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Methadone Then and Now

A long and winding road that included changes in how we think about treating Opioid Use Disorder.

HISTORY REPEATS ITSELF

- The **Opioid Pandemic** has been upon us but is not new. The names have changed but the **deaths** remain the same.
- 1989 in the state of Ohio only **9 OTP's Opioid Treatment Programs**
- Today there is **92** and **40 +** waiting to become licensed.

❖ The Transition from treating Heroin Dependency to now treating Fentanyl, Car Fentanyl along with the Oxycodone's, OxyContin's, Opanas and the other assortment of narcotics truly like night and day.

- ▶ Historically a patient presented with Heroin Dependence 1989
- ▶ Some in Ohio were dependent on dilaudid and/or Talwin mixed with Tripleannamine T's and B's.
- ▶ Typically, a patient would be placed either on methadone at 30 mgs.
- ▶ Incrementally raised the dose until signs of withdrawal dissipated
- ▶ 60 to 70 mgs would take about two weeks
- ▶ This was also “called” the blockade dose. Meaning that at that dosage a patient would not feel the effects of injected Heroin. Try as they may it seemed to work, most of the time. So, although most of the patients were using heroin and were classifying them selves as IV heroin users, there was hope with daily methadone ingestion.

Pioneers in the field of Opioid Dependency- Methadone Treatment

- ▶ Vincent Dole **Vincent Dole was an American doctor, who, along with his wife, Marie Nyswander, developed the use of methadone to treat heroin addiction. [Wikipedia](#)**
- ▶ **Born: May 18, 1913, [Chicago, IL](#)**
- ▶ **Died: August 1, 2006, [Manhattan, New York, NY](#)**
- ▶ Marie Nyswander-
- ▶ **Born: March 13, 1919 [Reno Nevada](#)**
- ▶ **Died: Apr 21, 1986 – Dr. Marie Nyswander, a psychiatrist who helped develop the use of methadone to treat heroin addiction, died of cancer in her home in [Manhattan, NY.](#)**

- The introduction of methadone in the early 1960's, two researchers - **Dr. Vincent Dole**, an endocrinologist, and **Dr. Marie Nyswander**, a psychiatrist-began research on a new method of treating heroin addicts.
- Dole and Nyswander hypothesized that addicts could benefit from a type of treatment in which they were given a medication **that could satisfy their craving**, reduce their drug-seeking behavior, and allow them to lead productive lives. Dole, who had previously done considerable research on **diabetes** and the value of **insulin**, viewed the condition of the **heroin addict** as analogous to that of the **diabetic**.
- Dole and Nyswander thought it possible that heroin addicts were motivated by a biological need for opiates and that this need resulted from either an inborn deficiency or the effect of damage created by chronic administration of heroin. Regardless of the origin of the deficiency, they believed that a possible solution was to provide addicts with a medication that would satisfy their physical craving for opiates and decrease their drug-seeking behavior and the concomitant crime and antisocial behavior required to obtain illegal supplies of heroin.

Dr.s Nyswander in Dole began the first viable experimentation with Methadone and changed thousands of lives in the process.

- In 1963, Dole and Nyswander began a project to evaluate methadone for the treatment of heroin addiction. They chose methadone because it was
- A long-acting medication that could be taken orally. Methadone was demonstrated to have a therapeutic effect of **24 hours** (this property is known as half-life
- Methadone administration could be limited to **once** per day.
- This was a tremendous benefit over opiates such as heroin and morphine, which have half-lives of four to six hours and need to be administered three to four times per day. The fact that
- Methadone could be administered orally, also gave it tremendous advantages over opiates that were injected.
- These properties of methadone made it the choice of Dole and Nyswander for testing their hypothesis about the value of a medical treatment for heroin addiction.

Methadone Treatment “A long and winding Road”
“How far we have come and yet remained the
same”

Methadone has been the most **praised** and, at the
same time, **damned** treatment modality for the
treatment of addiction.

- Methadone Maintenance is the most widely used treatment and the most widely **evaluated**.
- Few other treatments in medicine, psychiatry, or psychology have created the **furor and controversy** that methadone has generated.
- This controversy has resulted in much **misinformation** about the nature of methadone, the medication, and methods of treatment.

In the 1980's with the **HIV/AIDS** issues, methadone became another useful tool and could be used to help those who *“had seen the needle and felt the damage done”* ; now had a way to keep from using the needle and alleviate the strong cravings that opioid dependency brings about. In the late 1980s the term called **Harm Reduction** was coined for Substance Use Disorder, and the first of the needle exchanges were created. In the mid 1990's harm reduction became important due to the many people who were injecting heroin and the prevalence of *Hepatitis C.*

WHAT IS HARM REDUCTION? *Harm reduction in the USA: the research perspective and an archive to David Purchase*

Harm Reduction is:

Managing a patient who is addicted to a drug with clean needles and a set quantity of drug

Additional Information

It is not possible for all addicts to become drug free harm reduction seeks to minimize the harmful effects while maintaining a person at a function level.

Submitted By: [Thomas dreiling](#) - 03/09/2016

In 1989 Methadone was not supported by the Ohio Department of Alcohol and Drug Addiction Services- ODADAS

- It was 1989 and Methadone Treatment was not supported, as a viable treatment option.
- Heroin was ravaging the bodies of people of all ages and store owners were still complaining of shop lifting being out of control in and around Cincinnati, Ohio.
- The state of Ohio where only **9 Narcotics Treatment Programs** existed and less than adequate medications were being given, at some programs; *change was slow*.
- We had a problem in Ohio as our leaders from the state did not believe in **Medicated Assisted Treatment using methadone**. Advocacy was practically non-existent. Except for the few providers, mostly non-profits struggling to get by with what they kept the hope alive by treating those dependent on heroin with methadone.

What most lay people think a Drug Treatment Program is?

- When I walked into the Narcotics Treatment Program in Cincinnati, Ohio in October of 1989
- I was truly amazed at how the patients were normal everyday people and mostly white. Although we were in a Catchment Area which was predominantly African American our clientele was 95% white.
- **No advertising** and dare not have a sign saying anything about methadone.
- In 1989 we were a “**blind dosing**” clinic.
- Mostly obsolete today but back then it was used to focus on treatment not doses. Blind Dosing has been gone for years in Southwest Ohio as we continue to learn more and now know it did not help as was thought

- ❖ In 1989 Heroin and pain pills were the opioid drug(s) of choice. Dilaudid was also used often in the Midwest and especially prevalent in Cincinnati, Ohio. Methadone Treatment which consisted of the [medication, individual counseling, and group therapy].
- ❖ Typically getting patients off Heroin worked well with daily ingestion on methadone. In this state only **liquid methadone** was allowed and the typical dosages ranged from **30 mgs. to 80 mgs.** This was due to the strict administration standards provided methadone programs at the time by the Federal Government and oversight at the state.

1976 – 1989 -**Methadone** was still in the beginning stages in Ohio as the first programs came in around 1976 and by 1989 were still struggling as a viable treatment option.

Abstinence was still the only way for some folks back then. The important thing to remember is that with methadone a person injecting heroin daily could be helped with the use of methadone. Methadone worked and no matter what amount of heroin was used **65 mgs.** of methadone daily could help them remain free from heroin.

Why 65 mgs. you speak? Well, it was common knowledge at that time that somewhere in the range of 60-65 mgs of methadone daily would block the effects of injecting heroin. This was called a “Blockade” dosage.

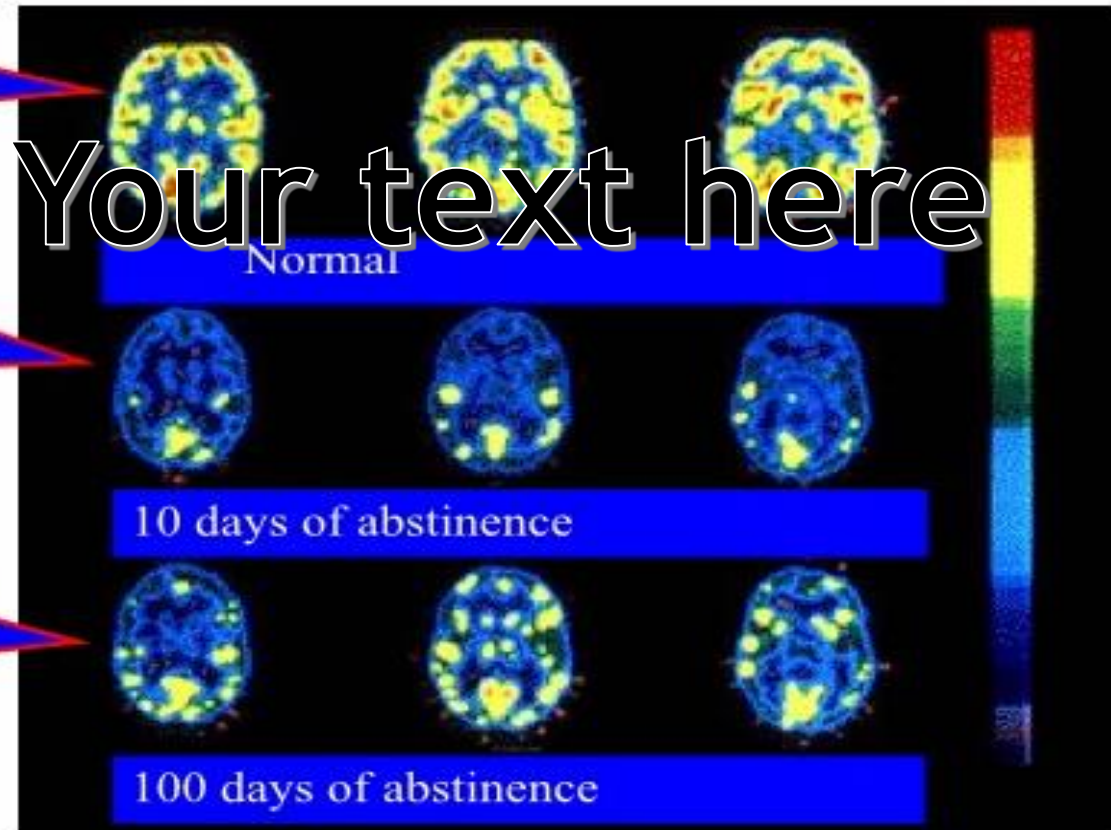
This worked since the patients tried to use heroin on top of methadone but soon found out that it did nothing for them except empty their wallets. 65 mgs. of liquid methadone hydrochloride is a small amount of medication to save a life, or more than one life when dealing with a pregnant opioid dependent mother and her unborn child.

Methadone was found to be a brain stabilizer and with a long half life tends to keep patients satiated for 24 to 30 hours. This was why the idea of methadone treatment programs seemed to be the answer for those dependent on Dilaudid, morphine, codeine, AND heroin. SEE BRAIN ON OPIOIDS.

Normal levels of brain activity in PET scans show up in yellow to red

Reduced brain activity after regular use can be seen even after 10 days of abstinence

After 100 days of abstinence, we can see brain activity “starting” to recover



Why Use Methadone?

There are three main reasons that people who are addicted to heroin use methadone—to quit heroin, to cope with pain, and to reduce the harm caused by injecting heroin.

As a treatment, methadone does not actually stop the opioid addiction; instead, it is a substitute for heroin. People who take methadone as prescribed are still dependent on opioids on a physical level, as the methadone blocks the opioid receptors in the brain that are usually blocked by heroin. This stops the craving that people feel for heroin when they have been taking it in large doses for a long time and prevents them from feeling ill from heroin withdrawal.

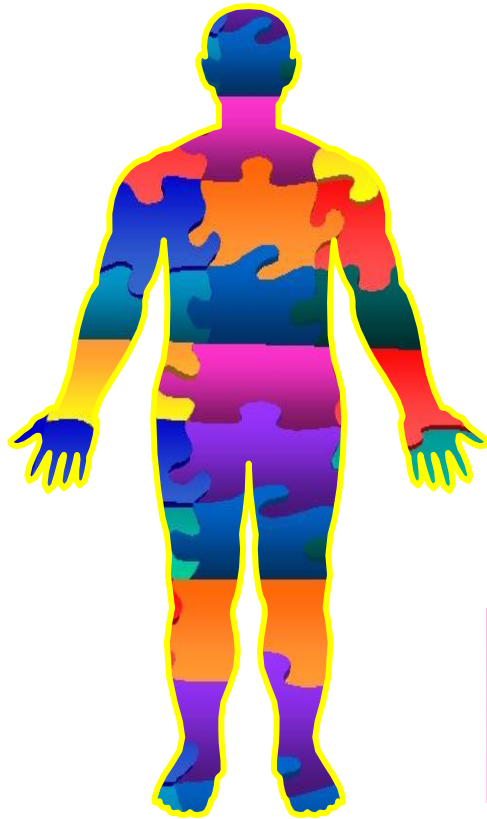
Methadone Then and Methadone Now

Methadone in the 1980's

- ▶ 9 OTPS in Ohio
- ▶ Doses were lower 40 mgs to 80 mgs.
- ▶ Drugs (Heroin and Pain Pills)
- ▶ Stigma existed
- ▶ Take homes were Sundays
- ▶ Not much Harm Reduction
- ▶ Long Waiting lists for Methadone

Methadone in the 2020's

- ▶ 92 OTPS in Ohio with 40 more waiting
- ▶ Doses range from 40mgs. To 300+
- ▶ Drugs (Fentanyl and Carfentanil)
- ▶ Stigma Still exists
- ▶ Up to 28 days Take Homes
- ▶ Harm Reduction utilized
- ▶ Few waiting lists for Methadone



- 1. Behavioral Therapies**
- 2. Medical Services**
- 3. Social Services**
- 4. Spiritual Well-Being**
- 5. Medication Assisted Treatment**

In the earlier years of **Methadone Treatment**, the dependence on heroin and other opioids was the focus. In 2021 the whole person is being treated.

Daily Methadone administration was developed to **mimic** the way a typical Heroin dependent person would handle their addiction.

1. A person would typically wake up early and have a “**wake up shot**” to get them going in the morning and start their day.
 2. If they did not have this early morning injection they would be in a panic and hit the streets trying to procure a hit of heroin.
 3. Methadone Treatment programs open very early **5-6 am** each morning and patients usually are there before the nurses.
- ❖ They receive their dosage in the morning and then are ready to face the day. Now this alone helps but does not fulfill the entirety of what true treatment is supposed to accomplish.
 - ❖ Getting off opioids is typically not hard, staying off is at times impossible.

A CHANGE IS GONNA COME- “IS IT THE CHANGE WE NEED?”

In 1998, at the AATOD conference in New York City the news was New York Mayor Rudolph Giuliani announced the end of methadone treatment programs in New York City within the next four years. Obviously, it did not happen, but many people were in fear that it may happen. Luckily, we had advocates like Mark Parino, President of AATOD and General Barry McAfferty, **The Former Director of the Office of National Drug Control Policy of the United States. He was the Keynote speaker in New York in 1998 and was totally against closing methadone treatment programs.**

Methadone has constantly had to fight for its place in the treatment lexicon for the United States. A constant struggle even when studies and outcomes support the use of methadone. This has changed very little in the past 23 years. People still do not want treatment programs where they reside. As Vincent Dole stated, “he feels treating a person with methadone is like treating a diabetic with insulin”.

The methadone treatment programs in the past typically rewarded those who remained compliant by

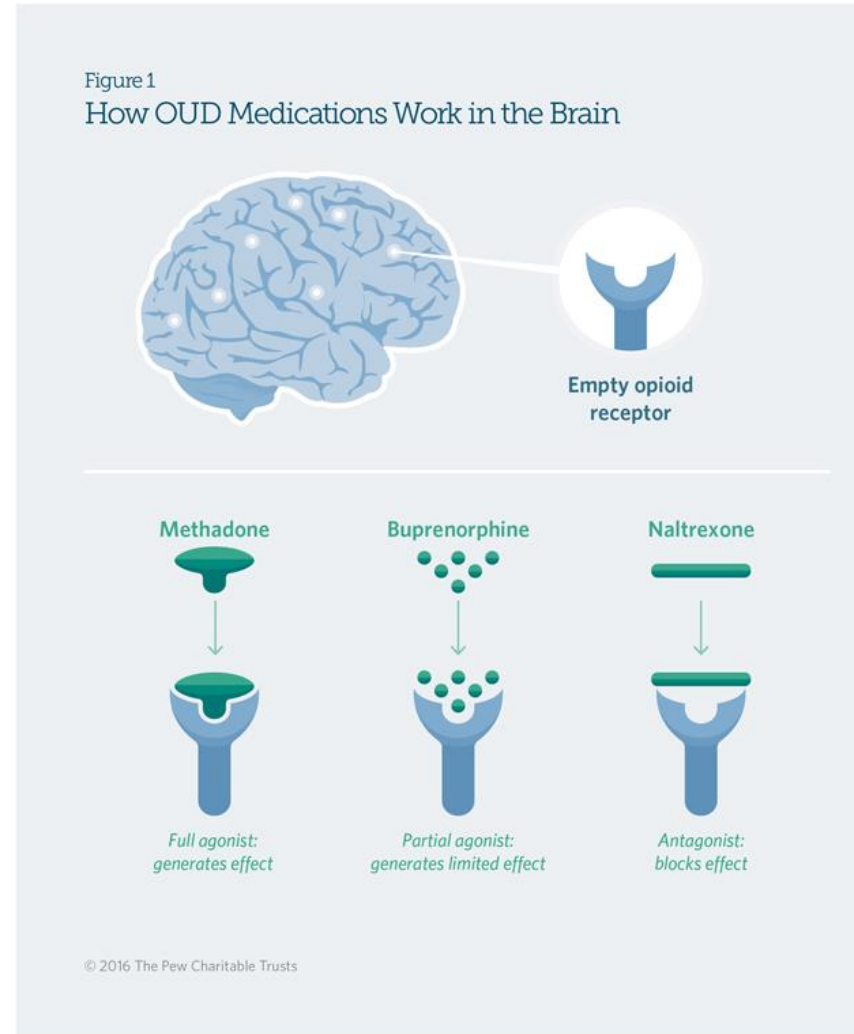
1. Medicating Daily
2. Visiting their individual counselor
3. Possibly attending group therapy by giving what was considered a “Take Home” dosage for Sunday. Most places back in the 1980’s and 1990’s only allowed weekend take home dosages. Treatment Programs were open 7 days a week 365 days a year. This punished the staff and did not allow for breaks in routines that became stagnant and intolerable at times.

HOW MAT WORKS: THREE DRUGS

Methadone is a daily liquid dispensed only in specialty regulated clinics called Opioid Treatment Providers or OTPs

Buprenorphine/Suboxone is a daily dispense or prescribed dissolving tablet or film

Naltrexone/Vivitrol is a daily pill or monthly injection; patients must have abstained from opioids for 7-10 days before receiving this medicine



The 2000's with MS Contin, and the pain being the 5th vital signs changes came from big Pharma and I do mean PHARMA, with the spread of Fentanyl and with the early introduction of the drug Oxycontin (also non-addictive. The drugs names had changed but the song remained the same. Oxycontin and Oxycodone were the new Heroin, but easier and cheaper to find. Pill Mills came into being and overdoses began to rise incrementally. People made a living out of procuring Opioids for others and Physicians became the new drug dealers. This went on until around 2014 when Fentanyl now took over as the Opioid that everyone wanted.

Fentanyl or Duragesic were used for terminal cancer patients and those suffering from severe pain problems. A company named INSYS began a campaign spreading Fentanyl like it was candy. Actually, they did have a Lollipop with Fentanyl. When pharmaceutical Fentanyl became more expensive China began to develop knock off Fentanyl and the elephant tranquilizer, CARFENTANIL.

- Fentanyl with a half life of 4 hours became the most dangerous injectable drug in the World.**
- Carfentanil also is 10,000 times more potent than morphine with a 7 hour half life.**

HISTORICAL TRANSITION OF OTP Care

Historically

- ▶ MAT options, especially in the OTP setting, considered a “last resort” for patients who had failed at multiple treatment attempts, often including detoxification and residential stays.
- ▶ Many patients seeking OTP treatment had decades-long history of illicit opioid use and treatment attempts.
- ▶ OTP treatment options primarily located in major cities and urban areas.

Presently

- ▶ MAT options, including the OTP setting, are considered a “first line” of treatment and a standard of practice in treating patients with OUD.
- ▶ Many patients seeking OTP care have no history of treatment and shorter history of opiate use. (One year of physiological dependency is still required in most cases.)
- ▶ Increase in available options of treatment for OUD, including OBOTs and increased number of OTPs throughout the state.

HISTORICAL TRANSITION OF OTP Care

Historically

- ▶ Many patients seeking OTP care classify themselves as IV heroin users.
- ▶ Majority of patients stabilize on 80-120 mg methadone as an average dose.
- ▶ Methadone considered gold standard for treating OUD during pregnancy.

Presently

- ▶ More patients seeking OTP care in response to pharmaceutical narcotic addiction or illicit fentanyl use.
- ▶ Some patients experience higher tolerances for opioids related to the strength of fentanyl and fentanyl analogues, leading to potential need for higher-than-average maintenance doses.
- ▶ New research suggests possibility that buprenorphine may be a better treatment option for OUD during pregnancy. Methadone remains the Gold Standard in 2021

Common MYTHS ABOUT Opioid Treatment Programs

- ▶ **MYTH - Crime rates go up in the neighborhoods where OTPs are located.**
 - ▶ Untreated opioid addiction is linked with high rates of illegal activity and incarceration, often related to the high cost of daily self-administration of narcotics to alleviate withdrawal symptoms.
 - ▶ Receiving effective treatment is associated with a reduction in rates of crime and illicit behaviors.
- ▶ **MYTH - Treating patients with medication assisted treatment in the OTP setting is not cost effective.**
 - ▶ Untreated opioid addiction is associated with high costs to the community in the form of overdose response in Emergency Departments and by police and rescue teams; drug-related car accidents; transmission of infectious diseases; hospitalization and treatment of infants who are born substance-affected, child welfare investigations and foster care placements; criminal justice system costs including incarceration, court costs and probation; and lost wages due to inability to work.
 - ▶ Average cost of managing OUD with methadone or buprenorphine in the OTP setting is between \$5,000-\$6,000 per year, comparable to the annual cost of managing other chronic diseases such as diabetes and kidney disease.
 - ▶ Of the estimated \$78 billion cost of the opioid epidemic in 2013, only 3.6% of that cost was for treatment.

Source - NIDA, Medications to Treat OUD Research Report (June 2018)

Source - SAMHSA, TIP 63 Medications for OUD (Updated 2020)

- 1. Methadone Treatment today is now being used to help with those dependent on Fentanyl and Meth Amphetamine.**
 - 2. Problem is there is no blockade dosage for Fentanyl using Methadone. This keeps the dependent Fentanyl patient from stopping his dependency on Fentanyl.**
 - 3. Patients are needing larger doses of methadone, and this is not guaranteed to work. Retention is similar but those wanting to stop fentanyl abuse are not doing it.**
-
- Fentanyl and Carfentanil have become the scourge of the Opioid using population and 95% of patients in the Midwest are Caucasian.**
 - Methadone does help and with out methadone the overdose rate would triple,. It has tripled and we see no stopping. Methadone still benefits our patients because they seem to slow down on daily or multiple times a day usage of fentanyl. The average dose today is from 80 to 120 with some doses going into the 200's.**

Methadone Treatment in Ohio in 2021 is at a crossroads. We now have 92 Opioid Treatment Programs but continue to have overdoses that continue to cause heartbreaks and devastation to families and patients.

The stigma and the problems of the 1960's through the 1990's still exist, and seem to be even worse now.

- **Methadone Treatment facilities are over regulated, under funded and the Federal and State standards have tied the hands of physicians. We are regulated by SAMHSA/CSAT, the State Board of Pharmacy, The Drug Enforcement Administration, Ohio Mental Health and Addiction Services Board, and an accrediting body such as The Joint Commission, CARF, or COA.**
- **The rules continue to become barriers to treatment. Providers who must abide by 30 to 40 different regulations from The Pharmacy Board and the DEA. They must abide by**

MYTHS ABOUT Opioid Treatment Programs

- ▶ ***MYTH - Opioid Treatment Programs are ineffective.***
 - ▶ Patients with OUD have historically been labeled as difficult to treat due to high rates of mortality and premature departure from abstinence-based treatment settings.
 - ▶ Receiving effective treatment with medication increases retention rates, prevents overdose, reduces transmission of HIV and Hepatitis C, and improves quality of life.
- ▶ ***MYTH - Patients taking methadone experience euphoria and are not truly “sober.”***
 - ▶ Patients who are physiologically dependent upon opioids who use methadone as prescribed do not experience euphoria. Rather, withdrawal symptoms and cravings are controlled making it possible for the individual to participate in activities such as school or work, childcare, operating a motor vehicle, and other activities that an individual without OUD might do in a typical day.

If the regulations are not enough oversight and rules are interpreted by the State Opioid Treatment Authorities arbitrarily and often wrong. Providers must maintain their programs with a dwindling work force. Only 50% of Data 2000 Waived Buprenorphine Physicians even practice due to the many regulations that they must follow.

With the many rule changes and strict oversight patients are not always given the easiest choice when it comes to methadone treatment. Positives: In the 1980's weekend take homes were the best that could be done. In 2021 most programs have a way for patients to earn up to 30-31 days a month of unsupervised take home medication. There are different phases or levels dependent on favorable urine drug screens and compliance with treatment. Most programs are now closed on Sundays and take homes are given. Patients continue in treatment, but less attendance helps them lead normal lives working and supporting their families.

- Many changes have occurred in the last 10 years but stronger opioids have flooded the market.
 - Fentanyl has caused many overdose deaths and ruined many families.
 - Methadone is still the Gold standard for those dependent on other opioids and still works for pregnant moms who are using opioids.
 - Many more programs with Certified Addiction Nurses and Certified Addiction Specialists who are both nurses and physicians help to guide patients struggling from Opioid Use Disorder.
-
- ❖ Though we seem to know more about Opioid Use Disorder today than 50 years ago, not much has changed in how our patients are treated. **Stigma** continues and although the AMA lists Opioid Use Disorder as a **“Brain Chemistry” DISEASE**. Is it really treated like “Diabetes”, “Obesity”, “Cancer” or other diseases? **“I think not”**.
 - ❖ Addiction Nurses and Physicians continue to be scrutinized and unbelievable regulations

Much has changed since the mid 1960's. and much more is known about treating Opioid Use disorder. The problem is that although change has come, we still find ourselves caught in a time warp where addiction and dependency to Opioids remains the same but so do barriers. One of the most regulated and scrutinized industries it needs to change.

❖ Methadone has been a blessing to countless people. Methadone saves lives. Diversion from licensed treatment programs is **very low** and overall, not a major street drug. Many families have been allowed the opportunity to become whole again with Medicated Assisted Treatment using methadone.

As we see today with the advent of new drugs for the treatment of: **Cancer, Diabetes, Hypertension, there is not much for Opioid Use Disorder. Methadone remains the Gold Standard, continuing to save lives, as it did in 1964 THEN and NOW.**

PCSS Mentoring Program

- PCSS Mentor Program is designed to offer general information to clinicians about evidence-based clinical practices in prescribing medications for opioid use disorder.
- PCSS Mentors are a national network of providers with expertise in **addictions, pain, evidence-based treatment including medications for opioid use disorder (MOUD)**.
- ▶ 3-tiered approach allows every mentor/mentee relationship to be unique and catered to the specific needs of the mentee.
- ▶ No cost.

For more information visit:

<https://pcssNOW.org/mentoring/>



PCSS Discussion Forum

Have a clinical question?



Ask a Colleague

A simple and direct way to receive an answer related to medications for opioid use disorder. Designed to provide a prompt response to simple practice-related questions.



<http://pcss.invisionzone.com/register>



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PCSS is a collaborative effort led by the American Academy of Addiction Psychiatry (AAAP) in partnership with:

Addiction Technology Transfer Center	American Society of Addiction Medicine
American Academy of Family Physicians	American Society for Pain Management Nursing
American Academy of Pain Medicine	Association for Multidisciplinary Education and Research in Substance use and Addiction
American Academy of Pediatrics	Council on Social Work Education
American Pharmacists Association	International Nurses Society on Addictions
American College of Emergency Physicians	National Association of Social Workers
American Dental Association	National Council for Mental Wellbeing
American Medical Association	The National Judicial College
American Osteopathic Academy of Addiction Medicine	Physician Assistant Education Association
American Psychiatric Association	Society for Academic Emergency Medicine
American Psychiatric Nurses Association	



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Educate. Train. Mentor



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