



Connecting Recovery | Healing Communities

METHADONE FOR OUD

ARI GREENBERG, PAC

2026



Definition

Addiction is defined as a chronic, relapsing brain disease that is characterized by compulsive drug seeking and use, despite harmful consequences.

It is considered a brain disease because drugs change the brain—they change its structure and how it works.

Source: National Institute of Drug Abuse (NIDA)

Opiate Withdrawal Timeline

Start

Take your
last dose



72 Hours

Physical
symptoms at
peak

Chills, fever, body aches,
diarrhea, insomnia, muscle
pain, nausea, dilated pupils



1 Week

Physical
symptoms
start to lessen

Tiredness, sweating,
body aches, anxiety,
irritability, nausea



2 Week

Psychological
and emotional
symptoms

Depression, anxiety,
irritability, restlessness,
trouble sleeping



1 Month

Cravings and
depression

Symptoms can linger
for weeks or months



Opioid Treatment Program - OTP

- Licensed by SAMHSA and the DEA.
- Inspected and certified by JCAHO & CARF
- Is the only location outside of a hospital where **Methadone** may be used to treat opioid use disorder or relieve withdrawal symptoms.
- THE most regulated of any area of medicine in the US.



What does an OTP do?

- Dispenses
 - **Methadone**
 - Buprenorphine
 - Naltrexone
- Dosing
 - In-clinic
 - Take-homes
- Psychosocial-behavioral therapy
- Regular urine drug screening is required.
- Complies with all state and federal regulations.



Federal Regulations

- Established from 1970-1974
- 2001 - Most recent regulatory revision
 - Shifted OTP oversight from the **FDA to SAMHSA**
 - Created an accreditation model - **CARF**
- Until April 2024, **no significant changes**
 - Primary goal was to prevent **diversion** of Methadone
 - What was not the primary goal -> **Helping people who use opioids**
- SAMHSA's Final Rule
 - Proposed December 2022
 - Released February 2024
 - Effective April 2024
 - Compliance October 2024



SAMHSA
Substance Abuse and Mental Health
Services Administration

States' Adoption

While states can't choose to be less restrictive than the federal regulations, they can choose to be **MORE restrictive.**

The Montana SOTA is Jacky Jandt.

Montana uses the federal guidelines and does not impose additional regulations on OTPs.

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History and Regulation of Methadone

- Synthesized in 1937 by Germany
 - Substitute for morphine embargo
- Approved in the U.S. in 1947 for pain/cough relief
 - **Dolophine**
- First published article on treatment for OUD
 - Kreek, Dole, & Nyswander -1965 in JAMA
- 1971 – approved for OUD
- **Methadone** is one of the most researched medical treatments for any chronic disease in the world



MOUD Outcome Data

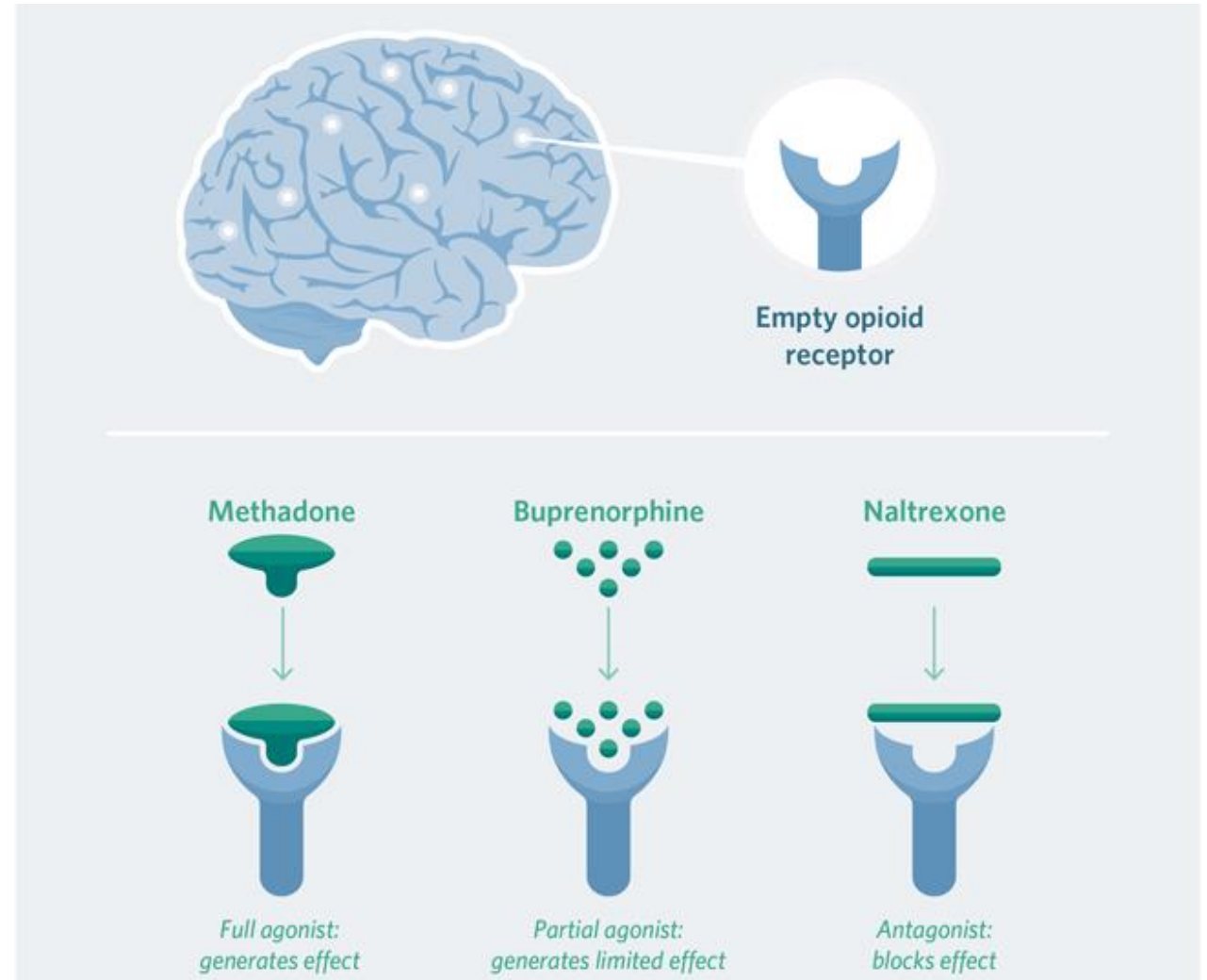
- Meta-analyses continue to show abstinence-based treatment is ineffective for treating OUD, and **MOUD is the gold standard**.
 - More than 90% of patients with OUD in abstinence-based treatment return to opioid abuse within one year.
- Risk of overdose is 12 times higher after incarceration.
 - **MOUD** reduces this rate by up to 75%.
- There is no scientific evidence that links **Methadone** to rotting bones, rotting teeth, or causing weight gain.



Solution: MOUD Treatment Modalities



How MOUD Medications Work in the Brain

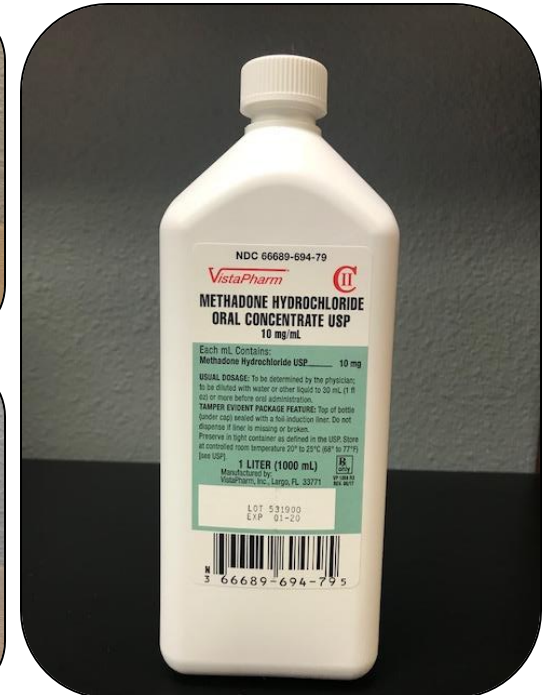
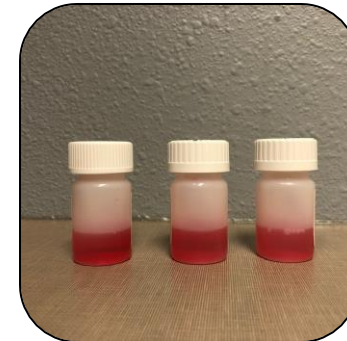


Methadone

- A synthetic opioid
- Full agonist – activates the receptor 100%
- Long lasting, slowly released over 24-36 hours
- Avg dose 80 – 120mg
- Peak/Trough evaluation typically around 200mg
 - Fast metabolizer
 - Toxicity
- Benzodiazepines are not contraindicated with methadone, careful monitoring by medical provider ensures safety of client

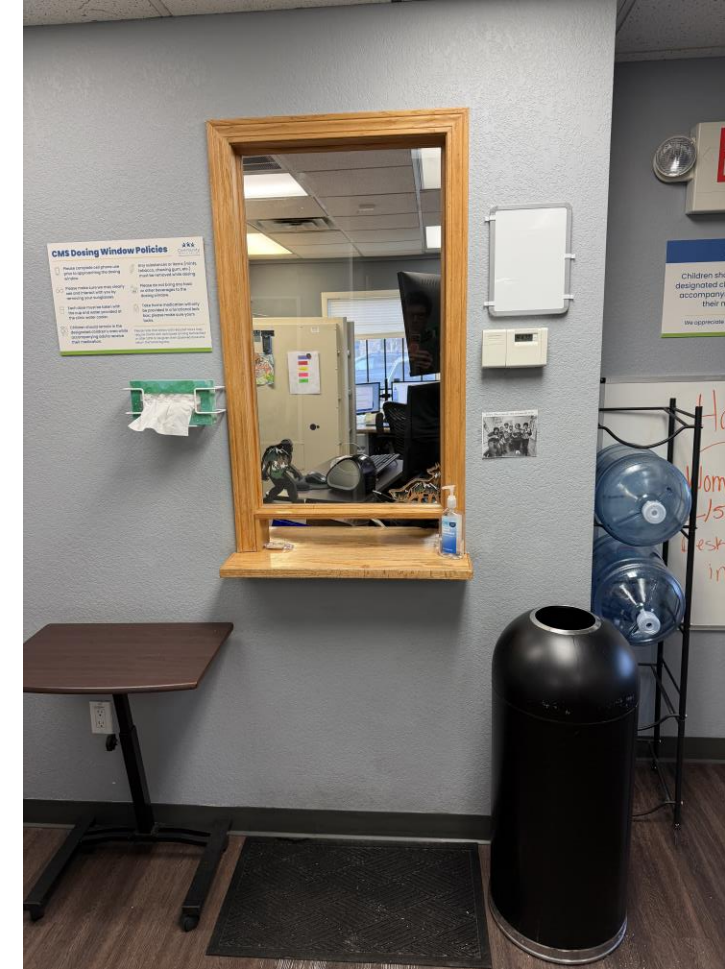
Therapeutic Goals

- ✓ Alleviates withdrawal symptoms
- ✓ Reduces cravings
- ✓ Blocks euphoric effect of other opioids



Methadone induction dosing

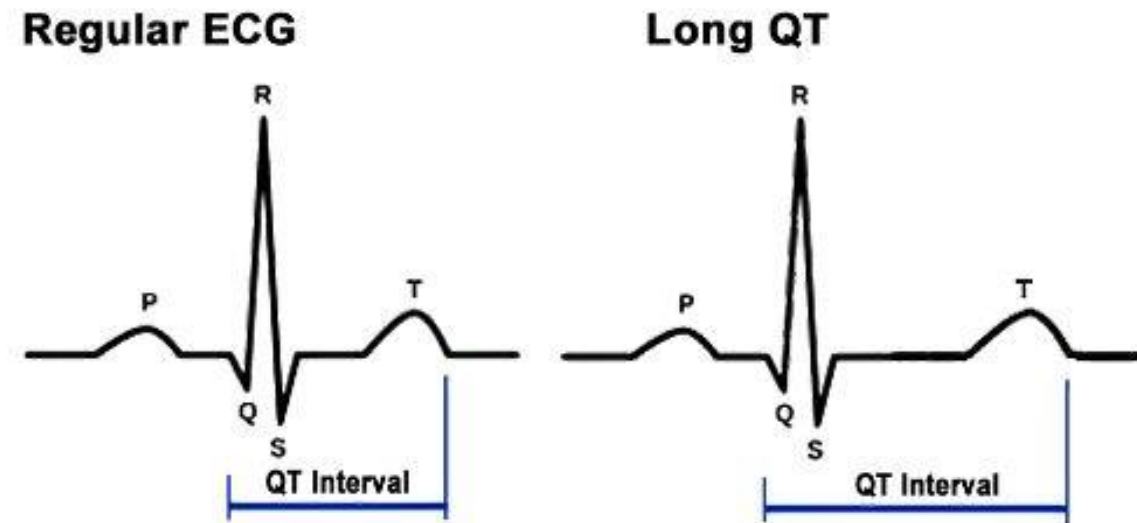
- **Intake doses:**
 - Up to 50 mg (where allowed)
 - If state regulations restrict: 30 mg, the 2nd day possibly up to 50 mg
- **1st week Dose increases:**
 - Only on clinic dosing days
 - Most patients admitted on triweekly TH's
 - Daily dosing as needed
- **Maximum dose at 7 days - 80 mg**
 - Higher opioid tolerances
 - Further dose increases require follow-up medical visit
- **Dosing after the 1st week**
 - 5-10 mg every 2-5 days



Methadone – Side Effects/Adverse Events

- Risk for overdose
- Constipation
- Nausea
- Sweating
- Hormonal dysregulation
- Xerostomia
- QT prolongation
 - Torsades de Pointes
 - Very uncommon

Tx -> Titrate down or Symptomatic mgmt



Methadone – Drug-Drug Interactions

- **CNS depression**

- Respiratory depression**

- Other opiates
 - Alcohol
 - Benzodiazepines

- Sedation**

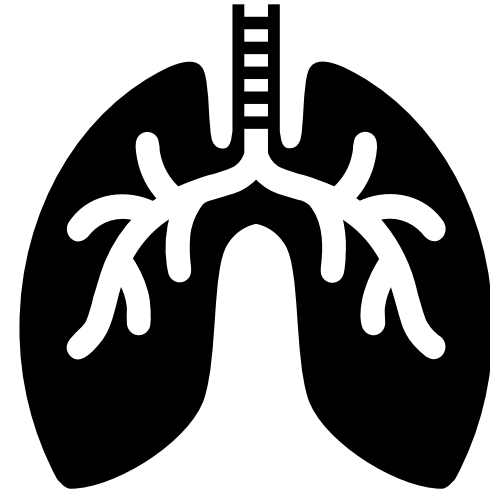
- Antipsychotics
 - Sedating antihistamines

- **Precipitated Withdrawals**

- Buprenorphine
 - Naloxone/Naltrexone

- **Blocking effect**

- Buprenorphine
 - Naltrexone



Methadone – Drug-Drug Interactions

- **Decreased metabolism** (requiring less MTD)
 - Antifungals
 - SSRI's
- **Increased metabolism** (requiring more MTD)
 - Anticonvulsants
 - Rifampin
- **QT prolongation -> Torsades de Pointes**
 - Seroquel
 - Azithromycin
 - Amiodarone
 - Escitalopram
 - Levofloxacin
 - Olanzapine
 - Risperidone
 -Many less commonly used meds (UptoDate/OpenEvidence)

Length of Treatment

- Anything <1 year is not effective; 3+ years is ideal

- 25% of patients eventually become abstinent
- 25% continue to take medication
- 50% go on and off MOUD repeatedly

- Length of time in treatment is different for every patient; it is as long as they need it to be
- Tapering off is a slow process

Pregnancy and OUD

- **Pregnant women with OUD are at increased risk for adverse pregnancy outcomes**
 - Preterm labor, fetal death, growth restriction
 - Significant risks for the fetus, secondary to maternal overdose (Coma, aspiration, hypothermia, cardiovascular collapse)
- **Medically supervised withdrawal or detox from opioids is not recommended during pregnancy**
 - ☐ High rate of return to use
 - ☐ Higher risk of overdose

MOUD during pregnancy is the gold standard of care for women with OUD by the World Health Organization (WHO) and the American College of Gynecologists and Obstetricians (ACOG).

Neonatal Opioid Withdrawal Syndrome (NOWS)



- Many studies report **mother's dose of Methadone** is unrelated to the diagnosis or severity of NOWS
- Multiple studies indicate **breastfeeding decreases NOWS severity** in mothers who initiate breastfeeding while on methadone
- **Methadone** is transferred to breast milk, but the amount baby would ingest is **less than 1% of mom's dose**



Common Misconceptions About MOUD

Is MOUD trading one addiction for another?

Methadone - FDA approved medication (we know the strength/potency of the medication)

Methadone is monitored by a medical provider

Methadone is long-acting – does not cause a euphoric effect when administered

You may not know the potency/strength of illicit opioids

We are treating/managing your OUD, you're not trying to manage withdrawal symptoms on your own

Illicit opioids are short-acting with a **fast onset** leading to a euphoric effect which reinforces the good feeling and the desire to continue to use

The Problem of Diversion

- Diversion cannot be prevented and could be increased with more TH doses.
- Most diverted doses are used to prevent withdrawal or other drug use.
- Risk of overdose from diversion is unknown but unlikely to be anywhere near the risk from untreated OUD.
- We must be careful in balancing diversion vs. access



- Magdalena Harris, Tim Rhodes, Methadone diversion as a protective strategy: The harm reduction potential of 'generous constraints', International Journal of Drug Policy, Volume 24, Issue 6, 2013, Pages e43-e50, ISSN 0955-3959, <https://doi.org/10.1016/j.drugpo.2012.10.003>.

Goals of OUD Treatment

Direct patient outcomes:

- ✓ Mortality/morbidity
- ✓ Employment
- ✓ Housing
- ✓ Lack of criminal activity
- ✓ Stable relationships
- ✓ Retention in treatment

Relapse

- Discharging patients who need help the most (i.e. ongoing use, inconsistent dosing) is a treatment failure

Urine drug screens

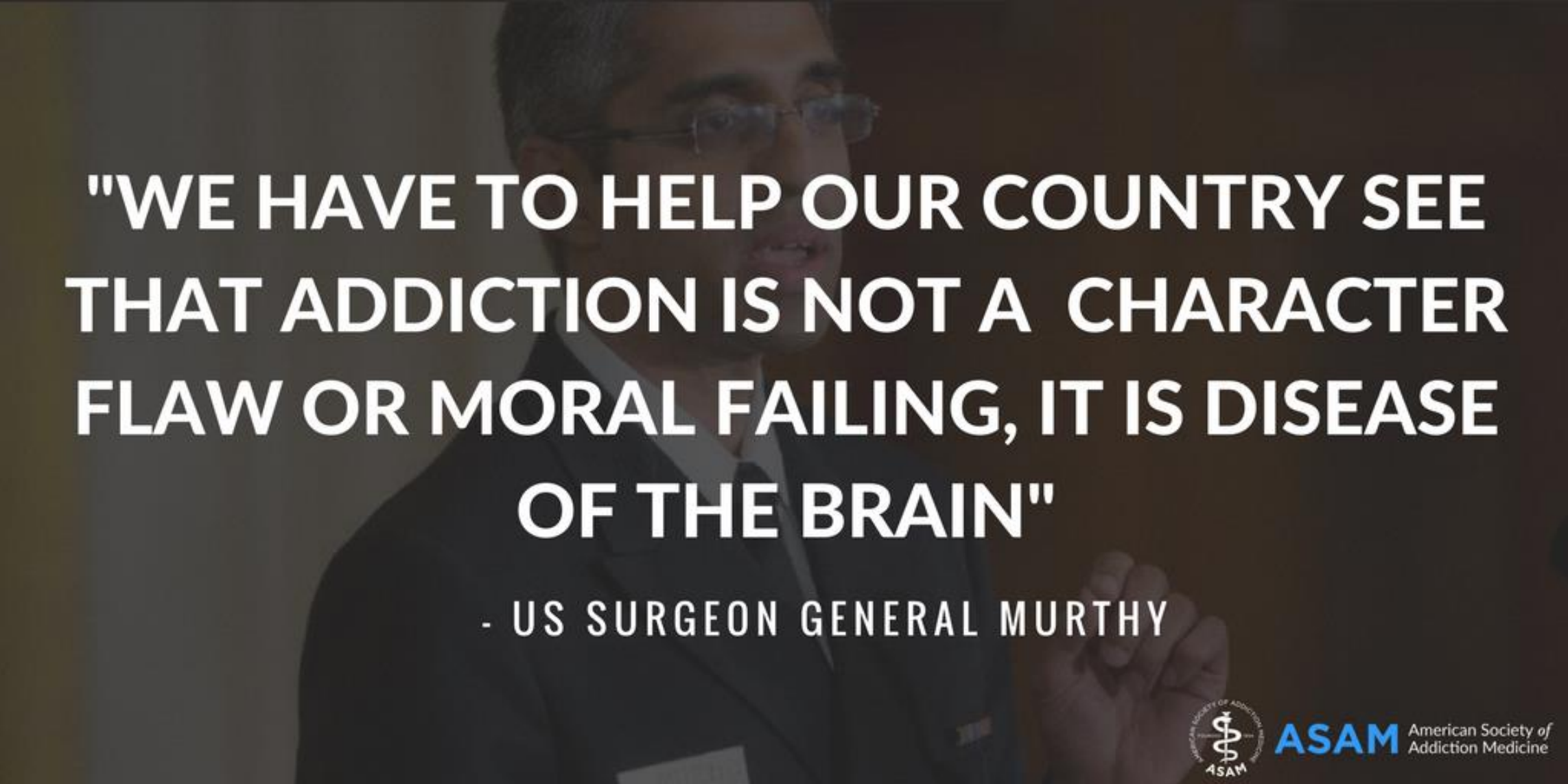
- Are not a measure of treatment success. They do not directly alter dose regimen, only take-homes.
- Means for Diversion Mitigation

- MOUD is effective when it continues to be beneficial to the client, their family, and the community

Harm Reduction – Reducing Barriers to Tx

- **While abstinence may be a final goal, it is not required, and everyone is welcome whether they are ready to stop using or not**
 - No discharging d/t UDS results
- **Most patients start at tri-weekly take-homes.**
 - Move to weekly visits after 2 weeks
 - Clinic hours for work and other normal activities
 - Wait times < 5 minutes
- **Financial issues should not be a barrier**
 - Medicaid (note: Medicaid expansion critical to maintain access)
 - Treatment starts with no initial payment
 - **Out-of-pocket cost is less than illicit drugs**
- **MOUD remains stigmatized - even among PWUDs.**
 - Much more public outreach and education needed





**"WE HAVE TO HELP OUR COUNTRY SEE
THAT ADDICTION IS NOT A CHARACTER
FLAW OR MORAL FAILING, IT IS DISEASE
OF THE BRAIN"**

- US SURGEON GENERAL MURTHY



ASAM American Society of
Addiction Medicine