Medication Assisted Treatment for Substance Use Disorders, Telemedicine and the Opioid Crisis in Colorado

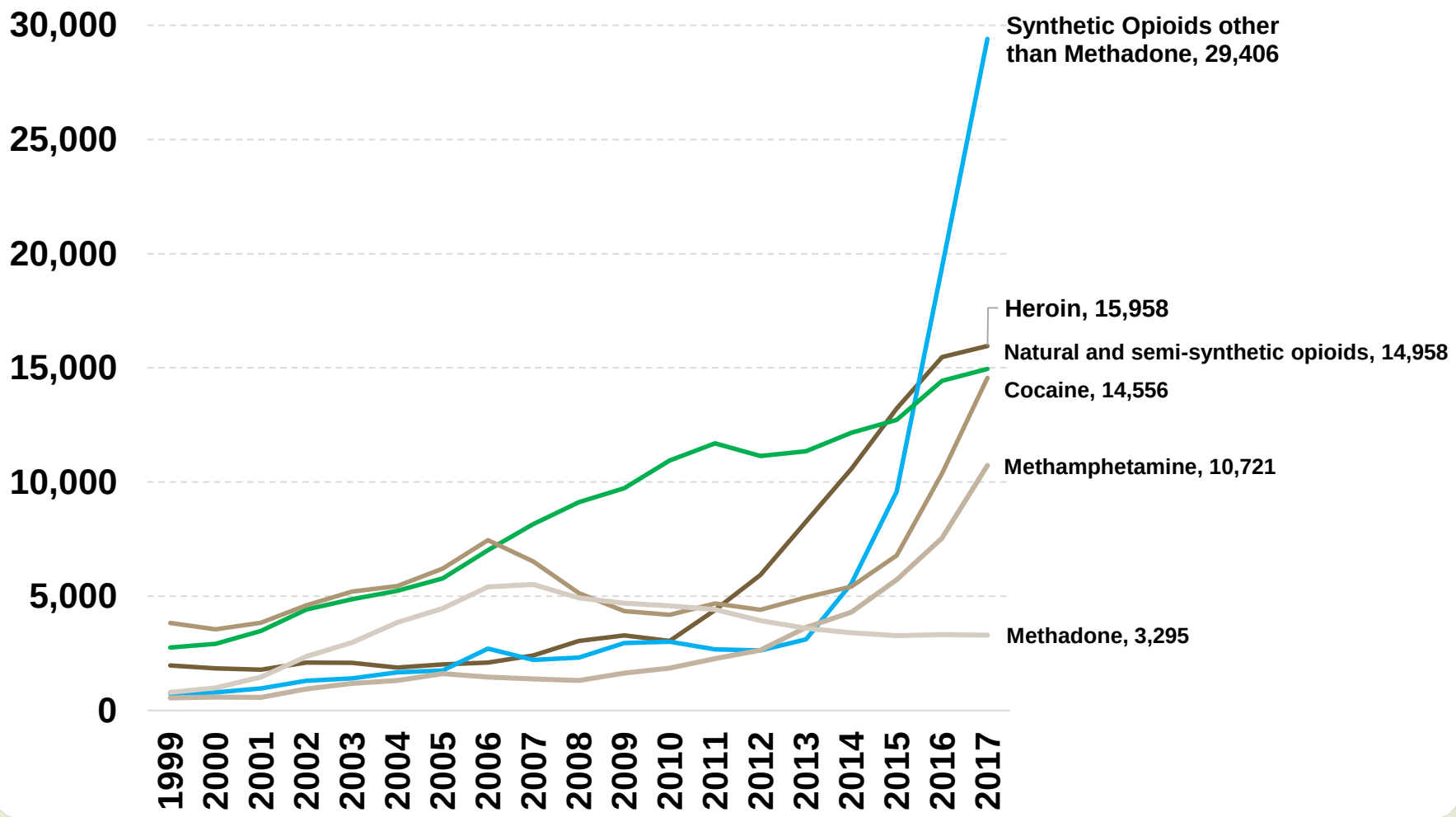
Colorado Addiction Treatment Services Inc (CATS Inc)

Opioid Epidemic

- In 2016, there were 536 opioid-related overdose deaths in Colorado, a rate of 9.5 deaths per 100,000 persons compared to the national rate of 13.3 deaths per 100,000 persons.

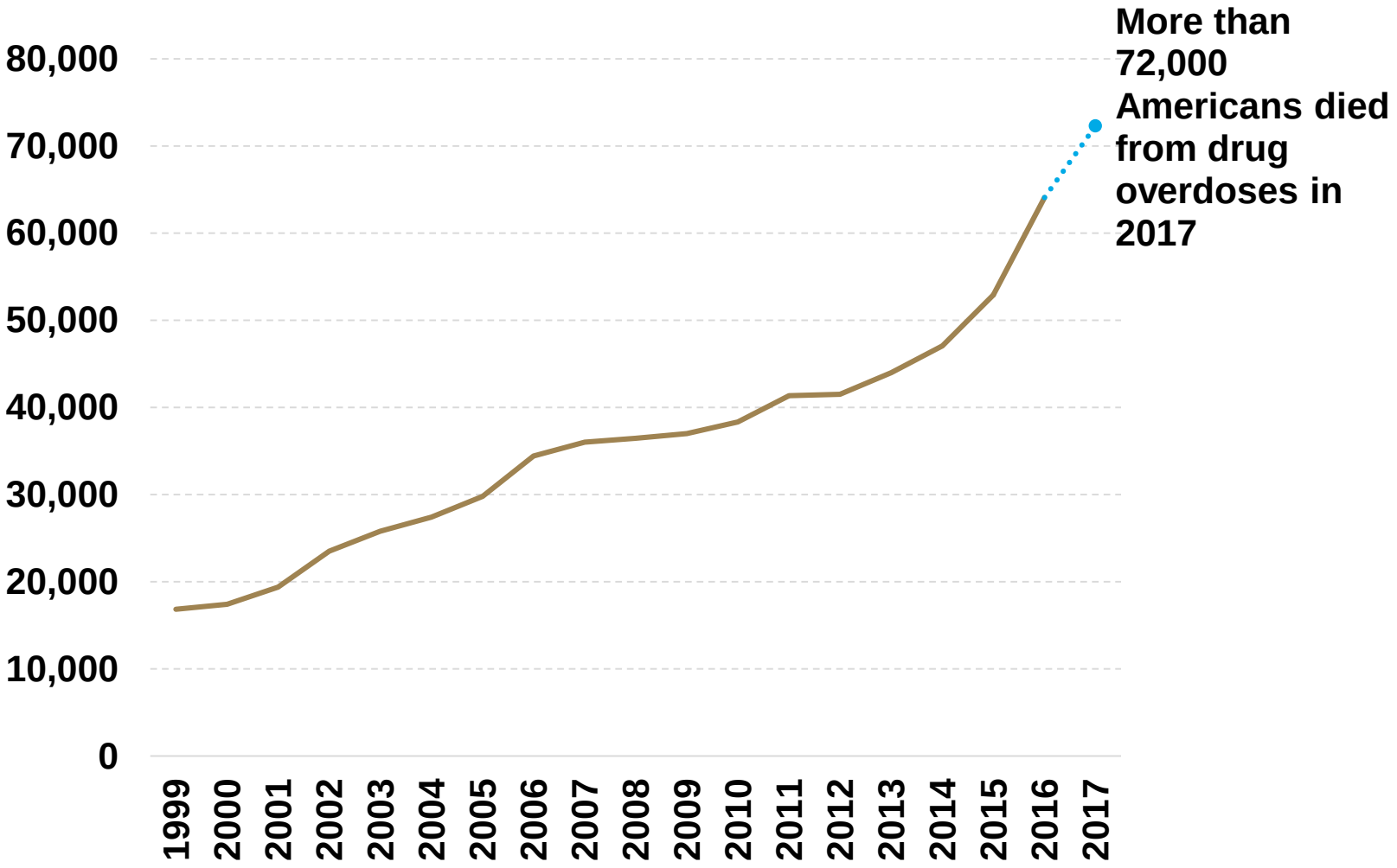
- From 2012 to 2016, the number of heroin-related deaths increased from 91 to 234 and deaths related to synthetic opioids rose from 52 to 72.

Drugs Involved in U.S. Overdose Deaths, 1999 to 2017



Source: National Center for Health Statistics, CDC Wonder

Total U.S. Drug Deaths

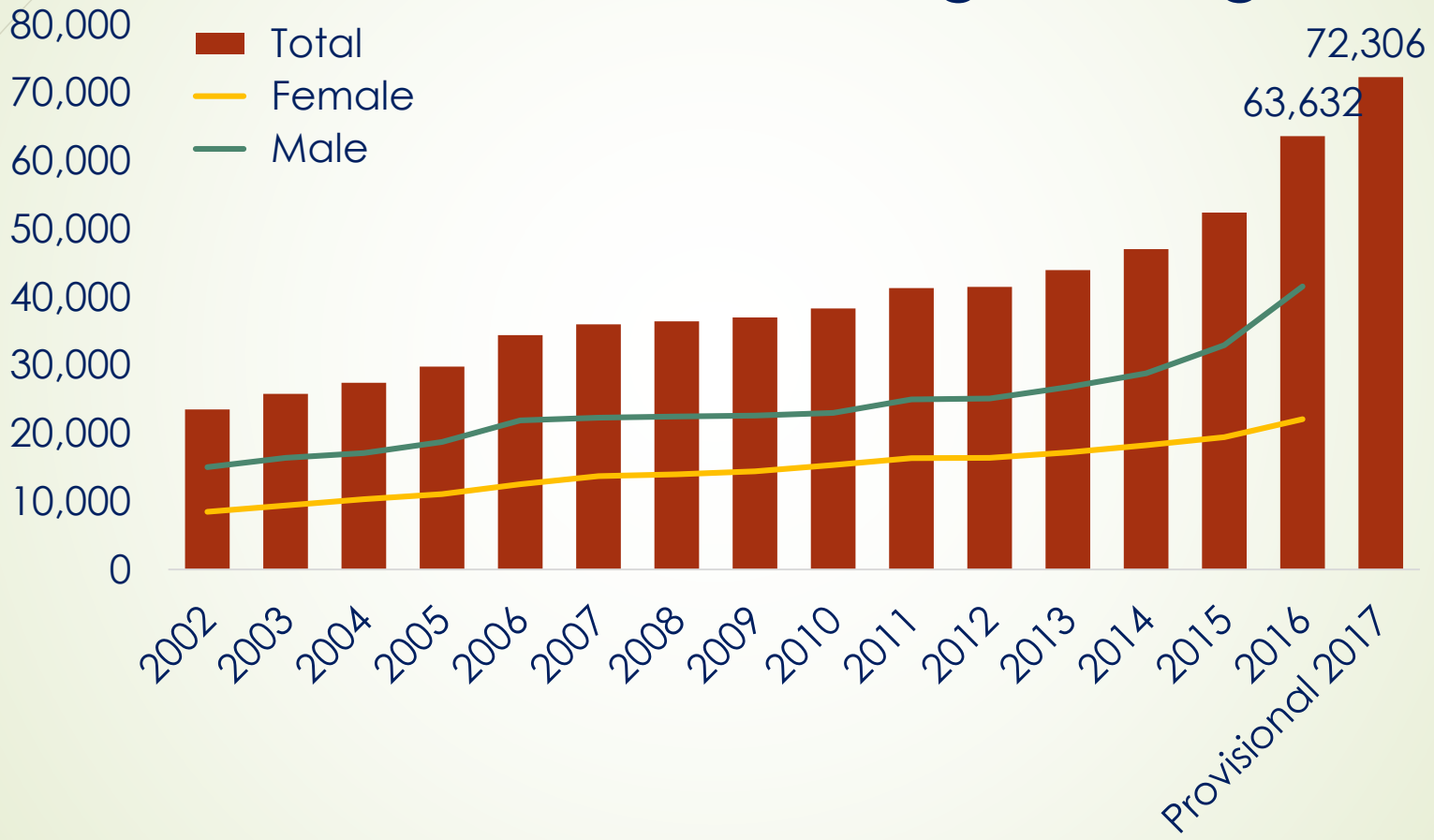


Source: National Center for Health Statistics, CDC Wonder

National Institute on Drug Abuse

National Overdose Deaths

Number of Deaths Involving All Drugs

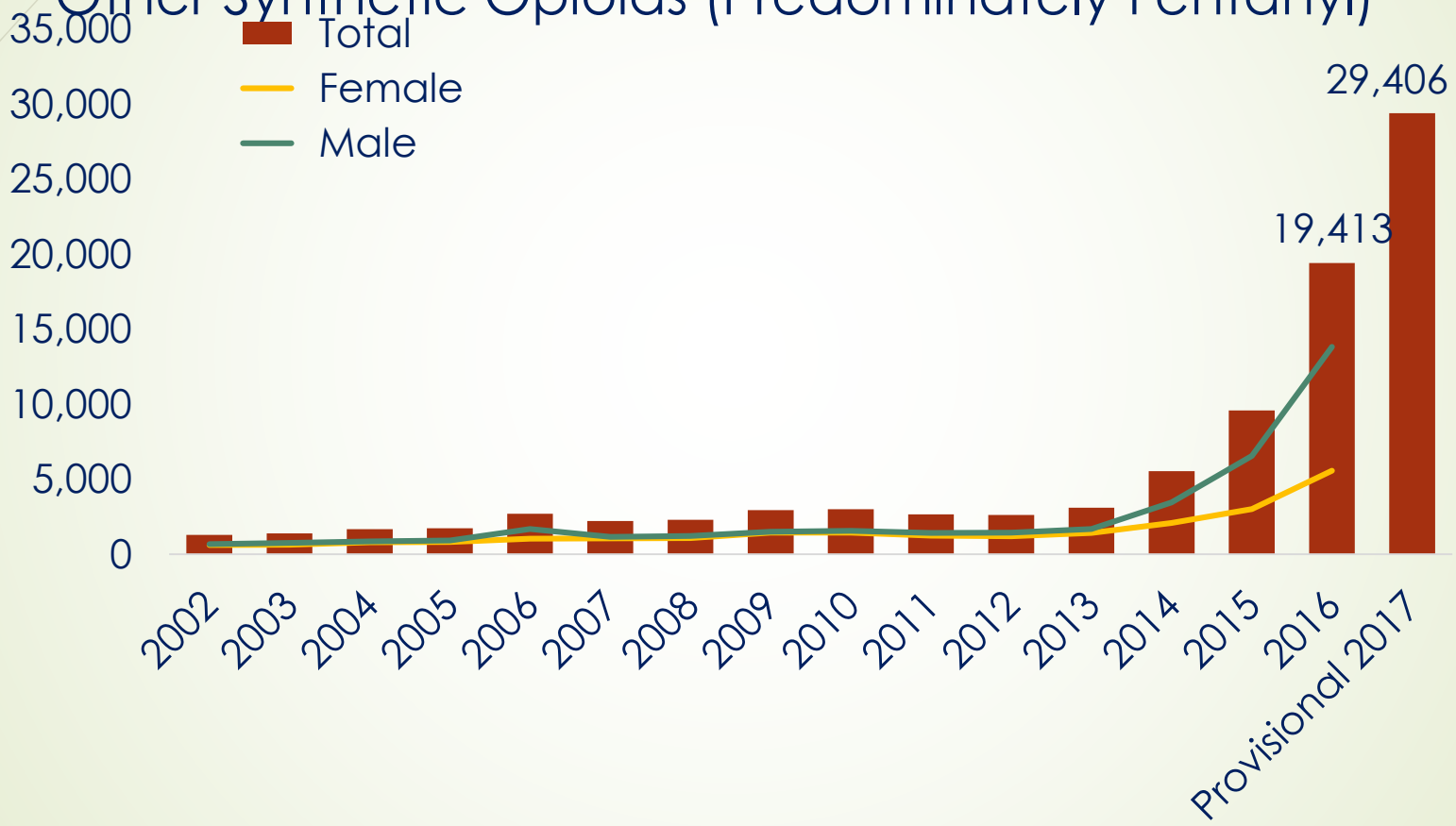


Source: National Center for Health Statistics, CDC Wonder

National Institute on Drug Abuse

National Overdose Deaths

Number of Deaths Involving Other Synthetic Opioids (Predominately Fentanyl)

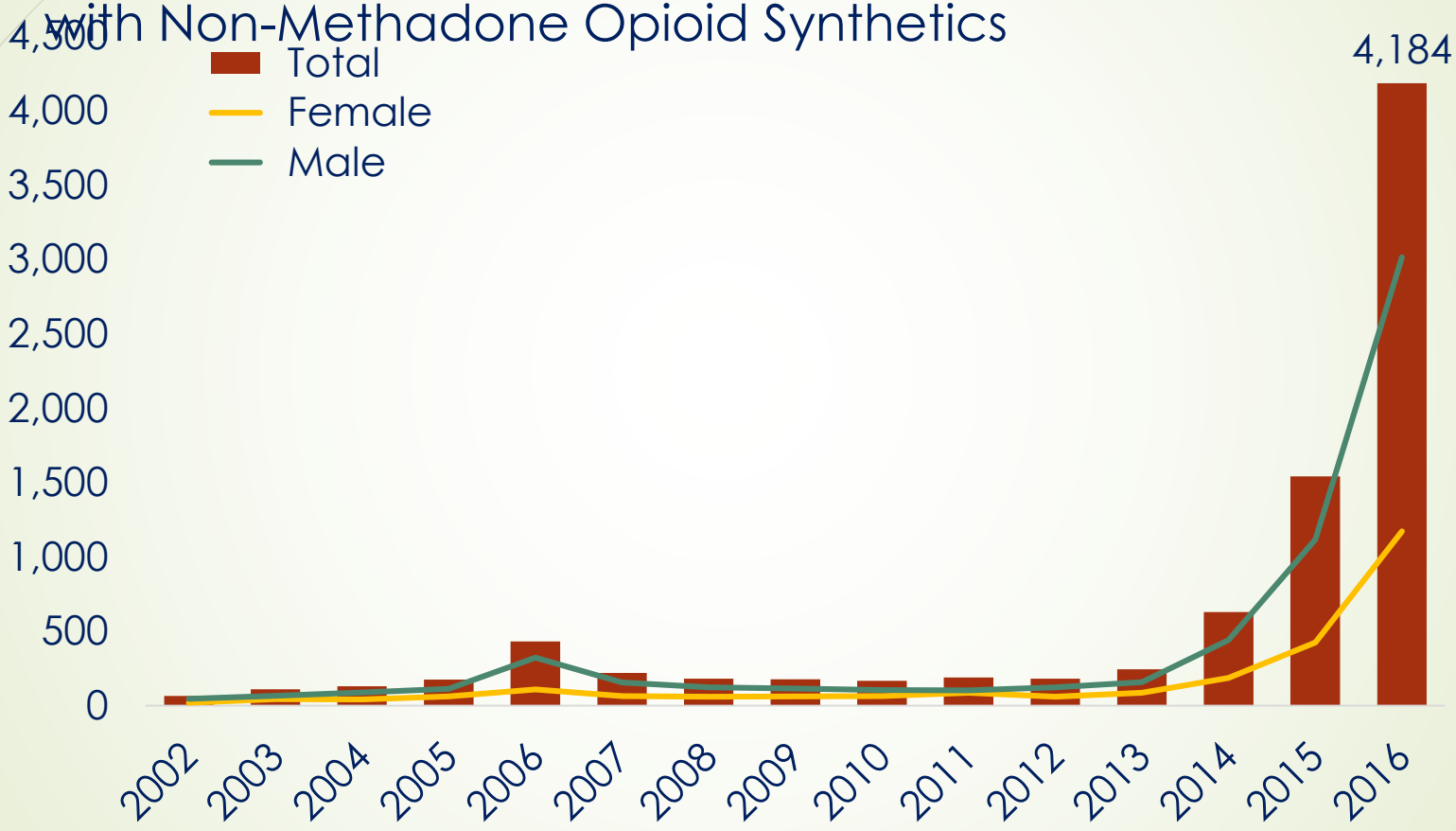


Source: National Center for Health Statistics, CDC Wonder

National Institute on Drug Abuse

National Overdose Deaths

Number of Deaths Involving Cocaine in Combination with Non-Methadone Opioid Synthetics



Source: National Center for Health Statistics, CDC Wonder


INVEST in SUCCESS
PREVENTION, INTERVENTION & TREATMENT
COLORADO SNAPSHOT
LOSING GROUND
Substance Use Disorder is Skyrocketing in our Communities
224K
PEOPLE in COLORADO
misuse prescription medications every year
19.1%
of all TREATMENT ADMISSIONS
are for methamphetamines
300
DEATHS/YR.
are the result of painkiller overdoses
↑82%
UNINTENTIONAL DRUG POISONING DEATHS
from 2004 to 2013
1 IN 7
HIGH SCHOOL STUDENTS
has taken prescription medications without a doctor's prescription
12TH
in the NATION
for self-reported nonmedical use of opioid painkillers in 2012-13
3X MORE
in 4 YEARS
deaths due to heroin in Colorado
SPENDING EXAMPLE
LARIMER COUNTY
spent on ACUTE SERVICES
88%
$1.71
MILLION
Jail, emergency medical transport, hospital inpatient, emergency department, police contact and detoxification
Dollars are not being used effectively. Too many substance use disorder dollars are spent on acute services rather than treatment.
spent on TREATMENT
$239
THOUSAND
12%
Outpatient mental health and/or substance use disorder treatment, and treatment provided through Alternative Sentencing and Community Corrections
COLORADO can do BETTER
SUBSTANCE USE DISORDER PREVENTION, INTERVENTION & TREATMENT STRENGTHENS COMMUNITIES & SAVES DOLLARS
$1 SPENT ON TREATMENT RETURNS AS MUCH AS $7
in reduced drug-related crime, criminal justice costs, and theft
WHEN YOU ADD HEALTH-RELATED SAVINGS: fewer interpersonal conflicts; greater workplace productivity; and fewer drug-related accidents, including overdoses and deaths
TOTAL SAVINGS exceed COSTS BY 12:1

Ways to combat the opioid crisis

- Prescription drug monitoring programs
- State prescription drug laws
- Insurance strategies such as prior authorization, quantity limits, and drug utilization review
- Quality improvement programs in health care systems to increase implementation of recommended prescribing practices
- Youth substance abuse prevention, such as intensive family or school-based programs
- Patient education on the safe storage and disposal of prescription opioids
- Patient discussions with providers regarding the risks and treatment options before taking opioid medication

Colorado Response to the Opioid Crisis

Prevention Laws

Laws to prevent initial use and misuse of prescription and other drugs

- **Prescribing Limits**
- **State drug prescription identification laws**
- **Safe medication take-backs and disposals**
- **Prescription Drug Monitoring Programs (PDMP)**

Treatment Laws

Breaking down barriers for access to and provision of effective treatment

- **Provider training and workforce development**
- **Removing limitations on treatment benefits or expanding coverage**
- **Improved coordination and community partnerships**

Harm Reduction Laws

Public health laws for individuals who are not in treatment of recovery

- **Overdose reversal drugs**
- **Good Samaritan Laws**
- **Injection drug use and reducing negative outcomes**

Colorado: Prescribing Limits

Starting in 2014, the Department developed a policy that limits opioids to four per day, except for acute pain situations.

Beginning October 1, 2017, the total daily limit of MME was decreased from 300 MME per day to 250 MME per day

The Policy for Prescribing and Dispensing Opioids was adopted in 2014, to provide guidelines to improve prescriber habits, to improve health care outcomes, to provide guidance to prescribers and to impact the misuse and abuse problem in Colorado.

State drug prescription identification laws

MOST STATES HAVE LAWS EITHER MANDATING OR ALLOWING PHARMACISTS TO REQUEST IDENTIFICATION BEFORE DISPENSING PRESCRIPTION DRUGS. MOST OF THE STATES HAVE AT LEAST ONE LAW MANDATING THAT PHARMACIST REQUEST IDENTIFICATION.

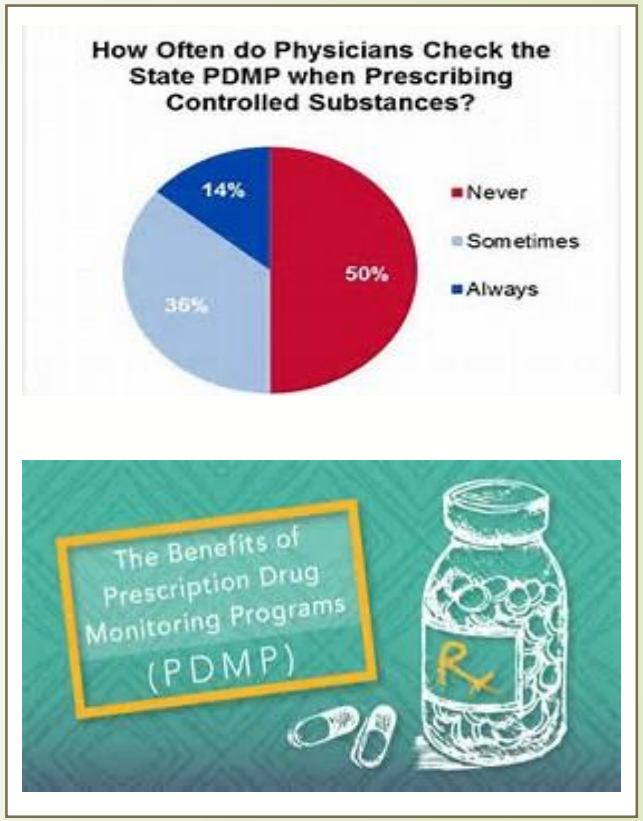
COLORADO IS ONE OF 14 STATES, PLUS THE DISTRICT OF COLUMBIA, ***WITHOUT A LAW***. NO RELATED BILLS HAVE BEEN INTRODUCED IN RECENT LEGISLATIVE SESSIONS.

Important Facts: PDMP

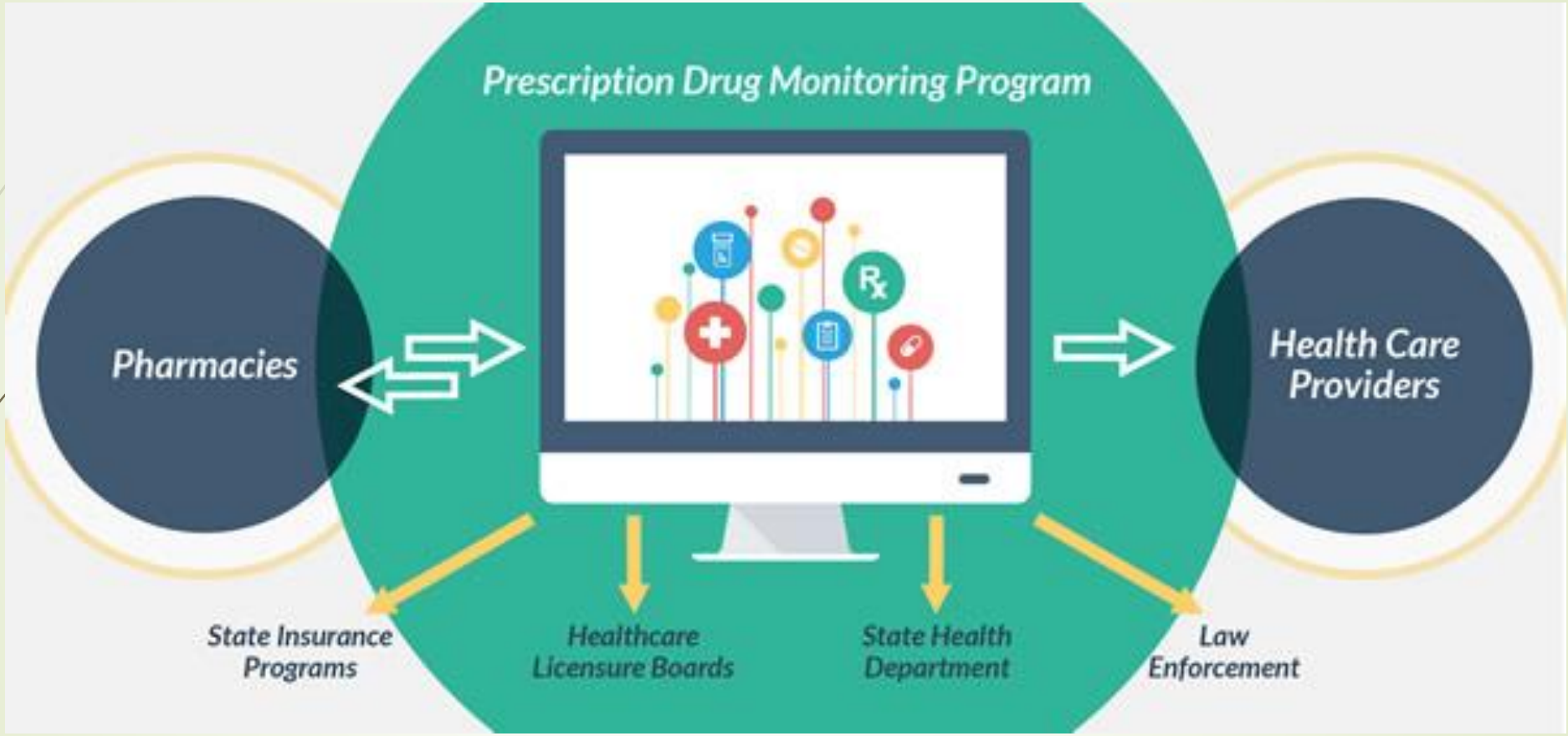
- PDMPs are promising tools for health care providers to see patients' prescribing histories to inform their prescribing decisions. However, a PDMP is only useful to health care providers if they check the system before prescribing.

- When pharmacists dispense controlled substances to patients, they have to enter the prescription into the state PDMP.

- PDMPs can also be used to send "proactive" reports to authorized users to protect patients at the highest risk and identify inappropriate prescribing trends.



Prescription Drug Monitoring Program



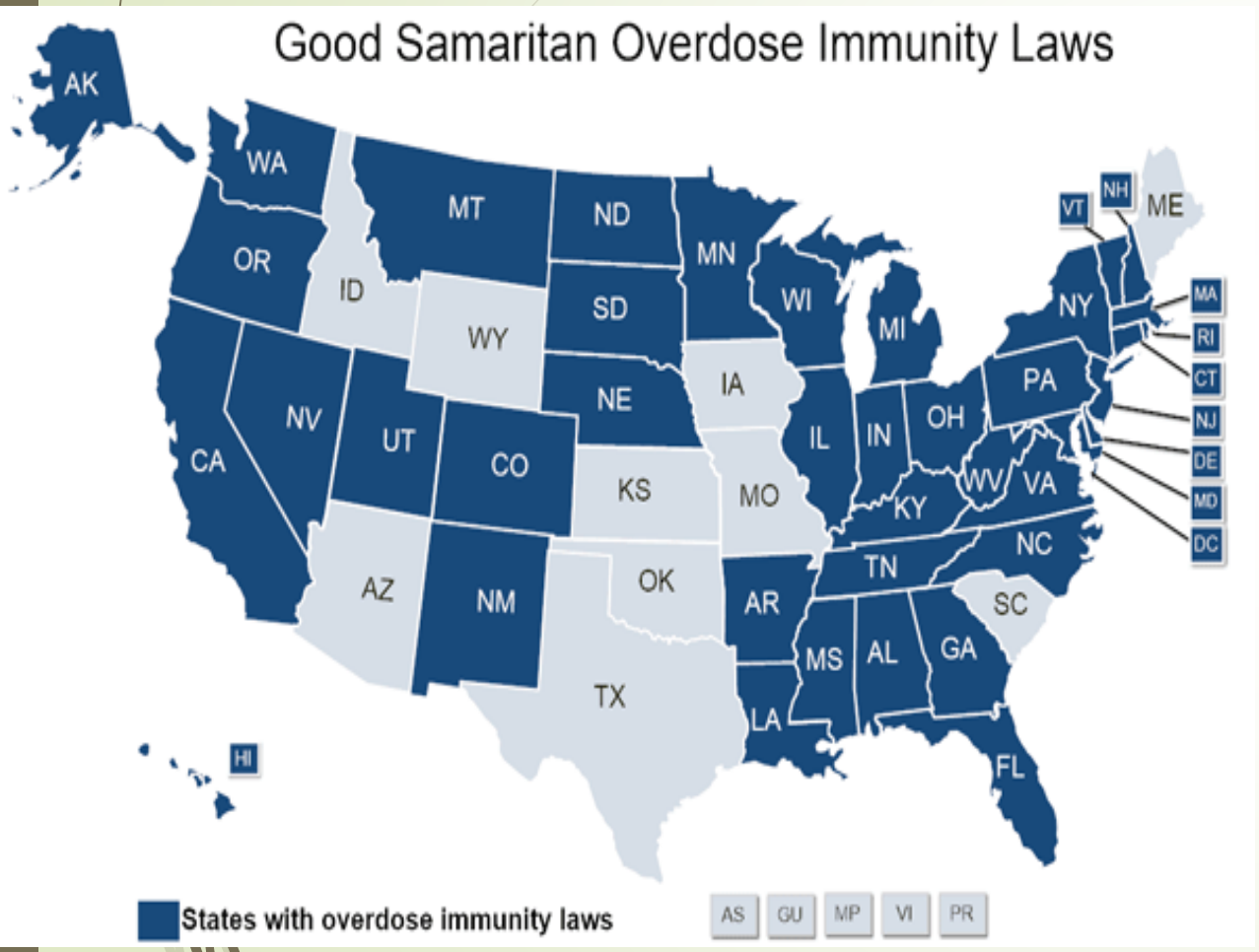
Collaborated effort in fighting opioid epidemic and safe prescribing of controlled substances

Overdose reversal drugs

- Colorado passed Senate Bill 13-014 in the 2013 legislative session, allowing third-party prescribing of opiate antagonists such as naloxone. It provides criminal and civil immunity for prescribers and dispensers of opiate antagonists and those who act in good faith to administer opiate antagonists in the event of an overdose.

- Senate Bill 15-053, passed in 2015, expands statewide access to naloxone. It allows the chief medical officer of the Colorado Department of Public Health and Environment (CDPHE) to issue standing orders for naloxone to be dispensed by pharmacies and harm reduction organization employees and volunteers.

Good Samaritan Laws



Colorado legislators have passed two bills that protect people who report an overdose. Passed in 2012, Senate Bill 12-20 provides legal protection from drug charges for those who call 911 for help. The law also protects persons suffering an opioid overdose from being arrested or prosecuted. HB16-1390, passed in 2016, updates SB12-20. The law extends protections to underage Coloradans.

Colorado Drug Trends

- Highlights
  - 41,268 treatment admissions for substance use were initiated in calendar year 2017. That is 3,130 more treatment admissions that 2016.
  - While alcohol has the highest number of treatment admissions, over 40% of treatment admissions were for Heroin and Methamphetamine in CY2017
  - Prescription Opioid treatment rates have remained stable, but Heroin treatment admissions have increased by 132% since 2013
  - Methamphetamine treatment admissions have increased by 63% since 2013
  - Marijuana treatment admissions have decreased by 7%

Summary

The table below summarizes the percent change in treatment admissions in Colorado by drug:

DRUG	Alcohol	Marijuana	Cocaine	Metham-phetamine	Heroin	Rx Opioid
2013	13,278	6,069	1,775	5,745	3,228	2,282
2017	14,380	5,665	1,503	9,354	7,475	2,219
% Change	8.3%	-6.7%	-15.3%	***62.8%***	***131.6%***	-2.8%

Psychiatric comorbidity of SUD

	%
Mood Disorders	33-90
Anxiety Disorders	1-36
Personality Disorders	3-91
Violence and Impulse Control Disorders	10-45
Suicide	10-20
Schizophrenia	0.2-19

Telemedicine Definition

- The practice of medicine in accordance with applicable Federal and State laws by a practitioner at a location mote from the patient, and

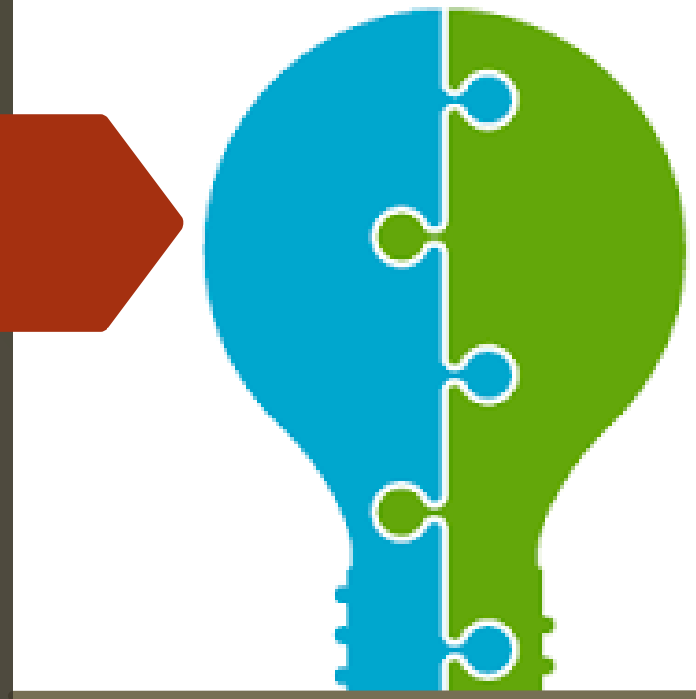
- Is communicating with the patient, or health care professional who is treating the patient, using a telecommunications system referred to in 42 C.F.R 410.78(a)(3)

Telemedicine for Substance Use Disorders

- **Rural America**
  - Disproportionally impacted
  - Higher rates of opioid prescribing
  - Demographic, economic and environmental factors
  - Higher overdoes rates
  - Higher rates of NAS
  - Physical jobs with more injuries
  - Smaller social networks

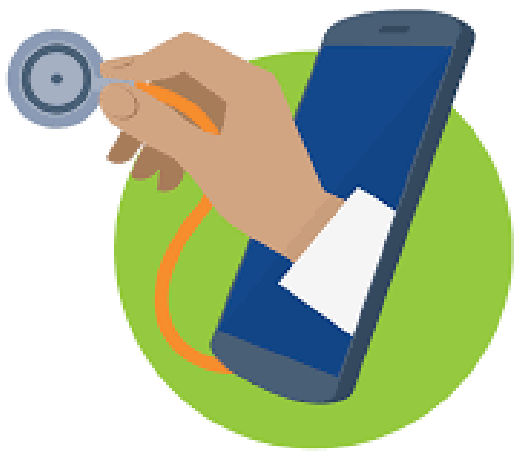
Barriers to Medication Assisted Treatment in Rural Areas

- Lack of OTPs/less than 5% in rural areas
- Methadone programs highly regulated; require frequent attendance
- Lack of buprenorphine waivered prescribers
  - less than 2% in remote rural areas
  - 60% of US counties without a wavered buprenorphine provider
- Geography/transportation/weather
- Stigma related to receiving treatment in a specialized program (i.e. a methadone program)



Telemedicine and SUDs

- **Advantages**
  - Chronic nature of substance use disorders
  - Extends provider's availability
  - Offers potential immediate resource
  - Removing barrier of geography
  - Removing barrier of stigma



Telemedicine and SUDs

- **Limitations**
  - Disparate State Regulations
  - Insurance Parity
  - Federal Regulation of Controlled Substances (Ryan Haight Act of 2008)

Overview of CATS Services

Opioid Addiction

- What is it?
- What is an opioid treatment program?
- Admission Criteria
- Medication Assisted treatment **(MAT)**
- Substance abuse counseling

Alcohol Addiction

- Medications to treat

Opioid Addiction

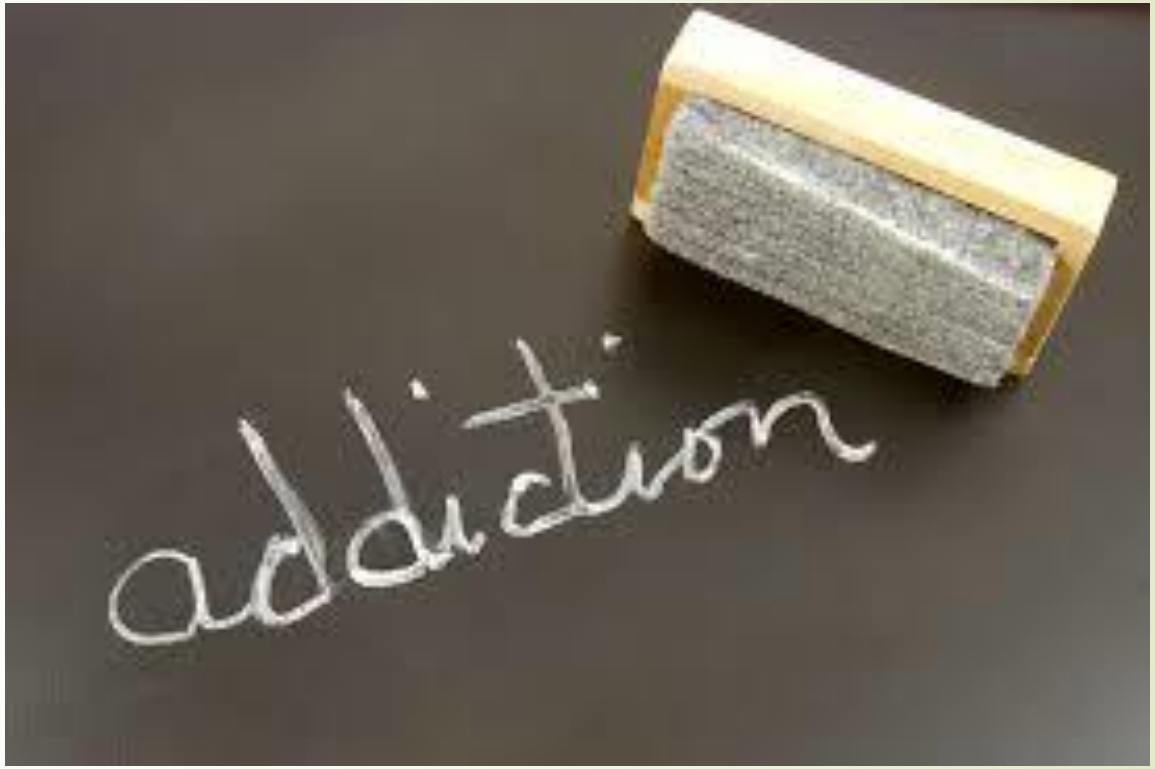
According to the American Society of Addiction Medicine, ***addiction is a primary, chronic disease of brain reward, motivation, memory, and related circuitry.***

Like other chronic diseases, addiction often involves cycles of relapse and remission.

This chronic illness has a biological basis and ***does not indicate a moral failing***

Opioid Addiction

- Is physical dependence on and subjective need and craving for opioid drugs
- Has similarities to other chronic medical disorders
- In fact, is a ***chronic disease***



Symptoms and diagnosis of Opioid Use Disorder

According to the Diagnostic and Statistical Manual of Mental Disorders ***(DSM)-5***, the diagnosis of "opioid use disorder" can be applied to someone who uses opioid drugs and has :

at least two of the following symptoms within a 12 month period

1. Taking more opioid drugs than intended
2. Wanting or trying to control opioid drug use without success
3. Spending a lot of time obtaining, taking, or recovering from the effects of opioid drugs
4. Cravings opioids
5. Failing to carry out important roles at home, work or school because of opioid use

Symptoms and diagnosis of Opioid Use Disorder

6. Continuing to use opioids, despite use of the drug causing relationship or social problems
7. Giving up or reducing other activities because of opioid use
8. Using opioids even when it is physically unsafe
9. Knowing that opioid use is causing a physical or psychological problem, but continuing to take the drug anyway
10. Tolerance for opioids
11. Withdrawal symptoms when opioids are not taken

Why is addiction so difficult to treat?

- Opioid tolerance, dependence, and addiction are all manifestations of brain changes resulting from chronic opioid abuse. The opioid abuser's struggle for recovery is in great part a struggle to overcome the effects of these changes.

What is an Opioid Treatment Program (OTP)

- Treatment of opioid use disorder with administered and dispensed medications
- Counseling with certified addiction counselors
- Highly regulated with federal and state governments and DEA
- Daily dosing of medications
- Physician and nursing oversight

Admission Criteria

- **Federal regulations**:
  - opioid pharmacotherapy is appropriate for persons who currently are addicted to an opioid drug and became addicted at **least one year** before admission (42 CFR, Part 8 § 12(e)).

Substance Abuse and Mental Health Services Administration
SAMHSA

Admission Criteria

- **Exceptions:**
  - If appropriate, a program physician can invoke an exception to the 1-year addiction history requirement for patients:
    - released from **correctional facilities** (within 6 months after release)
    - **pregnant patients** (must certify pregnancy)
    - **previously treated patients** (up to 2 years after discharge) (42 CFR, Part 8 § 12(e)(3)).

What is Medication assisted treatment?

- Is any opioid addiction treatment that includes a U.S. Food and Drug Administration (FDA)approved medication for the detoxification or maintenance treatment of opioid addiction
  - Examples: Methadone, Buprenorphine, Buprenorphine/Naloxone, Naltrexone

Product	Formulations	Receptor Pharmacology	FDA Approval	DEA Schedule	Treatment Settings
Methadone	Oral solution, liquid concentrate, tablet/diskette and powder	Full mu opioid agonist	1970 (for detoxification) 1970 (for maintenance)	II	**OTP**
LAAM	Oral solution	Full mu opioid agonist	1993	II	**OTP**
Buprenorphine (Subutex®)	Sublingual tablet	Partial mu opioid agonist	2002	III	**Physician's office, OTP, or other health care setting**
Buprenor-phine/Naloxone (Suboxone®)	Sublingual tablet or film	Partial mu opioid antagonist	2002	III	**Physician's office, OTP or other health care setting**
Naltrexone	Oral tablet	Mu opioid antagonist	1984	Not scheduled	**Physician's office, OTP, any substance abuse treatment program**

Methadone facts

- long-acting full opioid agonist
- Therapeutically appropriate doses of Methadone produce cross-tolerance for short-acting opioids, thereby suppressing withdrawal symptoms and opioid craving as a short-acting opioid is eliminated from the body

Methadone facts

- Extensive bioavailability and long half-life, an adequate daily oral dose of methadone suppresses withdrawal and drug craving for 24 to 36 hours in most patients who are opioid addicted

Methadone facts

Methadone maintenance is safe and effective when used with appropriate safeguards and psychosocial services. Maintenance treatment typically leads to reduction or cessation of illicit opioid use and its adverse consequences including:

Cellulitis, abscesses

Hepatitis, HIV infection from use of nonsterile injection equipment

Criminal behavior associated with obtaining drugs

Overdose and death

Buprenorphine

long acting, semi-synthetic partial opioid agonist with a strong affinity for the same receptors in the brain to which opioids attach. Buprenorphine can reduce cravings and eliminate the euphoric effect of opiates and opioids

Buprenorphine

- Less or no euphoria or physical dependence
- A lower potential for misuse
- A ceiling on opioid effects
- Relatively mild withdrawal symptoms compared to other opioids

Optimal dosage

- It is critical to **successful** patient management in ***MAT*** to determine a medication dosage that will:
  - **minimize withdrawal symptoms**
  - **minimize cravings**
  - **decrease or eliminate opioid abuse**

Optimal dosage goals

Prevention of opioid withdrawal for 24 hours or longer, including both early subjective symptoms and objective signs typical of abstinence

Elimination of drug hunger or craving

Blockade of euphoric effects of self- administered opioids

Opioid disorder treatment

National Institute on Drug Abuse Comprehensive Care Related Principles of Effective Drug Addiction Treatment

Effective treatment attends to multiple needs of the individual, not just his or her drug use.

Counseling is a critical component of effective treatment for addiction.

Medications are an important element of treatment for many patients, especially when combined with counseling.

Alcohol Use Disorder Diagnosis

Criteria for the Diagnosis of Alcohol Use Disorder

A problematic pattern of alcohol use leading to clinically significant impairment or distress, as manifested by **at least two of the following, occurring within a 12-month period**:

1. Alcohol is often taken in larger amounts or over a longer period than was intended.
2. There is a persistent desire or unsuccessful efforts to cut down or control alcohol use.
3. A great deal of time is spent in activities necessary to obtain alcohol, use alcohol, or recover from its effects.
4. Craving, or a strong desire or urge to use alcohol.
5. Recurrent alcohol use resulting in a failure to fulfill major role obligations at work, school, or home.
6. Continued alcohol use despite having persistent or recurrent social or interpersonal problems caused or exacerbated by the effects of alcohol.

Alcohol Use Disorder Diagnosis

7. Important social, occupational, or recreational activities are given up or reduced because of alcohol use.
8. Recurrent alcohol use in situations in which it is physically hazardous.
9. Alcohol use is continued despite knowledge of having a persistent or recurrent physical or psychological problem that is likely to have been caused or exacerbated by alcohol.
10. Tolerance, as defined by either of the following:
    a. A need for markedly increased amounts of alcohol to achieve intoxication or desired effect.
    b. A markedly diminished effect with continued use of the same amount of alcohol.
11. Withdrawal, as manifested by either of the following:
    a. The characteristic withdrawal syndrome for alcohol.
    b. Alcohol (or a closely related substance, such as a benzodiazepine) is taken to relieve or avoid withdrawal symptoms.

Medications for Alcohol Use Disorder

- **Naltrexone**
  - blocks opioid receptors that are involved in the rewarding effects of drinking alcohol and the craving for alcohol. Oral Naltrexone reduces relapse to heavy drinking and cuts the relapse risk during the first 3 months

Medications for Alcohol Use Disorder

- **Acamprosate (Campral)**
  - acts on the GABA and glutamate neurotransmitter systems and is thought to reduce symptoms of protracted abstinence such as insomnia, anxiety, restlessness and dysphoria. Acamprsate increases the proportion of dependent drinkers who maintain abstinence for several weeks to months

Medications for Alcohol Use Disorder

- **Topiramate (Topomax)**
  - GABA-receptor agonist (GABA is the predominant inhibitory neurotransmitter) and a glutamate antagonist (glutamate is a predominant excitatory neurotransmitter). In a chronic alcoholic state, GABA is decreased while glutamate and dopamine are increased. Topiramate blocks the glutamate receptors and increases the GABA effect; this combined effect produced a decrease in heavy drinking days and alcohol craving, with an increase in abstinent days and improved liver functions.

Medications for Alcohol Use Disorder

- **Gabapentin (Neurontin)**
  - normalizes the stress-induced GABA activation in the amygdala that is associated with alcohol dependence. Gabapentin may reduce alcohol-cued cravings and sleep disturbance in alcohol-dependent individuals. People suffering from alcohol addiction have low levels of GABA in their system, making them crave the substance, as alcohol's consumption increases GABA levels.

Colorado Addiction Treatment Services

72 Suttle St Suite M
Durango, CO 81303
970-828-3030
www.srats.net

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