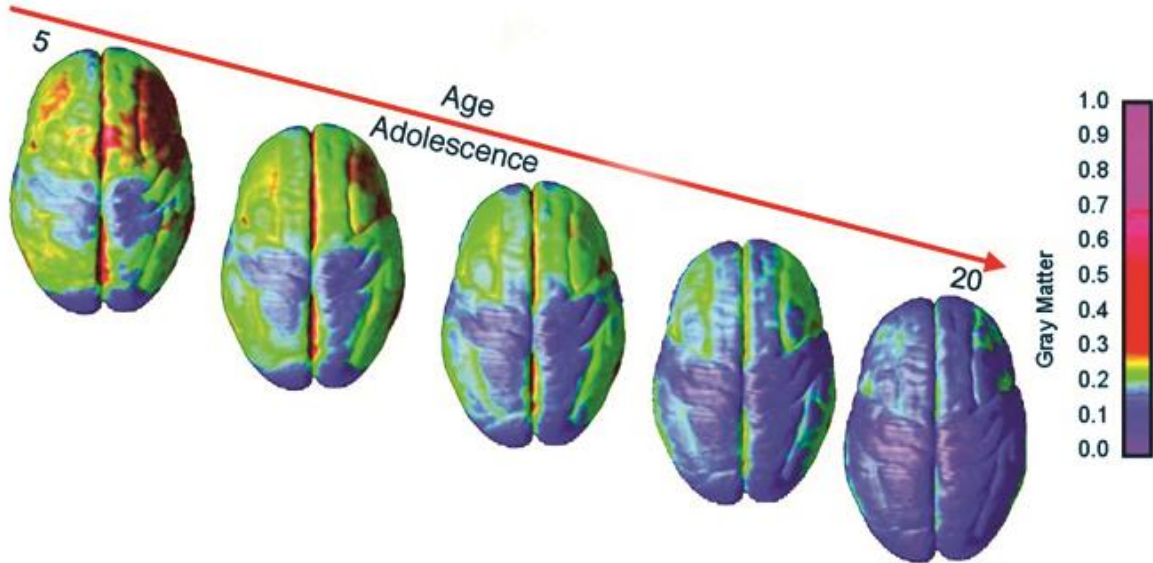
General Population	Pregnant Women	Youth
<ul style="list-style-type: none"> + National Institute for Drug Addiction (NIDA) – Quick Screen + Tobacco, Alcohol, Prescription, and other Substances (TAPS) + AUDIT (Alcohol only) + <i>Patient History Questionnaire (PHQ-9)</i> + <i>General Anxiety Disorder (GAD-7)</i> + <i>PTSD Checklist (PCL-5)</i> + <i>Columbia Suicide Severity Rating Scale (C-CCRS)</i> 	<ul style="list-style-type: none"> + NIDA – Quick Screen* + 4 P's plus (license fee) + Substance Use Risk Profile – Pregnancy (SURP) + CRAFFT – for 12 -26 yo women (Car, Relax, Alone, Forget, Friend/Family, Trouble) + <i>Perinatal Mood and Anxiety Disorder (PMAD) – Edinburgh, PHQ-9</i> 	<ul style="list-style-type: none"> + Brief Screener for Alcohol, Tobacco and other Drugs (BSTAD) (12-17yo) + Screening to Brief Intervention (S2BI) (12-17yo) + Problem oriented screening instrument for Teens (POSIT) + CRAFFT* + <i>PHQ-9-adapted, Center for Epidemiologic Studies Depression Scale (CESDS)</i>

DEFINITIONS & LEVEL SETTING

DEFINITIONS AND LEVEL-SETTING: THERE ARE MEANINGFUL DIFFERENCE IN THE POPULATIONS

	Ages in years	General Developmental Considerations	Practical and Legal Considerations
Adolescence	12 thru 17 years:	Moving to independence Future Interests - Cognitive development Ethics and Self-direction	Sexuality Physical Changes
• Early adolescence	10* thru 13	<ul style="list-style-type: none"> Physical changes – worries about being normal Mood swings Limit testing Sense of invulnerability Close relationships gain importance (searching outside of family) 	<ul style="list-style-type: none"> Familial Context <ul style="list-style-type: none"> Financial dependent Health coverage dependent Emotional evolution Must be enrolled in school Minor Consent laws in some states (unable to consent for treatment with MAT) <i>Emancipation is the exception not the rule</i>
• Mid-Adolescence	15 thru 16	<ul style="list-style-type: none"> Strong peer attachment Concerns about appearance and sexual appeal Interest in ideals, role models, moral reasoning Asserting independence → deeper conflicts Risk-taking 	
• Late Adolescence	17 thru 18	<ul style="list-style-type: none"> Mainly independent decision-making Ability to delay gratification Defining realistic adult role in society and family Capable of insight, self-regulation of self-esteem Realization of vulnerability and limitations 	
Emerging Adults	18 thru 25	Do I have a role and place in this world?	Legal age for most decision-making

ADOLESCENT BRAIN DEVELOPMENT: ALL GAS AND NO BRAKES



- Mid-brain areas are highly active during adolescence:
 - Reward, motivation, moods/emotions, addiction.
 - Dopamine-mediated (largely).
- Pre-frontal cortex develops much later (20s-30s).
- Brain in transition is “pruning” to develop greater efficiency and specificity (resilience).
- Pubertal hormones are implicated in development of areas of the brain that drive risk-taking.

Copyright (2004) National Academy of Sciences, USA Gogtay et al (2004). P Nat Acad Sci. 101(21):8174-8179

MORE ON THE ADOLESCENT BRAIN: SO, WHAT DOES THAT MEAN?

Adolescents are more likely to:

- Act on impulse.
- Misread or misinterpret social cues.
- Get into accidents.
- Engage in risky behaviors (binging).

Adolescents are less likely to:

- Think before they act.
- Pause to consider consequences.
- Change their dangerous or inappropriate behaviors.
- Realize that their rapid performance is impaired.
- Perceive risk.



SOURCE: KQED.org

PROMISING LONGITUDINAL RESEARCH ON THE ADOLESCENT BRAIN



Adolescent Brain Cognitive Development

Teen Brains. Today's Science. Brighter Future.

- The Adolescent Brain Cognitive development (ABCD) study Collaborative Research on Addiction at NIH (CRAN) - Longitudinal study of 10,000 youth from 10 -38 years across 21 sites (began in 2015).
 - Maternal tobacco use during pregnancy associated with lower reading scores and picture sequence memory in 9-12 yo.
 - Adolescent cannabis use associated with significantly lower performance on memory tests and marginal deficits in receptive language.
- National Consortium on Alcohol and Neurodevelopment in Adolescence (NCANDA)- following over 800 youth across 5 sites for 10 years.

OTHER CONSIDERATIONS: HARM REDUCTION IN ADOLESCENTS

OBSTACLES TO EFFECTIVE HARM REDUCTION FOR YOUNG ADULT USERS

Stigma and Denial

Fear of law enforcement

Lack of youth-friendly services

Disconnection from networks traditionally reached by harm reduction services

Lack of knowledge about safer injecting practices, harm reduction and HIV programs in their communities

KEY STRATEGIES FOR EFFECTIVE HARM REDUCTION FOR YOUNG ADULTS

Must be contextually relevant and responsive:

- Distribution of harm reduction materials and education using social networks and digital media.
- Venue-based interventions (distribution of harm reduction materials in clubs, bars, music events in which youth prescription opioid use may occur) should be considered.
- Peer-based naloxone training and distribution, and drug user-led programs to provide safer injection education are two examples of effective drug user “intravention.”
- Can the US embrace “differentiated normalization?”



This Photo by Unknown Author is licensed under [CC BY-NC-ND](https://creativecommons.org/licenses/by-nc-nd/4.0/)



WHAT DOES THIS MEAN?

Go Slow

If you use drugs, take action to prevent overdose. When you take a drug, start with a very small amount to test the strength. Don't slam it. You can always take more, but you can never take less. If you inject drugs, inject a little bit first and wait 20 seconds to see how strong it is. If it feels off, consider not using it or using less than planned. Be sure someone with you has naloxone.

If you use heroin, pills or even other drugs in Maryland, there's a good chance you're using fentanyl. Fentanyl has caused a huge spike in overdose deaths. Fentanyl acts FAST. Be careful.

<https://www.goslow.org/>

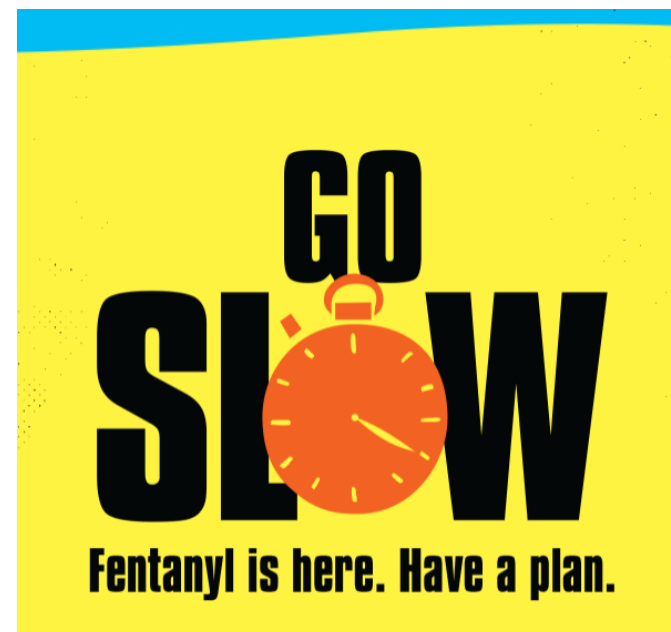
HARM REDUCTION TIPS

Don't become a statistic.

Take action to protect yourself from overdose.



- 1. CARRY NALOXONE.**
Naloxone is available at all pharmacies in Maryland.
- 2. GO SLOW.**
Start with a very small amount to test the strength.
- 3. NEVER USE ALONE.**
Use with someone and **take turns** in case one of you needs naloxone.



GO SLOW

Fentanyl is here. Have a plan.

NALOXONE OVERVIEW: HARM REDUCTION

Mu opioid antagonist used for opioid overdose (OD) reversal

Shorter half-life & more rapid onset of action than naltrexone

High affinity, competitive binding & displaces full agonists

Intranasal or intramuscular by bystander

Opioids have longer half-life than naloxone

May require more than one dose

Parental consent required (considered psychotropic medication)

CA Assembly Bill 2760- Naloxone prescribing

- >90mg Morphine Milliequivalents
- Opioids + benzodiazepines
- Increased risk of OD: History of OD or SUD
- Minor consent challenges

CAN WE PROVIDE NALOXONE DIRECTLY TO MINORS?

Naloxone and other opioid antagonists can be prescribed and dispensed to minors directly or via standing order with the consent of the minor's parent or guardian. It is unclear whether the prescription and dispensing of opioid antagonists to minors is generally permissible without such consent... In all cases, no civil, criminal, or professional liability attaches to a health care practitioner who provides or dispenses naloxone to a person who meets the criteria in the law to receive it. *-Network for Public Health Law, 2022*

In Support – CA Allows...

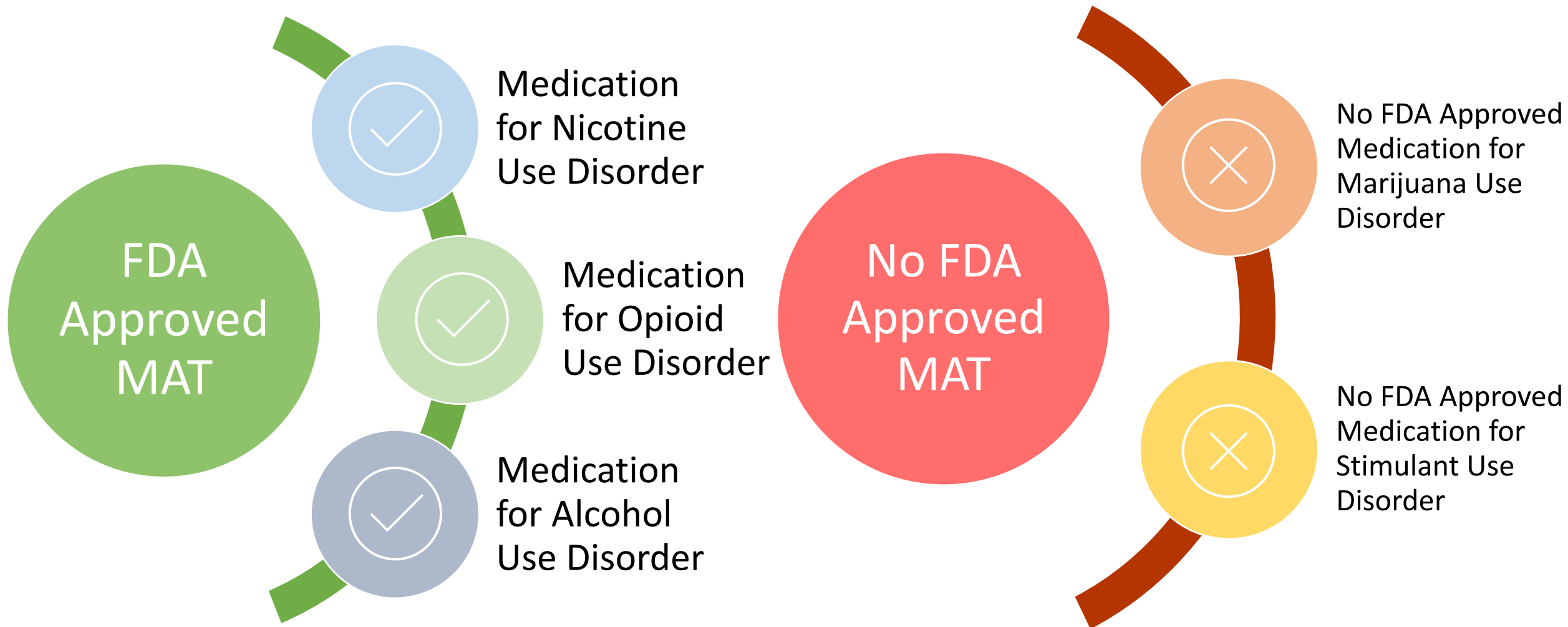
- Prescribing/dispensing to third parties
- Standing order protocols
- No general limitations of prescribing to minors
- K-12 Schools and Universities eligible for Naloxone Distribution Project

Giving Pause

- Broad definition of psychotropic medications
- General disposition toward parental rights

MAT TREATMENT & YOUTH

FDA-APPROVED MEDICATIONS FOR SUD



MAT AND ADOLESCENTS

Treatment of adolescents with OUD with MAT is recommended by:

- American Society of Addiction Medicine
- American Academy of Pediatrics
- Society for Adolescent Health and Medicine
 - *“All adolescents and young adults (AYAs) with opioid use disorder (OUD) should be offered medication for OUD as a critical component of an integrated treatment approach that includes pharmacologic and nonpharmacologic strategies.”*

WHY IS MAT FOR OUD IMPORTANT?

Treat Withdrawal: Prevent Overdose

Symptoms include
Muscle pain, dilated
pupils, nausea,
diarrhea, abdominal
cramping,
piloerection

- Lasts 3-7 days
- Using methadone or buprenorphine is recommended over abrupt cessation due to risk of relapse, overdose (OD) & death

Address Dopamine Depletion

Reward/motivation
pathway

- Depletion persists for months-years after people stop using
- Treated with methadone or buprenorphine

Treat OUD

Abstinence based
treatment results
in 85% relapse
within 1 year vs.
40-60% on MAT

Achieve Results

Increases
retention in
treatment

Decreases

- opioid use
- cravings
- overdose
- complications IVDU and other risky behaviors
- criminal behavior

Sources:

Mattick, RP & Hall W (1996) Lancet 347: 8994, 97-100.
Lobmaier, P et al. (2008) Cochrane Systematic Review.
Kakko et al. (2003) Lancet 361(9358),662-8.
ASAM, (2020) National Practice Guidelines for the Treatment of OUD.

Mattick, RP, et al. (2009) Cochrane Systematic Review.
Krupitsky et al. (2011) Lancet 377, 1506-13.
Rich, JD, et al. (2015) Lancet

FDA-APPROVED MOUD

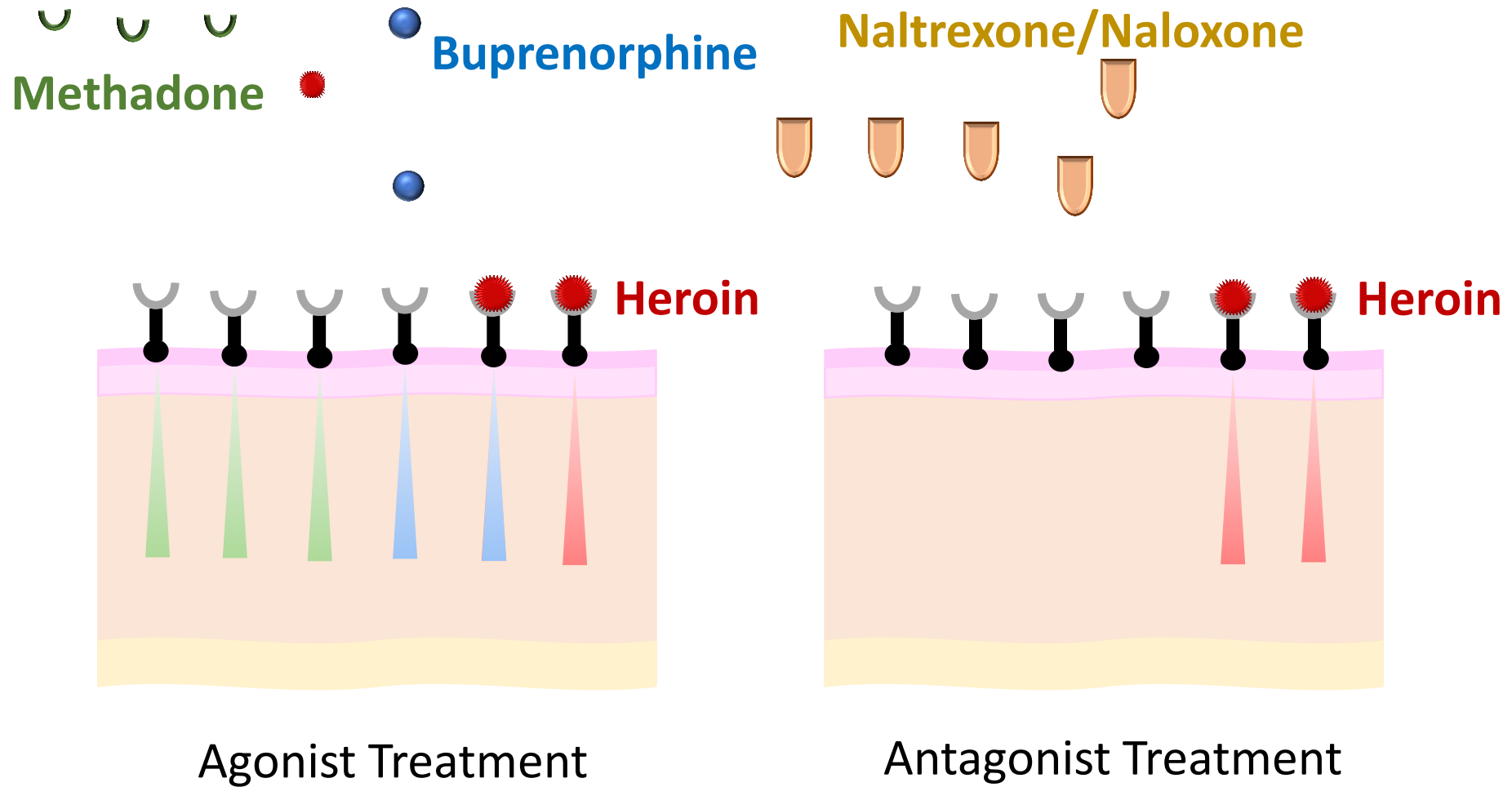
Agonist Treatment:

- Methadone- approved for cough in 1940s, for OUD 1972
- Buprenorphine-approved in 1981 for pain; oral approved for OUD 2002, patch, implants & injection later

Antagonist Treatment:

- Naltrexone- oral approved 1984; injectable 2006 AUD, 2010 OUD

HOW DO THESE MEDICATIONS WORK?



Agonist Treatment

Antagonist Treatment

Agonist turns on the receptor
Antagonist blocks receptor from turning on

METHADONE: GENERAL FEDERAL REGULATIONS



Highly monitored
in a Narcotics or
Opioid Treatment
Program setting
(NTP/OTP)

States are now
allowed flexibility (in
OTPs) with take
home and telehealth
initiation of
treatment*



*CA adopted flexibilities allowed
in 42 CFR Part 8 Final Rule
<https://www.samhsa.gov/medications-substance-use-disorders/statutes-regulations-guidelines/42-cfr-part-8>



Delivered initially
via observed
dosing

Many
requirements for
treating patients
with some recent
shifts**



**Use in minors no longer
requires “two documented
unsuccessful attempts at short
term detoxification or drug
free treatment” (42 CFR part 8)
and minors ≥ 16 years can
consent for narcotic
replacement therapy (CA family
code)

METHADONE: WHAT AND FOR WHOM?

- Mu opioid agonist without a “ceiling effect”
- Reaching a therapeutic dose (60-120mg) takes time
 - <60 mg/d is not therapeutic
 - Increased frequency and daily dose required during pregnancy
- Several significant drug-drug interactions
- Illegal to write prescription for methadone to treat OUD unless:
 - Narcotic Treatment Program (NTP)
 - Hospital
 - Covering a gap of <3 days



Patients with a more severe OUD

Patients who would benefit from the services available in an OTP environment

Patients who were not reached treatment goals with other MOUD

BUPRENORPHINE: GENERAL REGULATIONS

Buprenorphine Prescribing and Consenting

- **DEA X-Waiver** no longer required for buprenorphine prescriptions; no cap on number of people treated with buprenorphine
- Youth ≥ 16 years **can consent** to buprenorphine for OUD
- Multiple formulations (tablets, film, long-acting injectable)



BUPRENORPHINE: WHAT AND FOR WHOM?

- Partial Mu opioid agonist with ceiling effect:
 - Available alone or in combination with naloxone.
 - Combination formulation averts diversion.
 - Different formulations (sublingual and buccal pill/film, injectable).
 - Greater binding affinity than most full agonists.
 - Start buprenorphine when client in moderate withdrawal (to avoid causing precipitated withdrawal).
 - Many ways to do initiation (protocols needed):
 - Typical dose is 16-24 mg/d.
 - Dosing adjustments required during pregnancy.
- Fewer drug-drug interactions than methadone.
- Use in minors ≥ 16 yo NO LONGER requires parental/guardian consent (all settings) and two prior detox attempts.

Opioid use
disorder or
withdrawal

Patient wants
agonist treatment

NALTREXONE: GENERAL REGULATIONS



No Federal regulations inhibit the use

Not all BH clinics have RN to give injections



Multiple formulations:

- Pills at 25mg and 50 mg (50-100 mg for AUD)
- Long acting injectable (380mg)
- Long acting range (4 weeks)

NALTREXONE: WHAT AND FOR WHOM?

- Mu opioid antagonist with high, competitive binding affinity.
- Does NOT treat withdrawal or underlying dopamine depletion.
- Client must be opioid free 5-7 days before starting.
- More readily accepted in criminal justice and “abstinence-only” communities.
- Evidence of decreased mortality is limited.*
- **Minors ≥ 16 yo can now consent for naltrexone (in NTPs)**

*Source: Larochelle, et al. Medication for opioid use disorder after nonfatal opioid overdose and association with mortality. A cohort study. *Annals of Internal Medicine*. 169:3 (2018) 137-45.



Patients with a high degree of motivation (dopamine)

Patients who did not reach treatment goals with methadone or buprenorphine

Can be useful as “back-up” after discontinuation of methadone or buprenorphine

WHAT WE KNOW ABOUT ACCESS TO MAT IN ADOLESCENTS

- Few published longitudinal studies about MAT for adolescents (pre-2018 data): Treatment outcomes are not as good as for adults, BUT:
 - Most viewed MAT as detoxification or short-term treatment.
 - Often used subtherapeutic doses (<8 mg).
- The most current National Survey on Drug Use and Health indicates that only 8.3% of the ~1,000,000 youth 12-17 years who needed treatment for AUD or SUD actually received it.
 - Less than 2.4% of adolescents and emerging adults (vs. 26.3% of adults) in treatment for heroin use and 4% of those in treatment for prescription drug use (vs. 12% of adults) received MAT.
 - Black and Hispanic youth are less likely to receive treatment than white youth.
- Retrospective cohort study (2001 – 2014) revealed about 26% of those diagnosed with OUD received MAT (the use of MAT increased 10-fold from 2002 to 2009, then dropped from 2009-2014 despite rise in diagnoses of OUD).
 - Females, Black and Hispanic patients and those <16 years were less likely to receive MAT.
- Anecdotal evidence that MAT abuse potential is higher in adolescents.
- There are significant logistical issues: parental consent for methadone, transportation, inadequate access .

WHAT WE KNOW ABOUT EFFECTIVENESS OF MAT AND OTHER SUD TREATMENT IN ADOLESCENCE

- Need to acknowledge differences in youth and adults
 - Different neurodevelopmental concerns (puberty, cognitive skills, sense of self, social landscape)
 - Different addiction trajectory (more polysubstance, substitution and binging than adults) → need to consider different treatment outcomes
- Studies have likely not been reporting outcomes across all substance types
- American Academy of Pediatrics released a policy statement in 2016 calling for the accessibility and use of pharmacotherapy for the youth with OUD



American Academy of Pediatrics Committee on Substance Use and Prevention. Medication-assisted treatment of adolescents with opioid use disorders. *Pediatrics*. 2016;138(3):e20161893

[Article can be accessed here](#)

- Engagement in treatment significantly higher with MAT
- Median retention in care among youths who received timely MAT is much greater than for those receiving only behavioral health
 - Buprenorphine 123 days
 - Methadone 324 days
 - Naltrexone 150 days
 - Behavioral health only 64 days

ADOLESCENTS AND MAT: “EVIDENCE” AND CONSIDERATIONS

MEDICATION	LEVEL OF EVIDENCE (mostly for adults)	CONSIDERATIONS
Methadone	High	<ul style="list-style-type: none"> • FDA approved for use in ≥18 yo; Minors ≥ 16 yo can now consent (in NTPs) • Same heavy regulations/requirements • Overdose potential exists in teens as in adults (mixing with other sedatives)
Buprenorphine	High	<ul style="list-style-type: none"> • Approved for use in ≥ 16 years and able to consent in CA (in any setting) • Can be prescribed in primary care office • No evidence for limiting duration of treatment • Proven safety • Adjunct psycho-social treatment is encouraged
XR-Naltrexone	Moderate-high	<ul style="list-style-type: none"> • Use in pediatric patients with Autism and Crohn’s disease with good safety profile • Extended release is well-tolerated and increased adherence

MORE...

- Behavioral Health treatment is a vital adjunct.
- Motivational Interviewing or Enhancement approaches should be used.
 - MI/MET are brief evidence-based (meaning well researched), treatments used to draw out change talk and strengthen one's motivation for change.
 - Motivational Enhancement Therapy (MET) consists of an initial assessment battery session, followed by two to four individual treatment sessions with a therapist using MI principles and techniques.
- Five Principles of Motivational Interviewing:
 - Express empathy through reflective listening.
 - Develop discrepancy between clients' goals or values and their current behavior.
 - Avoid argument and direct confrontation.
 - Adjust to client resistance rather than opposing it directly.
 - Support self-efficacy and optimism.
- Family Engagement Framework-ALL involved with an adolescent with SUD need a recipe to proceed.

PERINATAL SUD, MAT AND OTHER CONSIDERATIONS

In this presentation, the terms mother, maternal, she or her may be used in reference to the birthing person. Although there are few teen births to non-CIS gender youth, we recognize that not all birthing people identify as mothers or women and believe all birthing people are equally deserving of care that helps them attain their full potential and live authentic, healthy lives.

ABOUT PREGNANT TEENS AND SUD

- The teen pregnancy rate in the United States continues to decline (from 1988-2018), but the overall rate (17.4/1000 youth 15-19 yo) is significantly above other developed countries.
- Teens who become pregnant report more substance use prior to the pregnancy than non-pregnant teens.
- Pregnant teens in SUD treatment have higher rates of methamphetamine use (16.9% vs 8.4%) and marijuana use (72.9% vs. 70.2%) and less alcohol use (45.7% vs. 58.5%) than non-pregnant teens.
- Pregnant women, including teens, are less likely to use opioids for pain control during pregnancy than non-pregnant women, but the reported rate (31.89%) underscores the need for screening in the population.



MAT DURING PREGNANCY

- Detoxification during pregnancy results in higher risk of relapse (59-90%), overdose, death.
- Methadone and buprenorphine are the standard of care.
 - Safe for use during pregnancy.
 - MAT tapering during pregnancy or immediate post-partum period is contraindicated.
 - Doses may need to be adjusted upward during pregnancy.
- MAT should not be considered replacement therapy.
 - For persons with OUD, it treats the dysregulation that defines OUD as a chronic disease.
 - Pain management in the peripartum period for women with OUD or on MAT should be coordinated with the medical team.

MAT	OD Deaths	Retention in Treatment	Pregnancy Outcomes	NAS
Detox/ Withdrawal	Red	Red	Red	Green
Methadone	Green	Green	Green	Yellow
Buprenorphine (Mono)	Green	Green	Green	Yellow
Buprenorphine /Naloxone	Green	Green	Yellow	Yellow
Naltrexone	Yellow	Yellow	Yellow	Green

WHAT ABOUT BREASTFEEDING, SUD AND MAT?

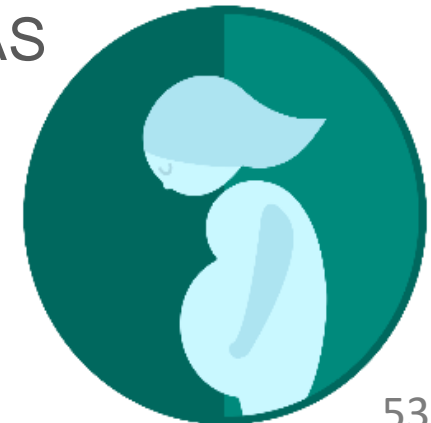
BENEFITS OF BREASTFEEDING: MOM'S SECOND GREATEST GIFT

GENERAL BENEFITS

- Reduced respiratory infections and otitis media
- Reduced gastrointestinal infections
- Lowered risk of sudden infant death syndrome
- Protection against allergic disease
- Reduced risk of Celiac disease, inflammatory bowel disease
- Lower incidence of obesity, diabetes (types 1 and 2)
- Better neurodevelopmental outcomes

BENEFITS TO WOMEN AND IN PERINATAL SUD

- Reduced risk of breast and ovarian cancer
- Improved maternal-infant bonding
- Reduced risk of child abuse
- Breastfed infants less likely to require pharmacological intervention for NAS
- Reduced symptoms of NAS
- Shorter length of stay for NAS
- Shorter duration of pharmacologic treatment when needed for NAS



FACTORS RELEVANT TO BREASTFEEDING DECISIONS: SHARED MEDICAL DECISION-MAKING

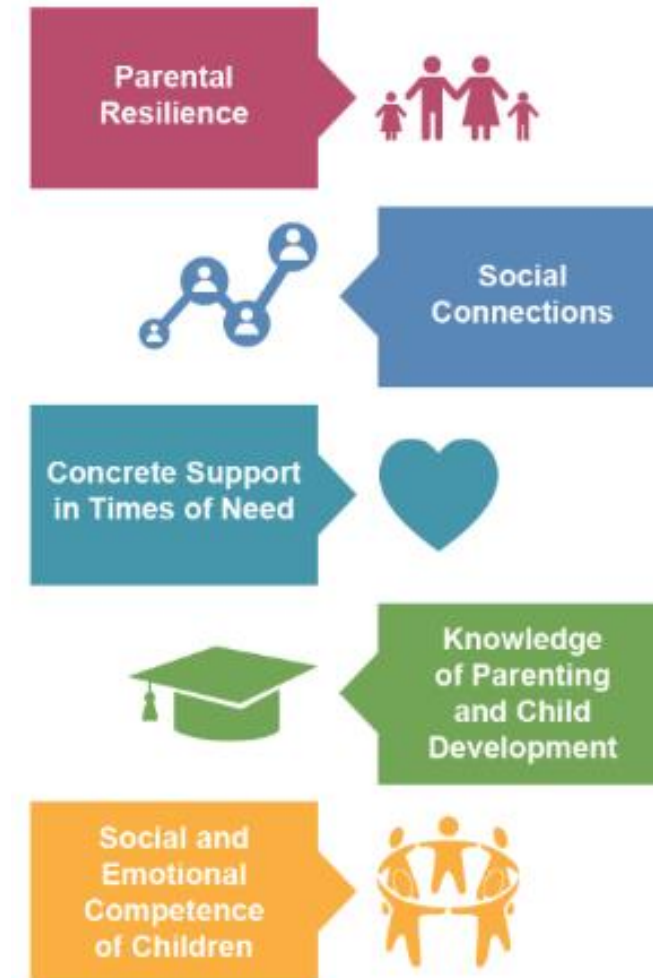
Relevant Factors	Specific Conditions	
Medical Contraindications	Mother <ul style="list-style-type: none"> • Communicable diseases • Some psychotropic medications 	Infant <ul style="list-style-type: none"> • Genetic conditions affecting metabolism • Mechanical (e.g., neurologic, severe cleft lip and palate)
Maternal conditions: Expressed milk only (avoid close contact)	<ul style="list-style-type: none"> • Communicable through close contact (respiratory spread such as untreated active, tuberculosis; Covid-19) 	
Maternal Conditions: Pump and Dump	<ul style="list-style-type: none"> • Communicable through bloodborne contact (e.g., HIV*, cracked nipples/areola with Hep B/C, active herpes/varicella, 	
Special situations: Tailored recommendations	<ul style="list-style-type: none"> • Women with SUD NOT stable in treatment • Heavy alcohol consumption or AUD • Cannabis use (controversial) 	

MOUD is NOT a contraindication to breastfeeding.

***Updated guidelines encourage informed consent for U=U, without actively discouraging breastfeeding
Women don't want to hurt their babies.**

SUPPORTIVE STRATEGIES AND POST-DISCHARGE CARE FOR PREGNANT MOMS

- Find or build stable, experienced recovery program opportunities for teen moms.
 - Address and support basic parenting.
 - Use trauma informed approaches for teens.
 - Growth, skills development to address stigma and build confidence.
- Formulate (shared) prenatal care plan that addresses all phases of pregnancy and breastfeeding (on MOUD).
- Ensure health services for mom (including ongoing MOUD and therapy).
- Medical and neuro-developmental monitoring for baby:
 - Monitoring for additional symptoms.
 - Basic health care supervision for infants.
- Protective Factors for Parenting.



Picture from Children's Home Society, Concept from Center for the Study of Social Policy.

HAVING A PLAN OF SAFE CARE IS VITAL – EVEN FOR TEEN MOMS

The ideal Plan of Safe Care addresses mom's and baby's needs, is multidisciplinary, shared and reinforced.



CARA/CAPTA

CARA/CAPTA (2016 Amendments)

Statewide policies and procedures to address the needs of infants who are affected by substance abuse or withdrawal symptoms. Notify child protective services (CPS) when there are indications of maternal substance abuse, **including legal drugs**, *and there are any other factors indicating risk to a child*

- a. Plans of Safe Care must be developed for infants born and identified as being affected by substance abuse or withdrawal symptoms.
- b. Must address the health and substance abuse treatment needs of the infant and affected family or caregiver (includes FAS, legal and illegal drugs).
- c. Must be monitored to ensure referrals are provided and delivery of appropriate services for the affected infant and affected family or caregiver.
- d. Data points must be reported through the National Child Abuse by States.

PLANS OF SAFE CARE BEST PRACTICES: SMOOTHING THE TRANSITIONS

Interdisciplinary
across health and
social service
agencies

Based on the results of a
comprehensive,
**multidisciplinary
assessment**

Family-focused to meet
the needs of each family
member as well as
overall family functioning
and well-being

Completed, when
possible, in the **prenatal
period** to facilitate early
engagement of parent(s)
and communication
among providers

Easily accessible to
relevant agencies

Grounded in **evidence-
informed practices**

CONSIDERATIONS FOR THE DYAD

- Formulate (and share) an interdisciplinary Plan of Safe Care (POSC) that addresses all phases of pregnancy and breastfeeding (on MAT).
 - Ensure immediate needs are met.
 - Trauma informed services upon release.
 - Assessments to determine needs and safety issues.
- Address health and social determinants across all POSC domains.



HOW IS A PLAN OF SAFE CARE DIFFERENT?

Traditional Plans completed by different disciplines:

Discharge Plans

May focus on health and well-being of the infant.

CWS Safety Plans

Focus on the immediate safety of a child or infant.

SUDS & MH Treatment Plans

Usually focuses on treatment of adults.

Plans of Safe Care are more comprehensive and include both safety and well-being factors such as:

- Safety factors
- Treatment factors for substance use and mental health for adult but also includes broad services for the whole family including the child and the parent-child dyad.
- Include ongoing health and development of the infant as well as educational and treatment needs of family/caregiver who will be caring for the infant.

SPECIAL ISSUES FOR CONSENT TO ADDICTION TREATMENT FOR YOUTH

*****BREAKING NEWS*****

Effective January 1, 2024 - Youth aged 16 years and older in CA can consent to receive MAT for treatment of OUD

*Section 1 Family Code 6929 (4)(e)(2) Notwithstanding paragraph (1), a minor 16 years of age or older may consent to receive medications for opioid use disorder **from a licensed narcotic treatment program** as replacement narcotic therapy without the consent of the minor's parent or guardian **only if, and to the extent, expressly permitted by federal law.***

*Section 2 Family Code 6929.1 Notwithstanding any other law, a minor 16 years of age or older may consent to opioid use disorder treatment that uses buprenorphine at a **physician's office, clinic, or health facility, by a licensed physician and surgeon or other health care provider** acting within the scope of their practice, whether or not the minor also has the consent of their parent or guardian.*

MINOR CONSENT LAWS

- The state of CA allows minors **over 12 years of age** to consent for the following services without parental consent:
 - **Drug or alcohol abuse treatment**
 - Outpatient mental health services/shelter services
 - Prevention, diagnosis and treatment of STIs
 - Diagnosis and treatment of other communicable diseases
 - Intimate partner violence
 - HIV/AIDS prevention, testing, and treatment
- The state of CA allows minors of **any age** to consent for the following services without parental consent:
 - Prevention and treatment of pregnancy
 - Sexual assault services, and medical care for rape*
 - Contraception including abortion
- Minors **≥ 16 years of age may:**
 - Consent to treatment with “replacement narcotic therapy” from a licensed NTP; and buprenorphine at a physician’s office, clinic or health facility
- Minors **may not:**
 - Refuse medical care and counseling for a drug or alcohol related problem **when** the minor’s parent consents to that treatment



SOURCE : Unsplash

MINOR CONSENT LAWS: PRIVACY AND RELEASE OF INFORMATION

- When a state law allows minors to give consent for their own drug or alcohol abuse treatment, federal law generally prohibits providers from disclosing any information related to that treatment without the minor’s written consent.
- Consequently, with limited exceptions, the privacy, access and confidentiality laws protecting others in SUD treatment apply to adolescents who have applied for and are receiving SUD treatment.
 - HIPAA:
 - Passed in mid-1990s, updates in 2009 and 2013.
 - Defines “covered entities” and “business associates.”
 - “General” rule which healthcare operates to ensure data privacy/security.
 - 42 CFR part 2:
 - Enacted in early 1970s (no “HIPAA” at that time).
 - Ensure individuals seeking treatment for SUD would not be retaliated against.



Source: <https://www.hhs.gov/about/news/2019/08/22/hhs-42-cfr-part-2-proposed-rule-fact-sheet.html>

SHARING INFORMATION ABOUT ADOLESCENTS IN SUD TREATMENT

- In general, the teen's consent is required to disclose information that would identify this individual in SUD treatment.
 - Information required on a valid consent form is the same as for adults (nine criteria for 42 CFR part 2).
 - That includes parents, teachers, and law enforcement (even with a routine subpoena signed by a judge).
 - EXCEPTION: When the parent/guardian seeks care for a drug- or alcohol-related problem of a minor (CA Family code section 6929).
- Consent is even required to disclose information about SUD treatment of youth in the Juvenile Justice System (JJS).
 - Rules about the length of time consent is valid for youth in JJS depend on:
 - "Substantial Change in Status."
 - Whether juvenile is receiving treatment in lieu of prosecution.

SUMMARY

IN SUMMARY



There is a huge need for OUD (and all SUD) services for adolescents (N.B., many are now seeking out fentanyl by choice).

Adolescent brain development predisposes them to risky behaviors including substance use.

MAT/MOUD should be made available to all adolescents who need it, including pregnant teens.

Adolescents can legally consent to most treatment for SUD, now including buprenorphine but MAY NOT consent to treatment with methadone. The “two detox treatment failures” requirements has been eliminated for MAT.

We can create a continuum of youth-specific and relevant services for this population that consider:

- Different use patterns and practices among adolescents.
- Treatment and harm reduction approaches that exploit effective use of social media, venues when they use and peer-delivered messages.

CHATTERFALL

Think about an adolescent you know who has struggled with addiction.

Reflecting on what you have heard so far today, has your thinking about their behavior related to SUD or treatment changed?

- If yes, please type a brief sentence about how your thinking may have changed.



TIME FOR THE POLL...

POLL

Do you know a young person who has received MAT for OUD?

- A. Yes
- B. No

If you answered yes in the previous poll, from your perspective, is/was this treatment helpful for them?

- A. Yes
- B. No
- C. N/A (I do not know a youth who has received MAT for OUD)



QUESTIONS?

POLLING QUESTIONS

Overall, today's webinar was:

- A. Very useful
- B. Somewhat useful
- C. Not very useful
- D. Not useful at all

The material presented today was:

- A. At the right level
- B. Too basic
- C. Too detailed

THANK YOU!

REFERENCES

REFERENCES

- Adolescent Brain Cognitive Development Study (ABCD). Main webpage accessible at <https://abcdstudy.org>
- American Academy of Child and Adolescent Psychiatry (AACAP). (2017). Teen Brain: Behavior, Problem Solving, and Decision Making. https://www.aacap.org/AACAP/Families_and_Youth/Facts_for_Families/FFF-Guide/The-Teen-Brain-Behavior-Problem-Solving-and-Decision-Making-095.aspx
- California Departments of Social Services and California Department of Health Care Services (DHCS). (n.d.) Foster Care Quality Improvement Project: Guidelines for the Use of Psychotropic Medications with Children and Youth in Foster Care. <https://www.courts.ca.gov/documents/BTB24-1G-12.pdf>
- California Legislative Information. (2024). WELFARE AND INSTITUTIONS CODE – WIC. https://leginfo.legislature.ca.gov/faces/codes_displaySection.xhtml?sectionNum=369.5.&lawCode=WIC
- Camenga, D. R., et al. (2019). Medications for Maintenance Treatment of Opioid Use Disorder in Adolescents: A Narrative Review and Assessment of Clinical Benefits and Potential Risks. *Journal of studies on alcohol and drugs*.
- Campaign for Trauma Informed Policy and Practice (CTIPP). (2023). Harness NEAR Science for Developmental Resilience. <https://www.ctipp.org/aces-and-da>
- COMMITTEE ON SUBSTANCE USE AND PREVENTION (2016). Medication-Assisted Treatment of Adolescents With Opioid Use Disorders. *Pediatrics*, 138(3), e20161893. <https://doi.org/10.1542/peds.2016-1893>
- Feder, K. A., Krawczyk, N., & Saloner, B. (2017). Medication-Assisted Treatment for Adolescents in Specialty Treatment for Opioid Use Disorder. *The Journal of adolescent health : official publication of the Society for Adolescent Medicine*, 60(6), 747–750.
- Finch, A. J., et al. (2020). Recovery and Youth: An Integrative Review. *Alcohol research : current reviews*, 40(3), 06.
- Gray, K. M., & Squeglia, L. M. (2018). Research Review: What have we learned about adolescent substance use?. *Journal of child psychology and psychiatry, and allied disciplines*, 59(6), 618–627.
- Hadland, S. E., et al. (2018). Receipt of Timely Addiction Treatment and Association of Early Medication Treatment With Retention in Care Among Youths With Opioid Use Disorder. *JAMA pediatrics*, 172(11), 1029–1037.

REFERENCES

- Hadland, S. E., et al. (2017). Trends in Receipt of Buprenorphine and Naltrexone for Opioid Use Disorder Among Adolescents and Young Adults, 2001-2014. *JAMA pediatrics*, 171(8), 747–755.
- Leiberman A, Davis C. Legality of Dispensing Naloxone to Minors in California. Network of Public Health Law. July 14, 2022. Accessed on February 28, 2024. <https://www.networkforphl.org/resources/legality-of-dispensing-naloxone-to-minors-in-california/>
- Levy S. (2019). Youth and the Opioid Epidemic. *Pediatrics*, 143(2), e20182752.
- Levy, S., et al. (2018). A novel approach to treating adolescents with opioid use disorder in pediatric primary care. *Substance abuse*, 39(2), 173–181.
- Liddle, H. A., et al. (2002). Transporting a research-based adolescent drug treatment into practice. *Journal of substance abuse treatment*, 22(4), 231–243. [https://doi.org/10.1016/s0740-5472\(02\)00239-8](https://doi.org/10.1016/s0740-5472(02)00239-8)
- Marshall, B. D., et al. (2016). Harm reduction for young people who use prescription opioids extra-medically: Obstacles and opportunities. *The International journal on drug policy*, 31, 25–31.
- Martin, J. A., et al. (2019). Births: Final Data for 2018. *National vital statistics reports: from the Centers for Disease Control and Prevention, National Center for Health Statistics, National Vital Statistics System*, 68(13), 1–47.
- Meier, M. H., et al. (2012). Persistent cannabis users show neuropsychological decline from childhood to midlife. *Proceedings of the National Academy of Sciences of the United States of America*, 109(40), E2657–E2664.
- National Consortium on Alcohol and Neurodevelopment in Adolescents. Main webpage is accessible at <http://www.ncanda.org/index.php>
- National Center for Youth Law. Frequently Asked Questions about Minor Consent for Substance Use Disorder Services in California. <https://cshca-wpengine.netdna-ssl.com/wp-content/uploads/2020/12/NCYL-SUD-Minor-Consent-FAQ.pdf>
- National Institute on Drug Abuse (NIH). (2023). Adolescent Brain and Cognitive Development (ABCD Study). <https://www.drugabuse.gov/drug-topics/adolescent-brain/longitudinal-study-adolescent-brain-cognitive-development-abcd-study>
- National Center for Youth Law. Consent to Treatment for Minors in Foster Care – By Custody and Placement. (2019). <http://teenhealthlaw.org/wp-content/uploads/2021/09/Dep-Custody-Consent-chart2021.pdf>

REFERENCES

- RHEP for Foster Youth. (n.d.). Health Providers. <https://fosterreprohealth.org/know-the-law-2/>
- Salas-Wright, C. P., et al. (2015). Substance use and teen pregnancy in the United States: evidence from the NSDUH 2002-2012. *Addictive behaviors*, 45, 218–225.
- Silvers, J. A., et al. (2019). Hunting for What Works: Adolescents in Addiction Treatment. *Alcoholism, clinical and experimental research*, 43(4), 578–592.
- Society for Adolescent Health and Medicine (2021). Medication for Adolescents and Young Adults With Opioid Use Disorder. *The Journal of adolescent health : official publication of the Society for Adolescent Medicine*, 68(3), 632–636.
- St Marie, B., et al. (2020). Use and Misuse of Opioid Pain Medications by Pregnant and Nonpregnant Women. *Pain management nursing : official journal of the American Society of Pain Management Nurses*, 21(1), 90–93. <https://doi.org/10.1016/j.pmn.2019.05.002>
- Substance Abuse and Mental Health Services Administration (SAMHSA), (2019) Center for Behavioral Health Statistics and Quality (CBHSQ) National Survey on Drug Use and Health. Table 2.6B— Alcohol Use in Lifetime, Past Year, and Past Month among Persons Aged 12 or Older, by Detailed Age Category: Percentages, 2018 and 2019. <https://www.samhsa.gov/data/sites/default/files/reports/rpt29394/NSDUHDetailedTabs2019/NSDUHDetailedTabsSect2pe2019.htm#tab2-6b>.
- Substance Abuse and Mental Health Services Administration (SAMSHA). (2014). The TEDS Report: Age of Substance Use Initiation among Treatment Admissions Aged 18 to 30. https://www.samhsa.gov/data/sites/default/files/WebFiles_TEDS_SR142_AgeatInit_07-10-14/TEDS-SR142-AgeatInit-2014.pdf
- U.S Department of Health and Human Services (HHS). (2023). SAMHSA Announces National Survey on Drug Use and Health (NSDUH) Results Detailing Mental Illness and Substance Use Levels in 2021. <https://www.hhs.gov/about/news/2023/01/04/samhsa-announces-national-survey-drug-use-health-results-detailing-mental-illness-substance-use-levels-2021.html>

REFERENCES

HARM REDUCTION

- Bagley, S. M., et al. (2021). Integrating substance use care into primary care for adolescents and young adults: Lessons learned. *Journal of substance abuse treatment*, 129, 108376.
- BMore Power. (2024). Fentanyl acts fast. Go Slow. <https://www.goslow.org/>
- Hadland, S. E., et al. (2021). Evidence-Based Treatment of Young Adults With Substance Use Disorders. *Pediatrics*, 147(Suppl 2), S204–S214.
- Hadland, S. E., et al. (2018). Receipt of Timely Addiction Treatment and Association of Early Medication Treatment With Retention in Care Among Youths With Opioid Use Disorder. *JAMA pediatrics*, 172(11), 1029–1037.
- Jenkins, E. K., et al. (2017). Developing harm reduction in the context of youth substance use: insights from a multi-site qualitative analysis of young people's harm minimization strategies. *Harm reduction journal*, 14(1), 53.
- Linton, S. L., et al. (2021). "People Don't Just Start Shooting Heroin on Their 18th Birthday": A Qualitative Study of Community Stakeholders' Perspectives on Adolescent Opioid Use and Opportunities for Intervention in Baltimore, Maryland. *Prevention science : the official journal of the Society for Prevention Research*, 22(5), 621–632.
- Marshall, B. D., et al. (2016). Harm reduction for young people who use prescription opioids extra-medically: Obstacles and opportunities. *The International journal on drug policy*, 31, 25–31.
- National Harm Reduction Coalition. (2024). We Work For The Harm Reduction Movement. <https://harmreduction.org/>

REFERENCES FOR MAT

- Baser, O., et al. (2011). Cost and utilization outcomes of opioid-dependence treatments. *The American journal of managed care*, 17 Suppl 8, S235–S248.
- DrugInserts.com (2024). About DrugInserts.com. www.druginserter.com
- Kakko, J., et al. (2003). 1-year retention and social function after buprenorphine-assisted relapse prevention treatment for heroin dependence in Sweden: a randomised, placebo-controlled trial. *Lancet (London, England)*, 361(9358), 662–668.
- Krupitsky, E., et al. (2011). Injectable extended-release naltrexone for opioid dependence: a double-blind, placebo-controlled, multicentre randomised trial. *Lancet (London, England)*, 377(9776), 1506–1513.
- Laroche, M. R., et al. (2018). Medication for Opioid Use Disorder After Nonfatal Opioid Overdose and Association With Mortality: A Cohort Study. *Annals of internal medicine*, 169(3), 137–144
- Lobmaier, P., et al. (2008). Sustained-release naltrexone for opioid dependence. The Cochrane database of systematic reviews, (2), CD006140.
- Mattick, RP, et al. (2014) Buprenorphine maintenance versus placebo or methadone maintenance for opioid dependence. Cochrane Systematic Review.
- Mattick, RP, et al. (2009) Methadone maintenance therapy versus no opioid replacement therapy for opioid dependence. Cochrane Systematic Review, 2009.
- National Academies of Sciences, Engineering, and Medicine; Health and Medicine Division; Board on Health Sciences Policy; Committee on Medication-Assisted Treatment for Opioid Use Disorder, Manchur, M., & Leshner, A. I. (Eds.). (2019). Medications for Opioid Use Disorder Save Lives.

REFERENCES FOR MAT

- National Institute on Drug Abuse (NIH). (2018). Principals of Drug Addiction Treatment: A Research Based Guide. <https://nida.nih.gov/sites/default/files/podat-3rdEd-508.pdf>
- Nosyk, B., et al. (2012). Defining dosing pattern characteristics of successful tapers following methadone maintenance treatment: results from a population-based retrospective cohort study. *Addiction (Abingdon, England)*, 107(9), 1621–1629.
- Rich, J. D., et al. (2015). Methadone continuation versus forced withdrawal on incarceration in a combined US prison and jail: a randomised, open-label trial. *Lancet (London, England)*, 386(9991), 350–359.
- Substance Abuse and Mental Health Services Administration (SAMHSA). (2018). TIP 63: Medications for Opioid Use Disorder – Full Document. <https://store.samhsa.gov/product/tip-63-medications-opioid-use-disorder-full-document/pep21-02-01-002>
- Substance Abuse and Mental Health Services Administration (SAMHSA). (2019). Use of Medication-Assisted Treatment for Opioid Use Disorder in Criminal Justice Setting. <https://store.samhsa.gov/product/Use-of-Medication-Assisted-Treatment-for-Opioid-Use-Disorder-in-Criminal-Justice-Settings/PEP19-MATUSECJS>
- Substance Abuse and Mental Health Services Administration (US), & Office of the Surgeon General (US). (2018). *Facing Addiction in America: The Surgeon General's Spotlight on Opioids*. US Department of Health and Human Services.
- The ASAM National Practice Guideline for the Treatment of Opioid Use Disorder: 2020 Focused Update. (2020). *Journal of addiction medicine*, 14(2S Suppl 1), 1–91.
- Wakeman, S. E., et al. (2020). Comparative Effectiveness of Different Treatment Pathways for Opioid Use Disorder. *JAMA network open*, 3(2), e1920622.

RESOURCES

- The main webpage for youth MAT expansion projects is here.
https://californiaopioidresponse.org/projects/current-projects/?_project_focus=youth
- Advocates for Human Potential and the CA Institute for Behavioral Health Solutions oversee 42 YOR projects and treatment programs. Their specific website is <https://yorcalifornia.cibhs.org/>

CONTACT US

FOR ANY QUESTIONS OR COMMENTS
MATinCountyCJ@healthmanagement.com