

# The Opioid Epidemic in our Midst: From 'out there' to 'right here'.

Amanda Gragg, LPC, SAC  
Lead Psychotherapist  
Aurora Behavioral Health Services

# Objectives and Goals

- Examine the current state of the opioid crisis and how it impacts our patients and practice.
- Examine the history and science behind opioid dependence.
- Identify where the opioid crisis is now and how it is being treated.
- List resources available at Aurora and in the community.

# Where are we now?

From 1999-2016, more than 350,000 people died from an overdose involving any opioid, including prescription and illicit opioids.<sup>2</sup>

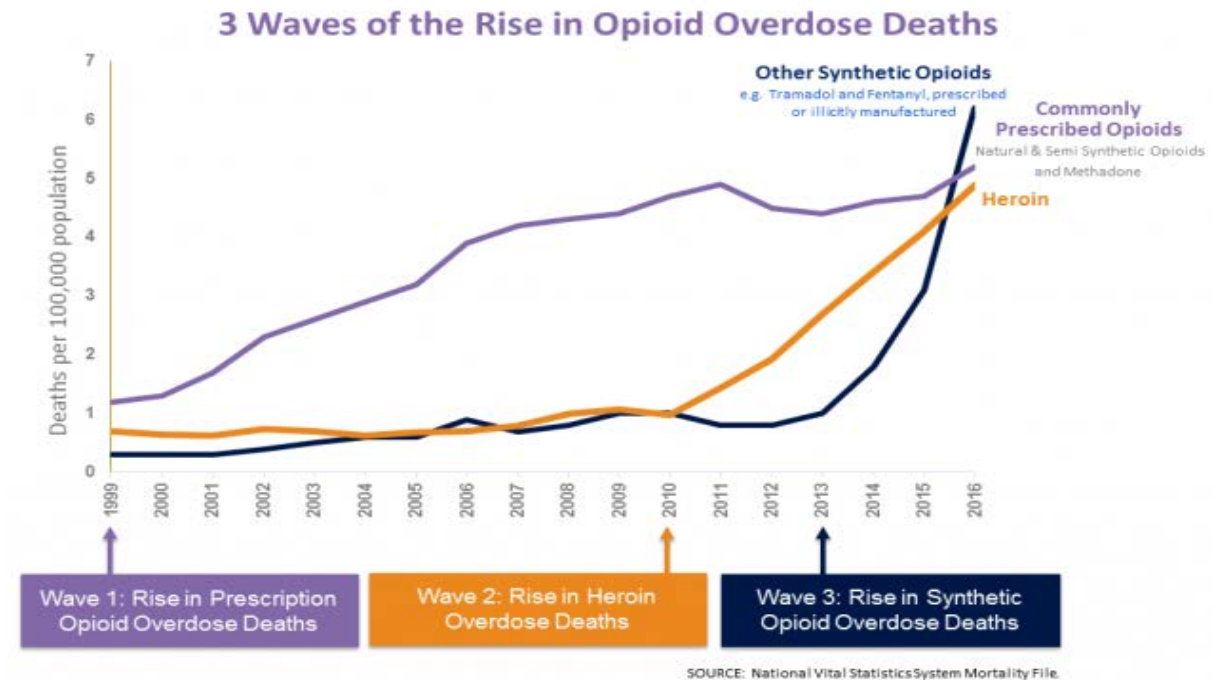
This rise in opioid overdose deaths can be outlined in three distinct waves.

The first wave began with increased prescribing of opioids in the 1990s<sup>3</sup>, with overdose deaths involving prescription opioids (natural and semi-synthetic opioids and methadone) increasing since at least 1999.

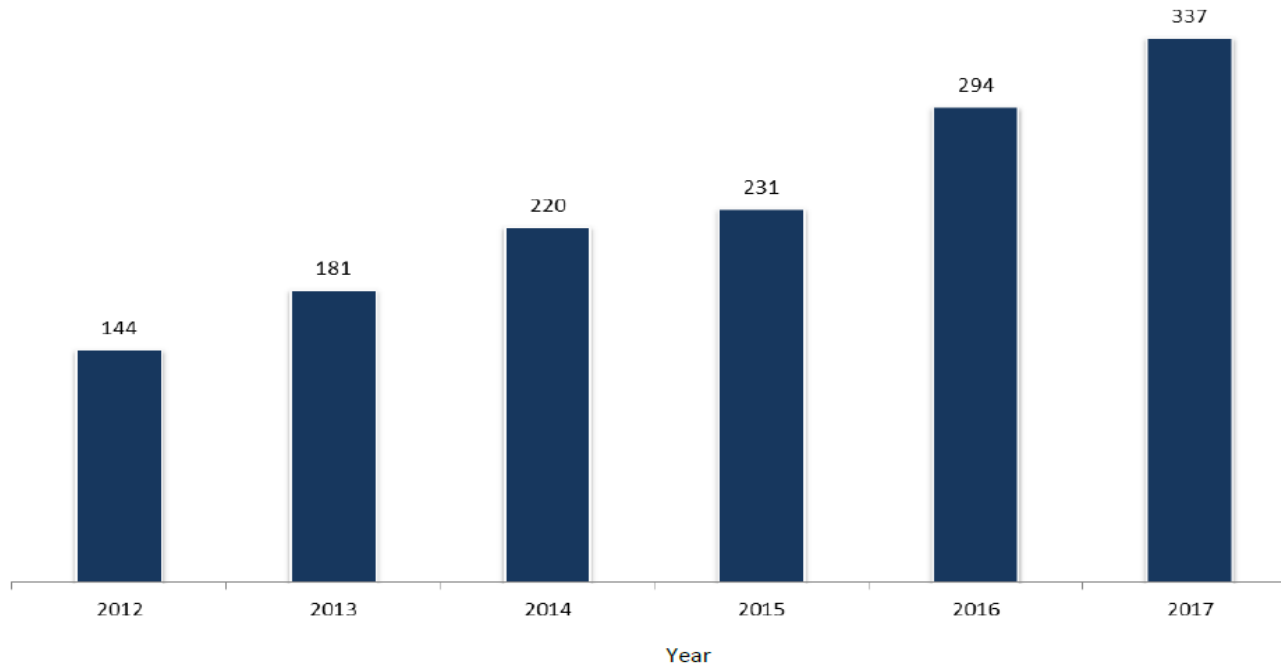
The second wave began in 2010, with rapid increases in overdose deaths involving heroin.

The third wave began in 2013, with significant increases in overdose deaths involving synthetic opioids – particularly those involving illicitly-manufactured fentanyl (IMF). The IMF market continues to change, and IMF can be found in combination with heroin, counterfeit pills, and cocaine.

<https://www.cdc.gov/drugoverdose/epidemic/index.html>



## Number of Opioid-Related Overdose Deaths 2012—2017 (N=1,407)



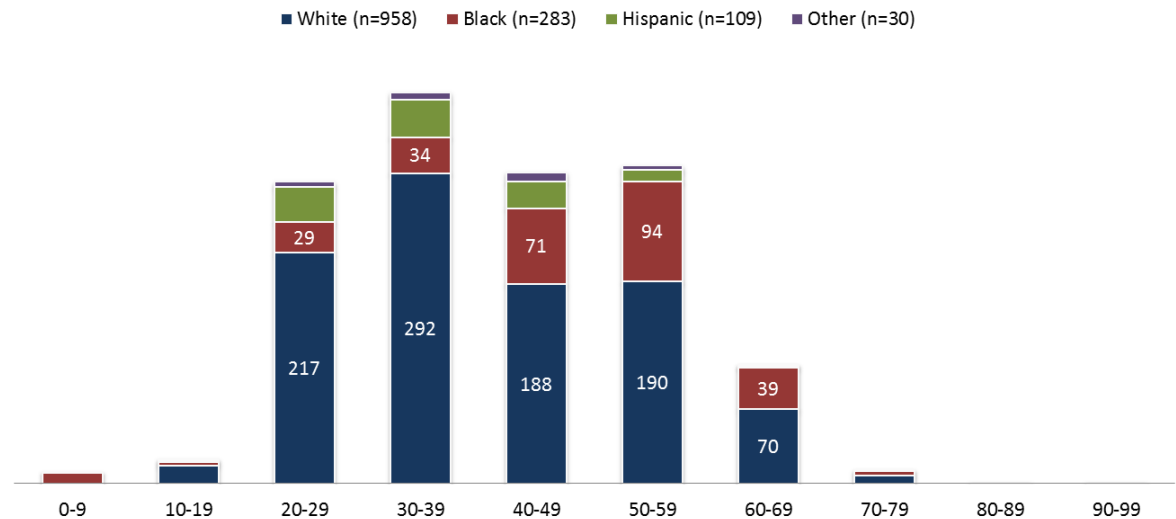
Opioid-related overdose deaths have more than doubled in Milwaukee County since 2012.

Data Source: Milwaukee County Medical Examiner – Opioid-related overdose deaths.

Version Release Date: 6.9.2018

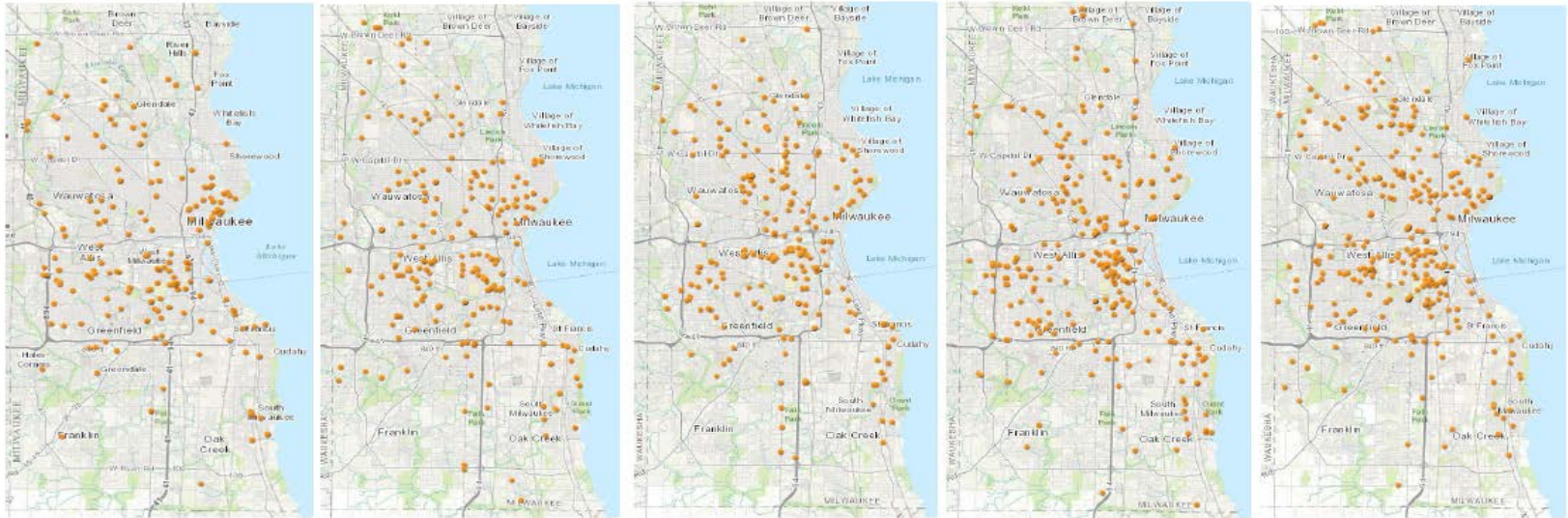
## Number of Opioid-Related Overdose Deaths by Age Range and Race/Ethnicity 2012–2017 (N=1,407)

While the age distribution of white overdose deaths mirrors the overall age distribution, deaths among black victims appears to skew older.



Data Source: Milwaukee County Medical Examiner – Opioid-related overdose deaths.

# Death Location for Opioid-Related Overdose Deaths in Milwaukee County 2014—2017



2013

2014

2015\*

2016

2017

Note: This map reflects the locations of the victim when they died. It may not reflect where the overdose occurred, especially for those treated at a hospital.



Data Source: Milwaukee County Medical Examiner – Opioid-related overdose deaths.

Version Release Date: 6.9.2018

\*One case in 2015 died outside of Milwaukee County

# 2018 National Prescription Rx and Heroin Summit Key Points

- <https://youtu.be/H7FnamSEWiU>
- MAT (medication assisted therapies) are the preferred method of treatment according to the head of the CDC (also NIDA and Surgeon General).
- <https://www.whitehouse.gov/articles/will-win-war-opioids/>
- Fentanyl testing strips being introduced.
- 65,000 deaths in 2016.
- Jail diversion programs.
- Estimated peak in 2020.

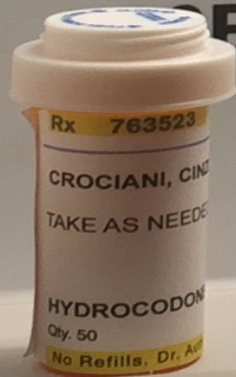
**AMERICANS CONSUME 99.7%**  
**OF THE WORLD'S HYDROCODONE SUPPLY.**

- INTERNATIONAL NARCOTICS  
CONTROL BOARD

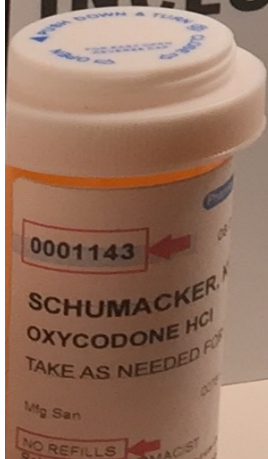
STUDIES HAVE SHOWN  
D MORE EFFECTIVE  
MEDICATIONS FOR A  
E  
MINOPHEN AN



**STUDIES HAVE SHOWN THAT OPIOIDS ARE  
NO MORE EFFECTIVE THAN OVER-THE-COUNTER  
MEDICATIONS FOR ACUTE PAIN. IN FACT,  
THE MOST EFFECTIVE PAIN RELIEF IS TAKING  
ACETAMINOPHEN AND IBUPROFEN.**



UNFORTUNATELY, 33% OF PAINKILLER ~~USERS~~  
DON'T KNOW THEY'RE TAKING OPIOIDS. COMMON  
INCLUDE HYDROCODONE, OXYCODONE AND VICOD





**THE DIFFERENCE BETWEEN THE AMOUNT  
NEEDED TO FEEL THEIR EFFECTS AND THE  
AMOUNT NEEDED TO KILL A PERSON IS  
SMALL AND UNPREDICTABLE.**





**EVERY 24 MINUTES,  
THIS MACHINE CARVES A NEW FACE. BECAUSE  
EVERY 24 MINUTES ANOTHER AMERICAN DIES  
FROM A PRESCRIPTION OPIOID OVERDOSE.**

-CENTERS FOR DISEASE CONTROL AND  
PREVENTION, NATIONAL CENTER FOR  
HEALTH STATISTICS.



# THE PILL WALL

EACH YEAR, 22,000 AMERICANS DIE FROM A PRESCRIPTION OPIOID OVERDOSE.

THESE 22,000 PILLS ARE CARVED WITH THE FACES OF THE PRESCRIPTION OPIOID CRISIS.

- CENTERS FOR DISEASE CONTROL AND PREVENTION, NATIONAL CENTER FOR HEALTH STATISTICS.











A grid of 100 small, identical portraits of a woman's face, arranged in 10 rows and 10 columns. The portraits are set against a solid black background. The woman has dark hair and is looking directly at the camera with a neutral expression. The name "MICHELLE" is printed in a bold, grey, sans-serif font, centered horizontally and vertically over the grid.

**MICHELLE**



A black perforated metal sheet with a grid of circular holes. The word "CAMERON" is printed in the center in a light gray, sans-serif font. The sheet is slightly wrinkled and has rounded corners.

CAMERON

# How did we get here?

- **Early 1900's Civil War veterans addicted to morphine**
- **1898: Bayer created heroin as a cough suppressant**
- **1914: The Harrison Narcotics Tax Act imposed a tax on those making, importing or selling any derivative of opium or coca leaves**
- **1924: Heroin illegal**
- **1937: Methadone developed by Germans for pain control in war**
- **1947: Eli Lilly markets methadone as an analgesic**
- **1960-70: Methadone used for heroin addiction without research (methadone OD common)**
- **1970: Buprenorphine developed as an injectable pain medication (to reduce dependence)**
- **1972: Nixon limits treatment with methadone to Opioid Treatment Programs**
- **Late 1970's Percocet and Vicodin hit market, studies come out that it's not addictive**
- **1996 OxyContin hits the markets ("abuse deterrent" in 2010)**
- **1990-2000: NIDA requests addition of naloxone to reduce chance of diversion**
- **2002: FDA approves bup/naloxone for office based therapy; requires specific training and specific DEA**
- **2010-2011 "It was clearly the wrong thing to do."**
- <https://www.cnn.com/2016/05/12/health/opioid-addiction-history/index.html>

# Types of opiates/opioids

- Opiates originate from naturally-occurring alkaloids found in the opium poppy plant. These drugs are best known for their ability to relieve pain symptoms. This property originates from the plant alkaloids. Opiate drug types include heroin, opium, morphine and codeine.
- While similar to opiates, opioids are actually synthetic drugs that produce opiate-like effects, according to a Yale University report. So when comparing opiate vs. opioid, both substances produce pain-killing effects.
- <http://opium.com/derivatives/opiate-vs-opioid-whats-difference/>

# Heroin

- Heroin – An illegal, highly addictive opioid drug processed from morphine.
- Types of heroin
  - White heroin-The most pure sources of heroin can sometimes be found on the illicit market in white powdered form. This white powder commonly has a high degree of acidity . Despite common perception, it doesn't necessarily indicate purity. In fact, it is not uncommon for heroin to be cut with an additive substance, which can alter the color of the compound. "China White" is a term that can refer to pure heroin, heroin cut with fentanyl, or just fentanyl (which is 50-100 times more potent than morphine). In the past, the term referred to heroin. But it has also been used recently to refer to heroin cut with fentanyl, which has led to a number of deaths. Finally, China White has also been used to refer to pure fentanyl, which is sometimes sold as heroin.
  - Brown heroin-Brown heroin is a coarse, powdered form of heroin with poor water solubility. Most people smoke brown heroin by putting it on aluminum foil, heating the foil until the drug vaporizes, then inhaling the vapors through a straw or tube. This method is known as "chasing the dragon."
  - Tar heroin-Black tar heroin tends to be sticky like roofing tar or coal. Its color is a result of the relatively crude manufacturing processes that leave impurities in the final product. It is mainly produced in Mexico and found west of the Mississippi River. At purity levels typically no higher than 25-30%, black tar heroin is traditionally less pure. Impure heroin varieties such as black tar are most commonly injected
- What are the Different Ways of Using Heroin?
- Smoking heroin.
  - Mixing heroin with water or other liquids allows it to be smoked through a pipe. When you mix heroine and cocaine and you can go "freebasing"— a form of smoking both drugs.
- Shooting heroin.
  - Injecting heroin into the bloodstream is perhaps the most dangerous way of using heroin. IV heroin use delivers the strongest high, but can also lead to the transmission of several potential deadly diseases. Heroin addicts who share dirty needles are at a great risk for HIV / AIDS as well as certain strains of Hepatitis.
- Snorting heroin.
  - When crushed into powder form, heroin can be snorted through the nose much in the same way cocaine is used. Snorting heroin delivers an impactful high, although not quite as fast acting as shooting or smoking heroin. Some people have died of a heroin overdose when they mistakenly snort heroin, thinking it is cocaine.
  - <https://heroin.net/types-of-heroin/>

# The most common types of opiate/opioid painkillers

- **Hydrocodone** (Vicodin or Lortab)
- **Oxycodone** (OxyContin, Roxicodone, Percodan, Percocet)
- **Hydromorphone** (Dilaudid)
- **Morphine**
- **Codeine**
- **Fentanyl** (Duragesic, Actiq, Sublimaze)
- **Methadone** (Dolophine)
- **Buprenorphine** (Buprenex, Suboxone)



# Prescriptions

- After a steady increase in the overall national opioid prescribing rate starting in 2006, the total number of prescriptions dispensed peaked in 2012 at more than 255 million and a prescribing rate of 81.3 prescriptions per 100 persons.
- The overall national opioid prescribing rate declined from 2012 to 2017, and in 2017, the prescribing rate had fallen to the lowest it had been in more than 10 years at 58.7 prescriptions per 100 persons (total of more than 191 million total opioid prescriptions).
- However, in 2017, prescribing rates continue to remain very high in certain areas across the country.
  - In 16% of U.S. counties, enough opioid prescriptions were dispensed for every person to have one.
  - While the overall opioid prescribing rate in 2017 was 58.7 prescriptions per 100 people, some counties had rates that were seven times higher than that.
- **Opioid analgesics** – Commonly referred to as **prescription opioids**, medications that have been used to treat moderate to severe pain in some patients. Categories of opioids for mortality data include:
  - **Natural opioid analgesics**, including morphine and codeine;
  - **Semi-synthetic opioid analgesics**, including drugs such as oxycodone, hydrocodone, hydromorphone, and oxymorphone;
  - **Methadone**, a synthetic opioid;
  - **Synthetic opioid analgesics** other than methadone, including drugs such as tramadol and fentanyl.
- <https://www.cdc.gov/drugoverdose/maps/rxrate-maps.html>

# How did we get here? (cont)

**Table 1. Total number and rate of opioid prescriptions dispensed, United States, 2006–2016**

Year	Total Number of Prescriptions	Prescribing Rate Per 100 Persons
2006	215,917,663	72.4
2007	228,543,773	75.9
2008	237,860,213	78.2
2009	243,738,090	79.5
2010	251,088,904	81.2
2011	252,167,963	80.9
2012	255,207,954	81.3
2013	247,090,443	78.1
2014	240,993,021	75.6
2015	226,819,924	70.6
2016	214,881,622	66.5
2017	191,218,272	58.7

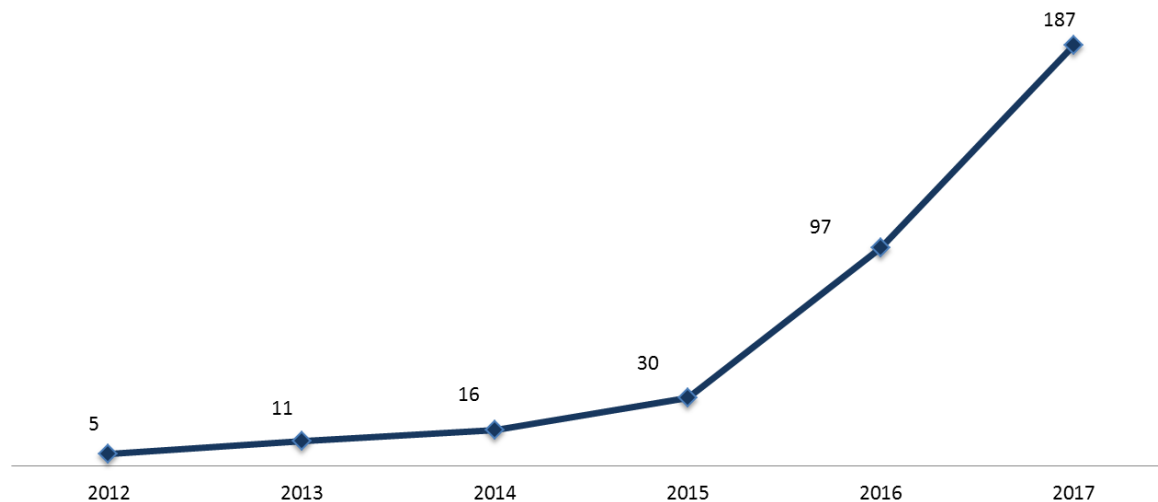
# Fentanyl

- Fentanyl is a synthetic (man-made) opioid 50 times more potent than heroin and 100 times more potent than morphine. There are two types of fentanyl:
  - Pharmaceutical fentanyl is primarily prescribed to manage severe pain, such as with cancer and end-of-life palliative care.
  - Non-pharmaceutical fentanyl is frequently referred to as illicitly manufactured fentanyl (IMF). IMF is often mixed with heroin and/or cocaine or pressed into counterfeit pills—with or without the user's knowledge.
  - Most dealers don't know that their heroin is laced, leading to overdoses.
  - Finding fentanyl traces on marijuana.
- <https://www.cdc.gov/drugoverdose/data/fentanyl.html>



## Number of Overdose Deaths Where Fentanyl was Attributed as a Cause of Death Alone or In Combination with Other Drugs (N=1,407) 2012–2017

Of the 337 opioid-related overdose deaths in 2017, 55% (187) involved the drug fentanyl, compared to 33% in 2016. Only 22 deaths involved fentanyl alone, the remaining were in combination with other drugs.



Data Source: Milwaukee County Medical Examiner – Opioid-related overdose deaths.

# How do we treat this?

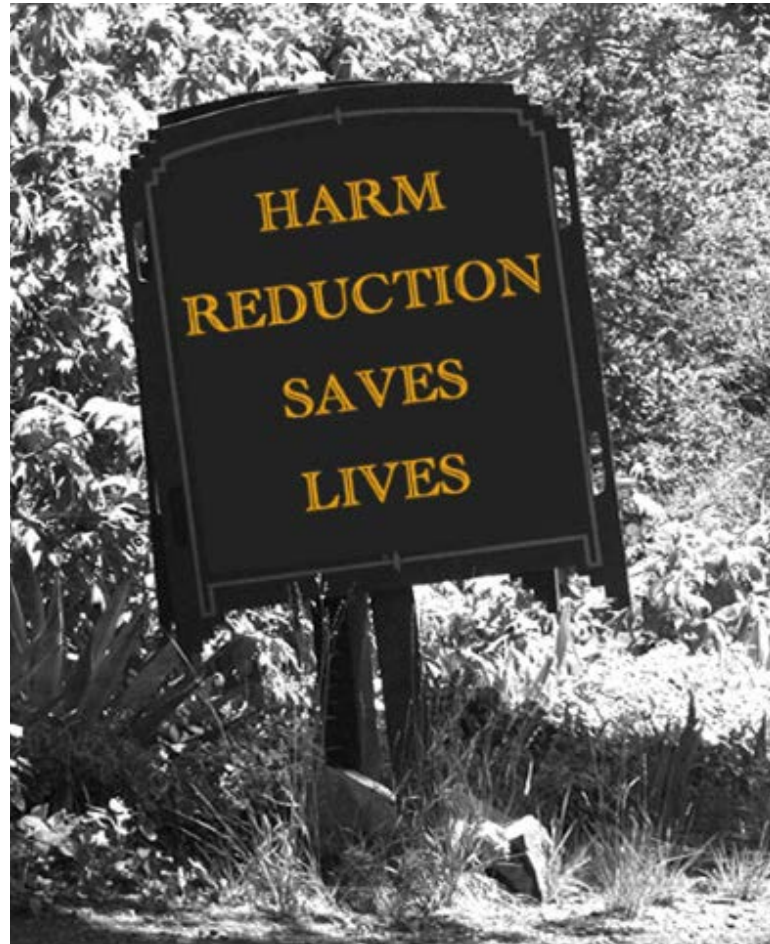
Detoxification

Methadone

Buprenorphine

(±Naloxone)

Naltrexone



# Why not detoxification?

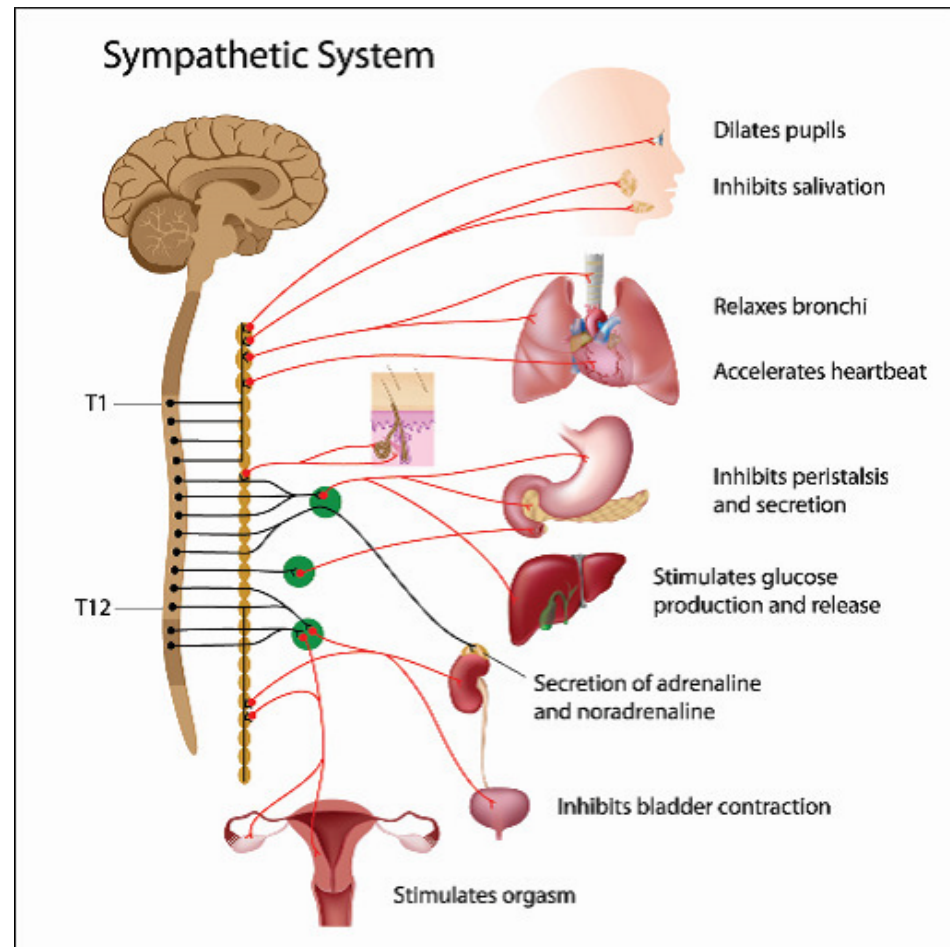
- Withdrawal is painful, commonly leading back to use.
- Most insurances do not cover inpatient detox because opiate withdrawal is not considered fatal, therefore does not require inpatient.
- Plenty of treatment facilities available, for the right price.
- Jail/prison the “affordable” treatment facility.
- Overdose rates after release from inpatient or jails at highest.

Follow-up interviews were conducted with 109 patients, of whom, 99 (91%) reported a relapse. The initial relapse occurred within one week in 64 (59%) cases.

<https://www.ncbi.nlm.nih.gov/pubmed/20669601>

# Acute opioid withdrawal: Acute sympathetic nervous system overactivity

- Opioid use initially suppresses the sympathetic nervous system
- As tolerance develops, the sympathetic system is “ramped up” to function normally in the presence of opioids
- If opioids are abruptly withdrawn, the sympathetic nervous system is OVER active



### Stage I: Up to 8 hours



Anxiety



Drug craving

### Stage II: 8–24 hours



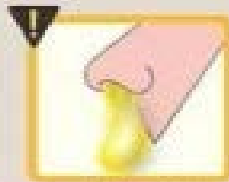
Anxiety



Insomnia



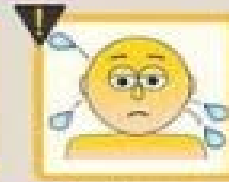
GI Disturbance



Rhinorrhea



Myriasis



Diaphoresis

### Stage III: Up to 3 days



Tachycardia



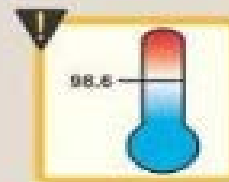
Nausea, vomiting



Hypertension



Diarrhea



Fever



Chills



Tremors



Seizure



Muscle spasms

# Methadone

- Methadone works by changing how the brain and nervous system respond to pain. It lessens the painful symptoms of opiate withdrawal and blocks the euphoric effects of opiate drugs such as heroin, morphine, and codeine, as well as semi-synthetic opioids like oxycodone and hydrocodone.
- Methadone is offered in pill, liquid, and wafer forms and is taken once a day. Pain relief from a dose of methadone lasts about four to eight hours.
- Patients taking methadone to treat opioid addiction must receive the medication under the supervision of a physician. After a period of stability (based on progress and proven, consistent compliance with the medication dosage), patients may be allowed to take methadone at home between program visits. By law, methadone can only be dispensed through an opioid treatment program certified by SAMHSA.
- The length of time in methadone treatment varies from person to person. According to the National Institute on Drug Abuse publication Principles of Drug Addiction Treatment: A Research-Based Guide – 2012, the length of methadone treatment should be a minimum of 12 months. Some patients may require treatment for years.
- Higher doses tend to be more effective, no “ceiling effect”.
- Can be addictive, patients can get “high” from doses.
- Methadone, as a full opioid agonist, continues to produce effects on the receptors until either all receptors are fully activated, or the maximum effect is reached.
- <https://www.samhsa.gov/medication-assisted-treatment/treatment/methadone>

# Buprenorphine/Naloxone (Suboxone)

- Suboxone is a combination drug comprised of two substances:
  - Buprenorphine—a partial opioid agonist with a "ceiling effect" that keeps effects from increasing past a certain dose.
  - Naloxone—an opiate antagonist used to reverse or block the effects of opiates in someone's system.
- Suboxone can decrease cravings and withdrawal symptoms will limit withdrawal symptoms and decrease the frequency and intensity of cravings.
- Commonly in film form, dissolves on tongue.

# “It’s just replacing one drug for another...”

## **A Day in the Life of a Heroin Addict**

November 11, 2017

How did my days go? Well, I’d wake up each morning, that is if I even got sleep the night before, which was doubtful unless I had as much heroin as I needed, which never seemed to happen. I tried to never have less than two bundles (*each bundle has approximately 1-1.5 grams of heroin in it, a collection of 10 bags, varying some state to state*) on me at all times, but that was pretty unsuccessful. I’d spend all night blowing up my dealer’s phone. Then the misery, sickness and insanity of withdrawal would set in. Then I’d drive the 1.5 hours round-trip distance from Morristown to Paterson (*both cities in New Jersey*) to buy a brick (*5 bundles, or 50 bags*), which would only last me two days max.

I would have to turn the GPS off my phone when I was making those trips to Paterson. My parents could see where I was with the Find My iPhone App and if they saw that I was in Paterson, they’d know that I was buying heroin and there’d be trouble. So on the way back from buying heroin, I’d pull off to the side of route 80 in the shoulder and shoot 7 bags right there to stop withdrawing, then I’d race back home while nodding out on the highway, frequently waking up while I was driving, which was incredibly scary.

When I got home, I’d do another 3-5 bags, smoke cigarettes, watching netflix alone in my room all day. I was incredibly sad and lonely and my life was going nowhere. I felt close to no one, I’d steal from my parents- not even when I needed money, just in anticipation that I would need it soon. I also sold heroin to get mine for free. Everything I did was for or in pursuit of heroin. I only left my room to sell or buy drugs.

I had a horrible job in the fast food industry, horrible hygiene, horrible relationships with my family and horrible mental health- I had a really bad temper and abysmal self-esteem.

- <http://recoverycarepartner.com/day-life-heroin-addict/>



# An Aurora Story

- Using:
  - wake up sick and have to use first thing to get energy
  - go to work, less motivation at work and had to give my all
  - really sleepy at work a lot of the time, even hard to keep my eyes open at my desk and would go home on break to take a nap
  - was using in the bathroom at work, sometimes had to take breaks from work to get more and just generally felt bad about myself for it
  - lots of ups and downs emotionally (numb to really emotional)
  - sick all the time
  - spending all my money including money saved for retirement and paying bills late or not paying them at all
  - after getting home from work would just make dinner and spend time sitting around and/or using
  - going from having no energy to a lot (lots of ups and downs)
  - dealing with stress of buying more and not having enough and always worrying about it
  - hiding from friends and family
  - feelings of hopelessness and not looking forward to the future
- On Suboxone:
  - wake up and don't feel sick (take my medication in the morning, but not spending a lot of time in my day dealing with it)
  - much more motivated at work, higher performance ratings and up for promotion
  - have money to spend on extra things and able to pay the bills
  - able to go on vacations and go out to eat and other things I enjoy doing
  - starting to save money again
  - not tired all the time, more energy (not drastic ups and downs)
  - motivated to get exercise and go on walks with my dogs
  - feel confident in becoming a mother and being able to provide a good support system for my child
  - better relationships with friends and family
  - looking forward to the future

# Naltrexone

- It comes in a pill form or as an injectable. The pill form of naltrexone (ReVia, Depade) can be taken at 50 mg once per day. The injectable extended-release form of the drug (Vivitrol) is administered at 380 mg intramuscular once a month. Naltrexone can be prescribed by any health care provider who is licensed to prescribe medications. To reduce the risk of precipitated withdrawal, patients are warned to abstain from illegal opioids and opioid medication for a minimum of 7-10 days before starting naltrexone.
- Naltrexone blocks the euphoric and sedative effects of drugs such as heroin, morphine, and codeine. It works differently in the body than buprenorphine and methadone, which activate opioid receptors in the body that suppress cravings. Naltrexone binds and blocks opioid receptors, and is reported to reduce opioid cravings. There is no abuse and diversion potential with naltrexone.
- If a person relapses and uses the problem drug, naltrexone prevents the feeling of getting high.
- Patients on naltrexone may have reduced tolerance to opioids and may be unaware of their potential sensitivity to the same, or lower, doses of opioids that they used to take. If patients who are treated with naltrexone relapse after a period of abstinence, it is possible that the dosage of opioid that was previously used may have life-threatening consequences, including respiratory arrest and circulatory collapse.
- <https://www.samhsa.gov/medication-assisted-treatment/treatment/naltrexone>

# Naloxone (Narcan)

- Narcan Nasal Spray is indicated for the emergency treatment of known or suspected opioid overdose, as manifested by respiratory and/or central nervous system depression.
- Narcan Nasal Spray is intended for immediate administration as emergency therapy in settings where opioids may be present.
- Narcan Nasal Spray is not a substitute for emergency medical care.
- Every clinic should have them. Emergency response professionals carry them.
- Causes immediate opiate withdrawal.
- <https://www.vox.com/policy-and-politics/2018/4/5/17201928/surgeon-general-opioid-crisis-naloxone>
- <https://www.drugs.com/pro/narcan.html>

# Not all withdrawal is the same

Different opioids have  
different onset

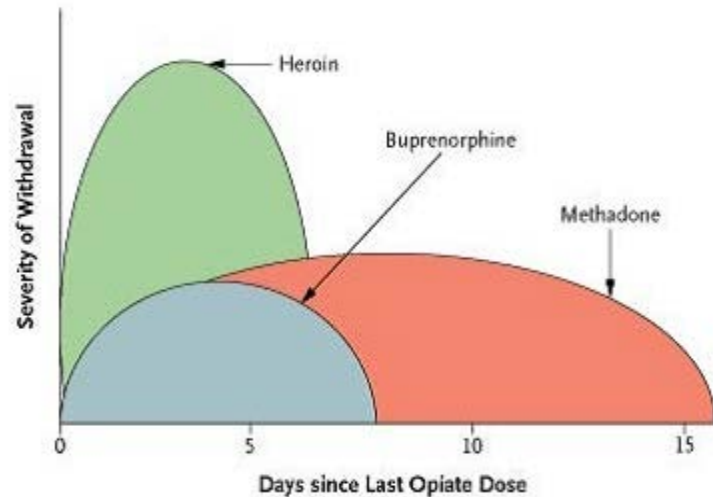
and severity of  
withdrawal:

Heroin, oxycodone: short  
and intense

Methadone: drags on

Buprenorphine: not as  
long or intense but still  
uncomfortable

Difference in methadone  
vs buprenorphine: You can  
see that starting  
buprenorphine with mild  
withdrawal effects from  
methadone might  
precipitate withdrawal.



N Engl J Med 2003; 348:1786-1795

DOI: 10.1056/NEJMra020617

# How do people get help?

- Insurance plays a big role.
- Residential treatment anywhere from \$10,000-\$20,000, insurance does not typically cover.
- Outpatient varies, depending on what insurance pays. Higher levels of outpatient care \$1,000+. Insurance can deny if patient is currently sober.
- ER may treat for direct sx, but likely will not keep or send to inpatient, withdrawals not considered life threatening.
- Outpatient psychotherapy hard when actively using.

# Who can prescribe MAT or provide therapy?

- On October 17, 2000, Congress passed the Drug Addiction Treatment Act (DATA) which permits qualified physicians to treat narcotic dependence with schedules III-V narcotic controlled substances that have been approved by the Food and Drug Administration (FDA) for that indication.
- The legislation waives the requirement for obtaining a separate Drug Enforcement Administration (DEA) registration as a Narcotic Treatment Program (NTP) for qualified physicians administering, dispensing, and prescribing these specific FDA approved controlled substances. Physicians registered with the DEA as practitioners who apply and are qualified pursuant to DATA are issued a waiver (DWP) and will be authorized to conduct maintenance and detoxification treatment using specifically approved schedule III, IV, or V narcotic medications. 8hrs of extra training are required.
- DATA waived physicians may treat 30 or 100 patients at any one time, dependent on individual authorization from the Center for Substance Abuse Treatment (CSAT).  
[https://www.deadiversion.usdoj.gov/pubs/docs/dwp\\_buprenorphine.htm](https://www.deadiversion.usdoj.gov/pubs/docs/dwp_buprenorphine.htm)
- 2017 Assembly Bill 907 (attached) allows professionals with a mental health license to see AODA patients. Used to be prohibited to only those with a substance abuse license, but the demand was too high.

# What is in house?

- **Opiate Recovery Program (ORP)**

- Part of Dewey Center at the Aurora Psychiatrist Hospital in Wauwatosa.
- Suboxone program.
- Residential, Partial Hospitalization Program (PHP), Intensive Outpatient (IOP).
- Psychiatrist to continue to prescribe MAT.
- Referral to psychotherapist.
- On site community support groups.

- **Maternal Addiction Recovery Center (MARC)**

- Provides prenatal care and MAT to pregnant females at high risk pregnancy office at Sinai location.
- Weekly psychoeducational AODA groups as well as individual psychotherapy.
- Social worker to provide community supports to those in need.
- Refer to ORP once done with program.

# Are community support groups worth it?

- AA forbids clinical research on their members, but provided **this**: According to AA, 33 percent of the 8,000 North American members it surveyed had remained sober for over 10 years. Twelve percent were sober for 5 to 10 years; 24 percent were sober 1 to 5 years; and 31 percent were sober for less than a year. <https://www.thefix.com/content/the-real-statistics-of-aa7301>
- Many different types of support groups: Anonymous 12 step, SMART Recovery, SOS, Celebrate Recovery.
- Offered online, conference calls, in person.
- Sponsorship provides extended support beyond office hours.
- Help from people who have “been there”.



# Where can we go?

- Milwaukee Community Resources for the Prevention of Opioid-Related Overdose and Opioid Use Disorder (attached handout)
- Responding to Addiction and Overdose (attached handout)
- <https://www.springgreen.org/chasing-hope/> (youth education)
- Opiate Recovery Program (Dewey) (attached handout)
- 211
- Insurance
- Most major hospital systems in Wisconsin have a program.

# A New Hope

- It's important to acknowledge that this is largely a medical field induced problem.
- No one is immune, no matter gender, race, economic situation.
- Focus on educating, not judging.
- <https://www.baldwin.senate.gov/press-releases/baldwin-reforms-pass-senate-with-overwhelming-bipartisan-support>
- If you don't know, ask!
- amanda.gragg@auora.org