IT MATTTRs Colorado™

Implementing Technology and Medication Assisted Treatment Team Training in Rural Colorado

www.itmatttrscolorado.org

Jack Westfall, MD, MPH

IT ATTTRs Colorado™

- At the end of this presentation, participants should be able to:
  - Describe the opioid epidemic in the United States and Montana
  - Identify the evidence and reasons for the increase in opioid use disorder
  - Describe the neurobiology of opioid dependence
  - List 3 clinic activities/interventions to address opioid use disorder applicable to your practice.
  - Prepare to develop a community and clinic intervention to address the opioid epidemic

THE OPIOID EPIDEMIC BY THE NUMBERS

IN 2016...

116
People died every day from opioid-related drug overdoses

11.5 m
People misused prescription opioids[1]

42,249
People died from overdosing on opioids[2]

2.1 million
People misused prescription opioids for the first time[1]

2.1 million
People had an opioid use disorder[1]

17,087
Deaths attributed to overdosing on commonly prescribed opioids[2]

948,000
People used heroin[1]

19,413
Deaths attributed to overdosing on synthetic opioids other than methadone[2]

170,000
People used heroin for the first time[1]

15,469
Deaths attributed to overdosing on heroin[2]

504 billion
In economic costs[3]

Sources: [1] 2016 National Survey on Drug Use and Health, [2] Mortality in the United States, 2016 NCHS Data Brief No. 293, December 2017, [3] CEA Report: The underestimated cost of the opioid crisis, 2017

Updated January 2018. For more information, visit: http://www.hhs.gov/opioids/

Opioids in Montana

28,000

people in Montana used perscription pain medications for non-medical purposes &

17,000

needed treatment for illegal drug use but failed to receive it.

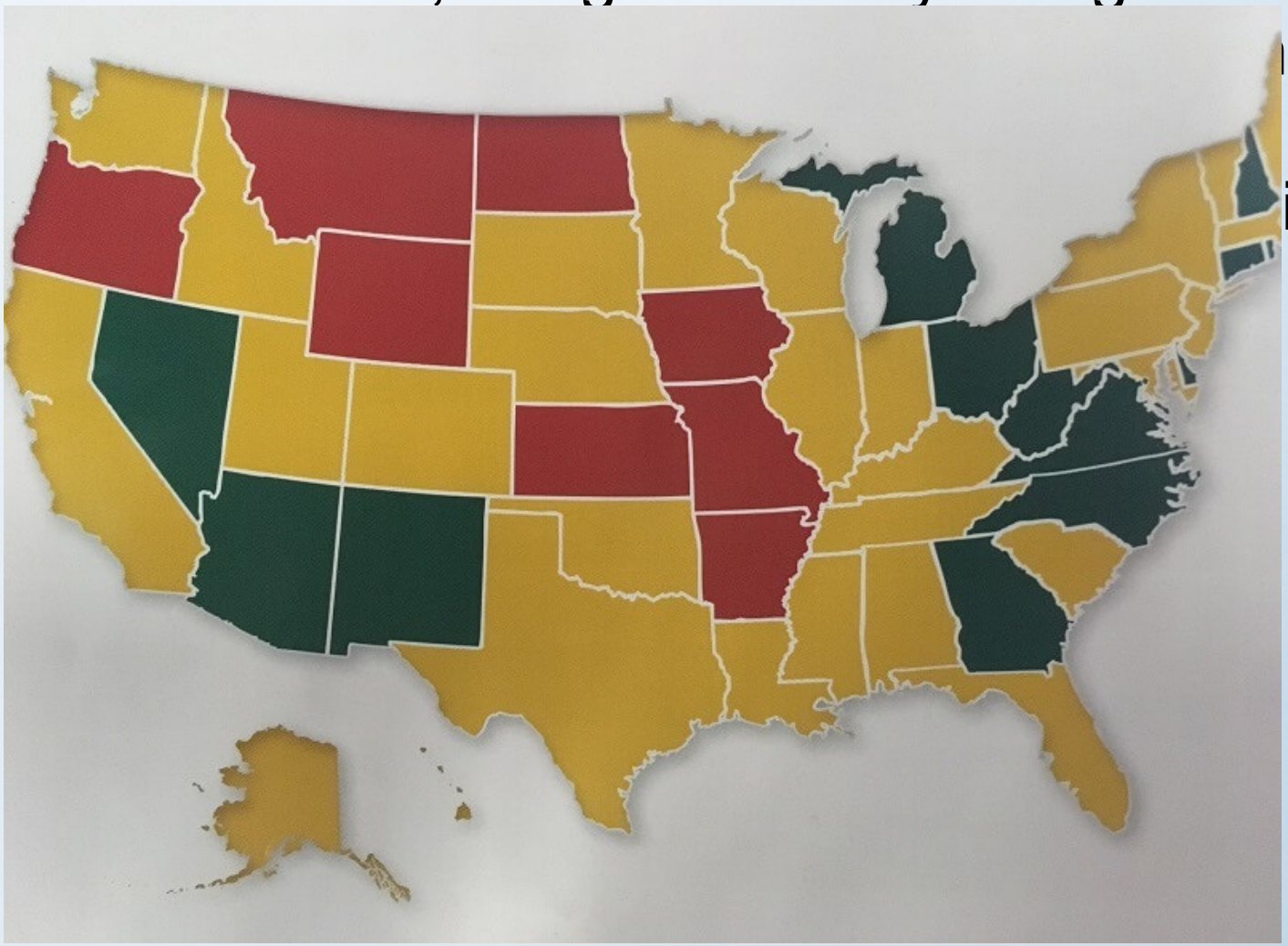
According to the CDC,

125 ***Montanans*** **DIED** **of drug** overdoses ***in 2014.***

12.4 / *100,000 deaths*

in MT could be traced to drug overdoses in 2014.

The eight states receiving a “Failing” mark – Arkansas, Iowa, Kansas, Missouri, **Montana**, North Dakota, Oregon and Wyoming – are



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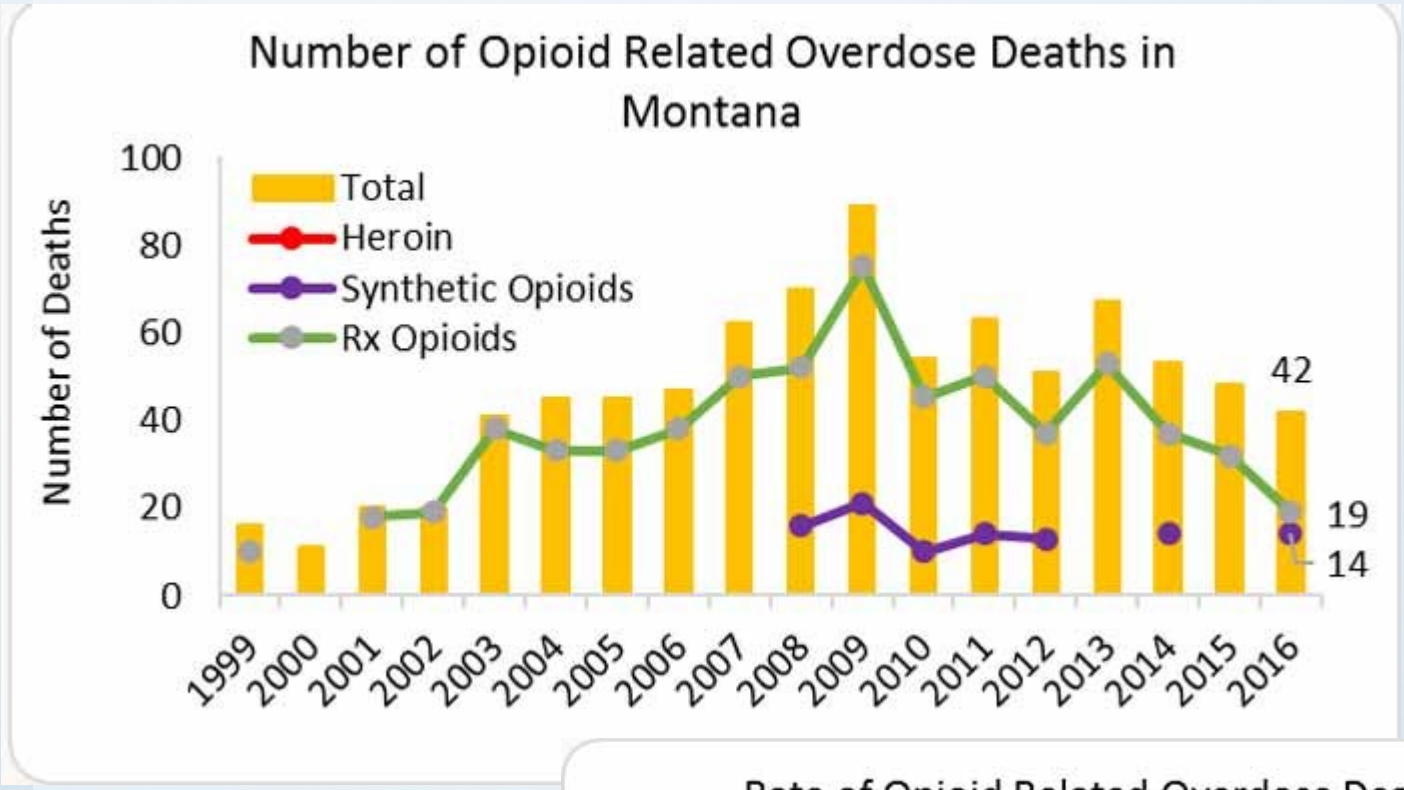
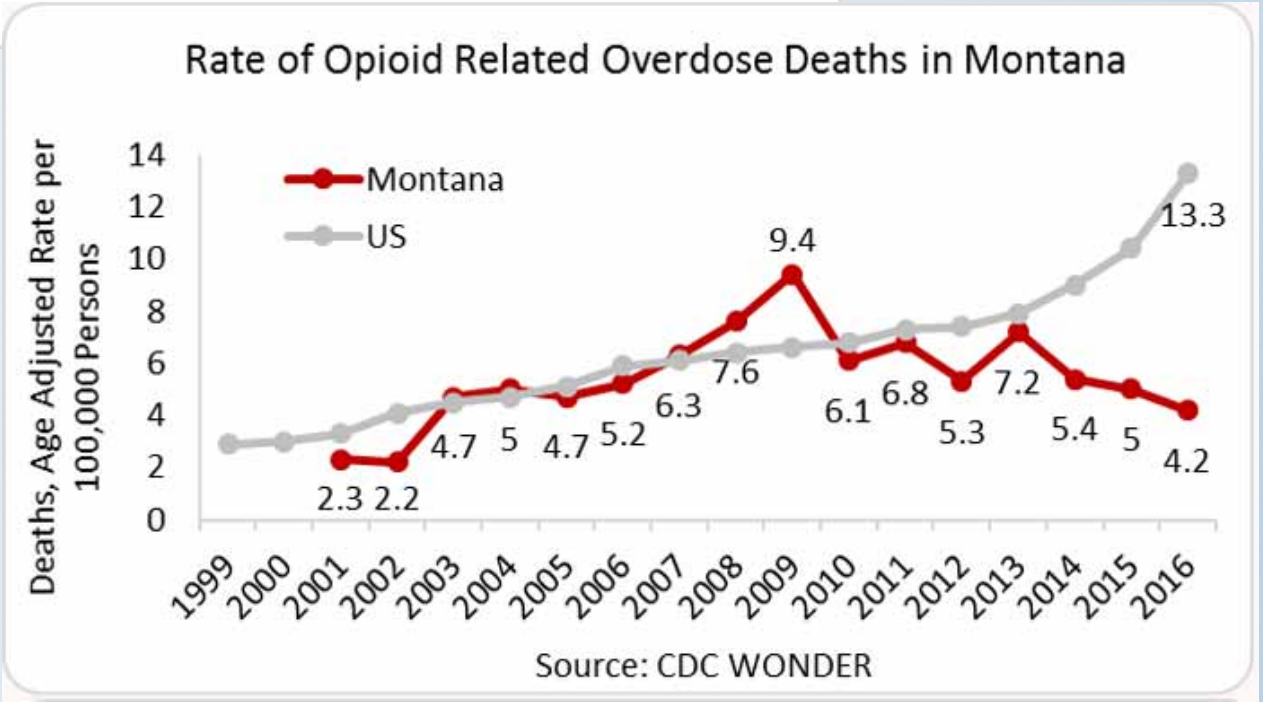
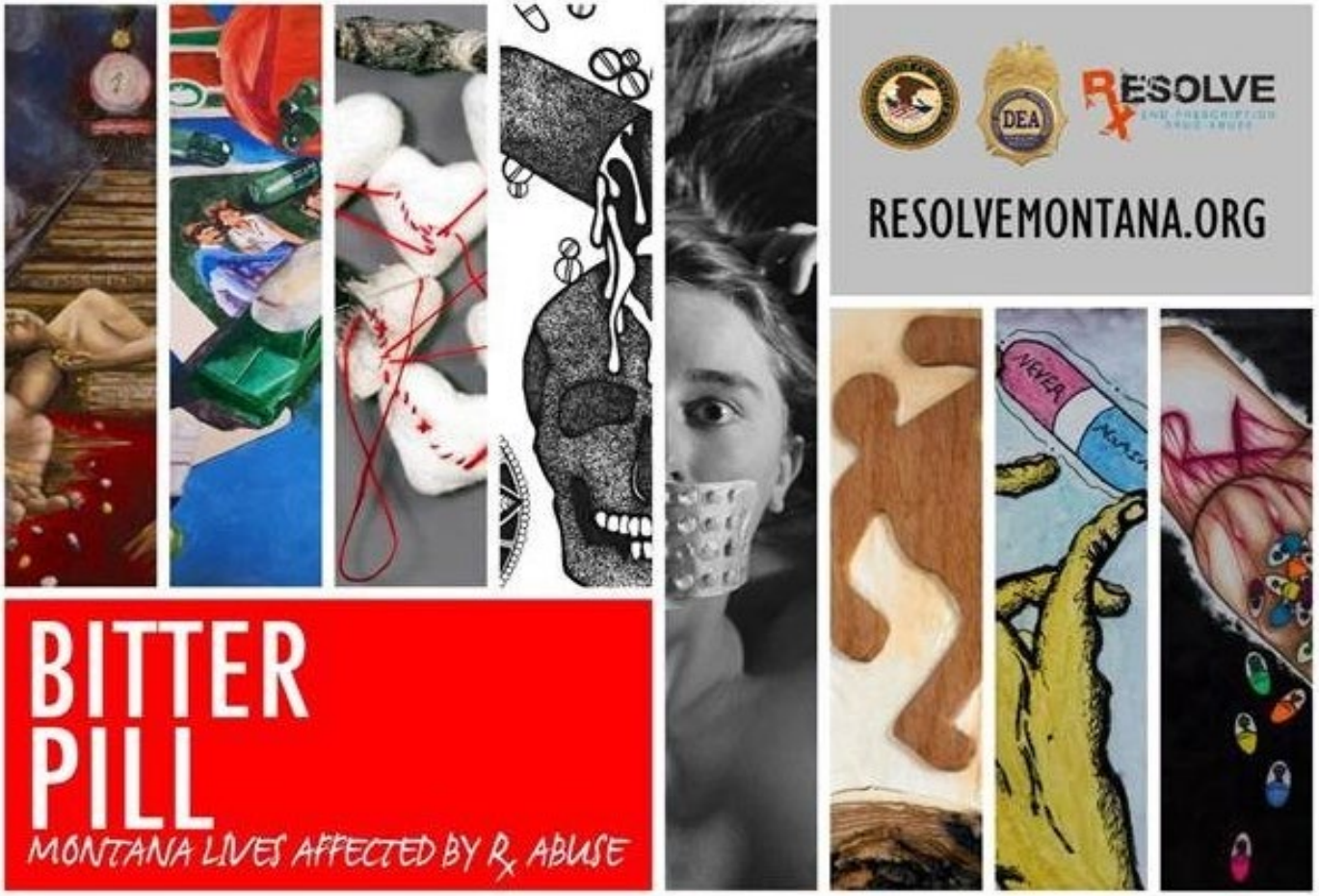

Number of Opioid Related Overdose Deaths in Montana
Number of Deaths
100
80
60
40
20
0
Total
Heroin
Synthetic Opioids
Rx Opioids
42
19
14
1999
2000
2001
2002
2003
2004
2005
2006
2007
2008
2009
2010
2011
2012
2013
2014
2015
2016


Rate of Opioid Related Overdose Deaths in Montana
Deaths, Age Adjusted Rate per 100,000 Persons
14
12
10
8
6
4
2
0
Montana
US
2.3
2.2
4.7
5
4.7
5.2
6.3
7.6
9.4
6.1
6.8
5.3
7.2
5.4
5
4.2
13.3
1999
2000
2001
2002
2003
2004
2005
2006
2007
2008
2009
2010
2011
2012
2013
2014
2015
2016
Source: CDC WONDER

2016 Juried Art Exhibition / *Bitter Pill: Montana Lives Affected by Rx Abuse*



Timeline of an epidemic

How did we get here?

Timeline of an epidemic

1980s:

- First articles published questioning conventional wisdom of ‘opiophobia’
- Articles stated there was no evidence of opioid abuse in chronic users
- Advocates for use of opioids to alleviate suffering
- 1983: MS Contin released
- “pseudo-addiction”
  - People in pain, not addiction

The "study" that started it all

ADDICTION RARE IN PATIENTS TREATED WITH NARCOTICS

To the Editor: Recently, we examined our current files to determine the incidence of narcotic addiction in 39,946 hospitalized medical patients[1] who were monitored consecutively. Although there were 11,882 patients who received at least one narcotic preparation, there were only four cases of reasonably well documented addiction in patients who had no history of addiction. The addiction was considered major in only one instance. The drugs implicated were meperidine in two patients,[2] Percodan in one, and hydromorphone in one. We conclude that despite widespread use of narcotic drugs in hospitals, the development of addiction is rare in medical patients with no history of addiction.

JANE PORTER
HERSHEL JICK, M.D.
Boston Collaborative Drug Surveillance Program
Boston University Medical Center
Waltham, MA 02154

1. Jick H, Miettinen OS, Shapiro S, Lewis GP, Siskind Y, Slone D. Comprehensive drug surveillance. JAMA. 1970; 213:1455-60.
2. Miller RR, Jick H. Clinical effects of meperidine in hospitalized medical

Timeline of an epidemic

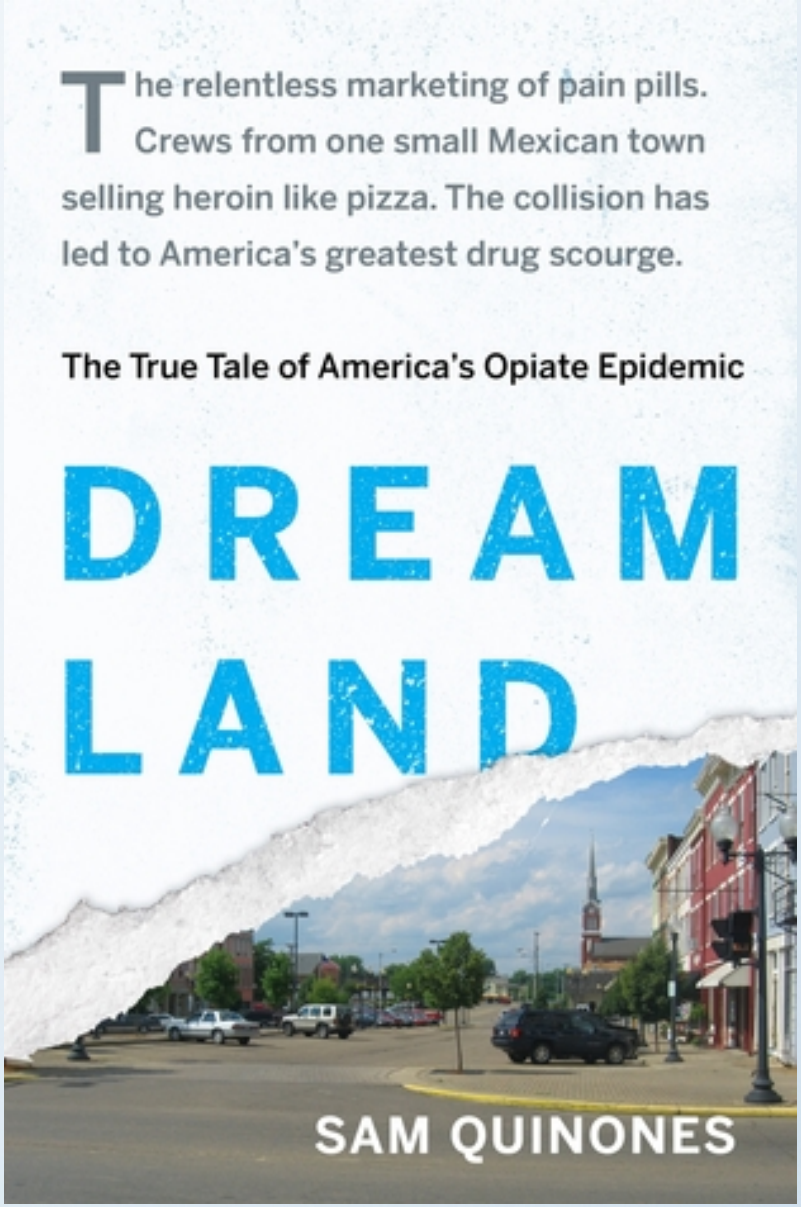
1990s:

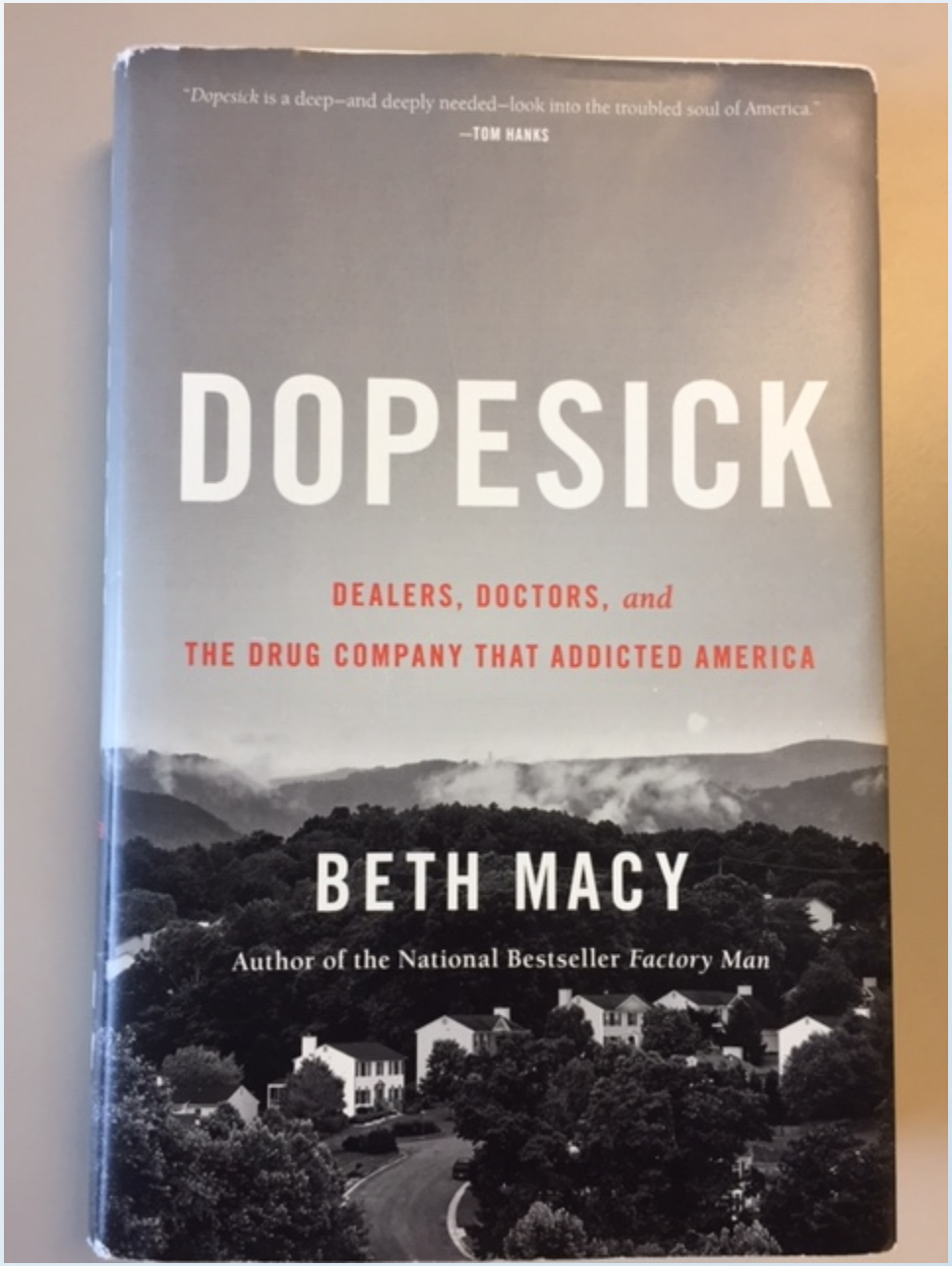
- Physician leaders (supported by Pharma) spread gospel of opioid safety & efficacy
- 1996: Oxycontin released
  - For ***moderate*** to severe pain, incl. MSK conditions
  - Marketed as unlikely to cause addiction because of long half-life
- Jury awards for pain under-treatment
  - $15 million award to family of man with metastatic cancer
  - Dr found guilty of elder abuse for under-treatment of pain
  - Increasing focus on palliative care

Timeline of an epidemic

2000's:

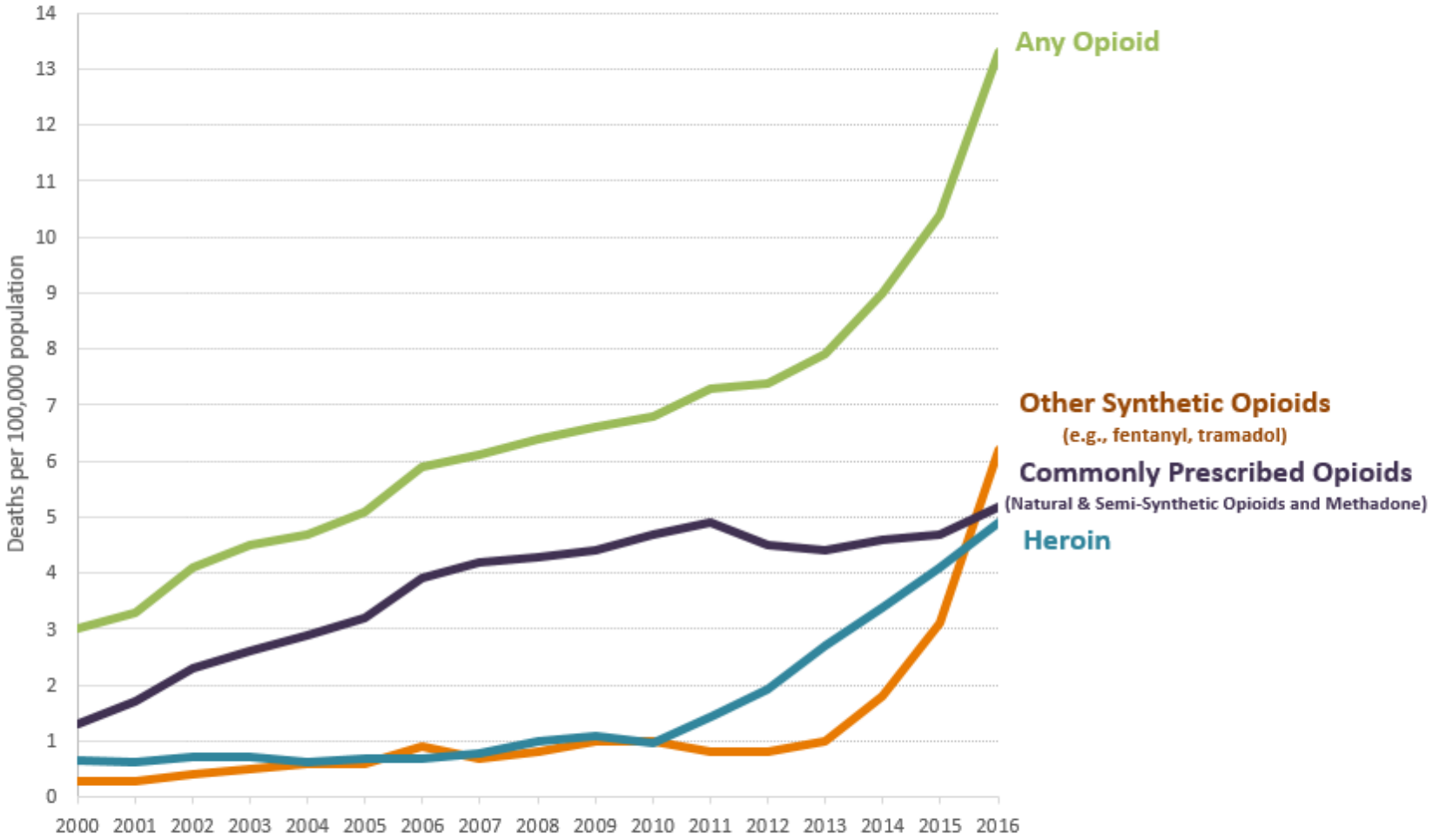
- "Pill mills" develop, especially Rust Belt & South
- Overdose death rates rise
- Mexican black tar heroin spreads into small markets
  - The "pizza delivery" method
  - Targets municipalities with high rates of opioid dependence


The relentless marketing of pain pills. Crews from one small Mexican town selling heroin like pizza. The collision has led to America's greatest drug scourge.
The True Tale of America's Opiate Epidemic
DREAM LAND
SAM QUINONES


"*Dopesick* is a deep—and deeply needed—look into the troubled soul of America."
—TOM HANKS
DOPESICK
DEALERS, DOCTORS, *and*
THE DRUG COMPANY THAT ADDICTED AMERICA
BETH MACY
Author of the National Bestseller *Factory Man*

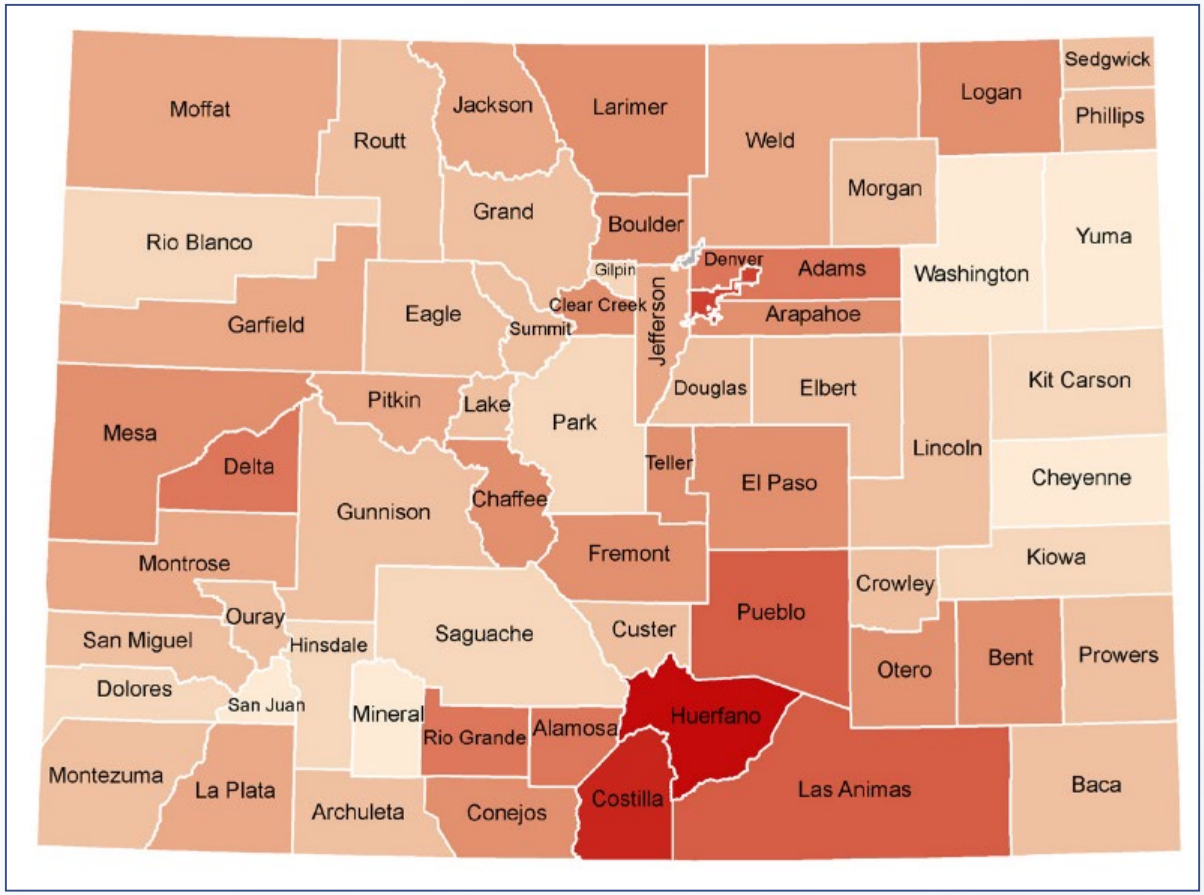
3 Waves of the Rise in Opioid Overdose Deaths

Overdose Deaths Involving Opioids, United States, 2000-2016

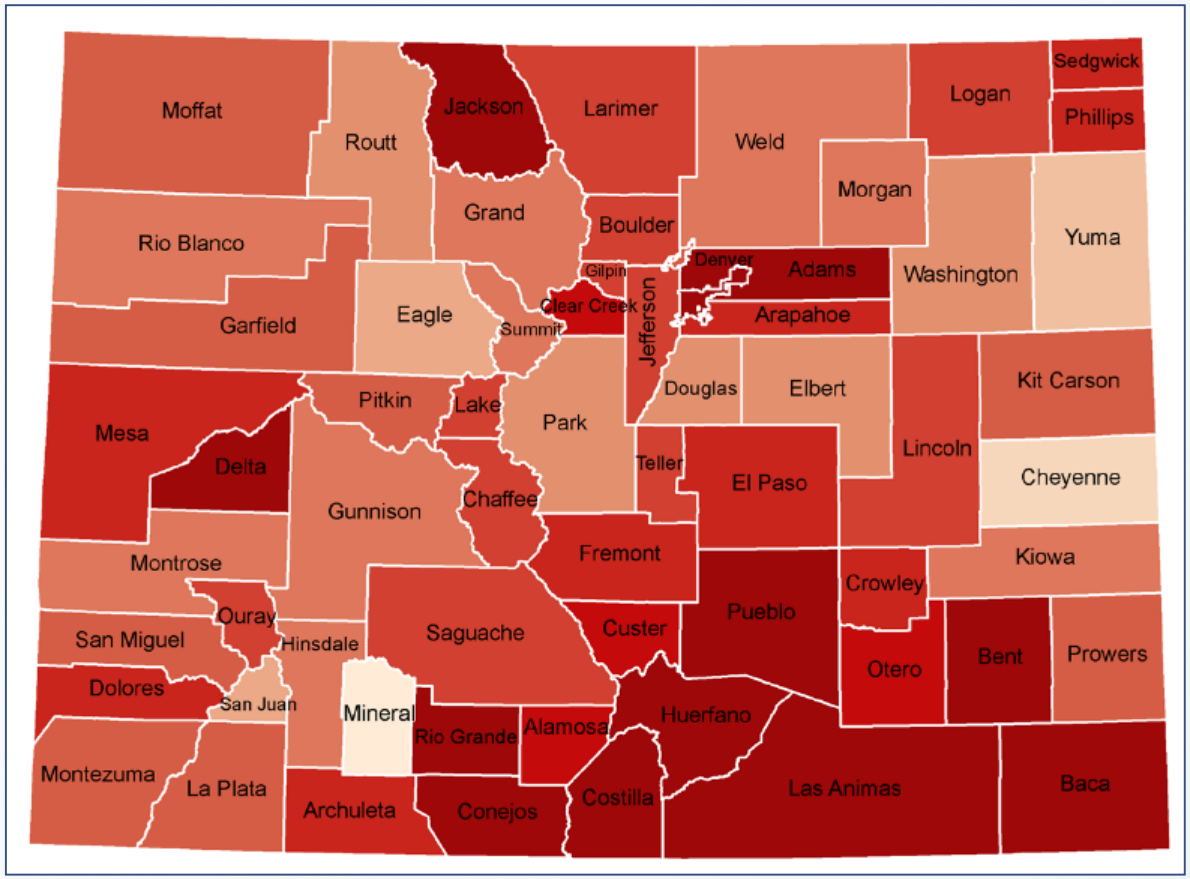


SOURCE: CDC/NCHS, National Vital Statistics System, Mortality. CDC WONDER, Atlanta, GA: US Department of Health and Human Ser vices, CDC; 2017. https://wonder.cdc.gov/.

www.cdc.gov
Your Source for Credible Health Information



Colorado drug overdose death rates: 2002



Colorado drug overdose death rates: 2014

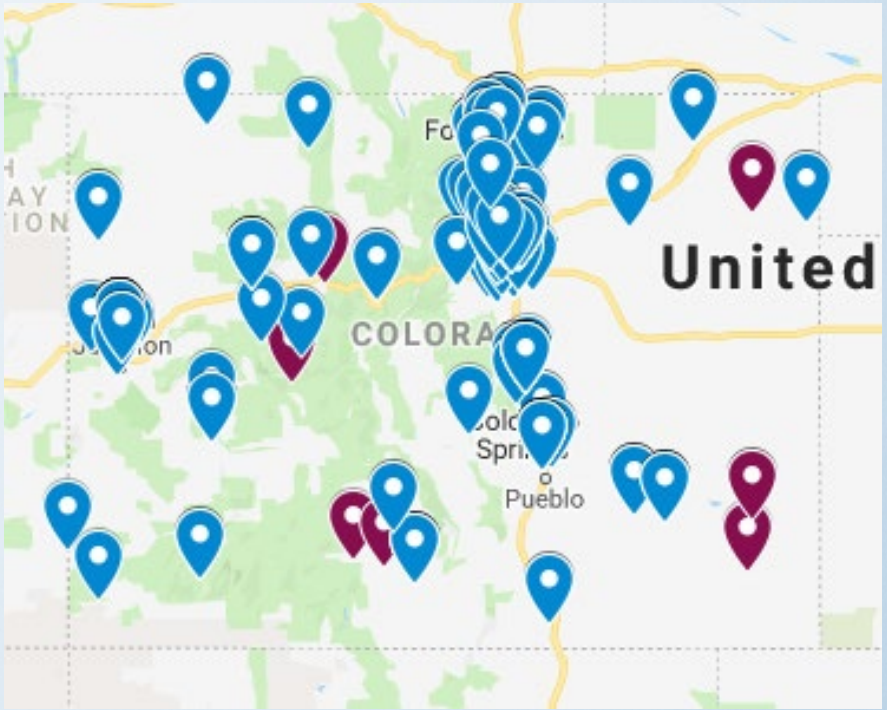
IT MATTTRs Colorado

1. Training providers
2. Training the practice team
3. Community intervention

Results So Far

IT ATTTRs Colorado™

- Waiver Training
  - 330 completed waiver training
  - 233 also applied for DEA X waiver
- Train-The-Trainer
  - 60 new expert practice trainers (including some of you!)
- Practice Team Training
  - 75 practices and counting engaged
- Patient Access to MAT
  - Nearly 7000 more patients can receive MAT
  - 820+ more patients getting MAT services

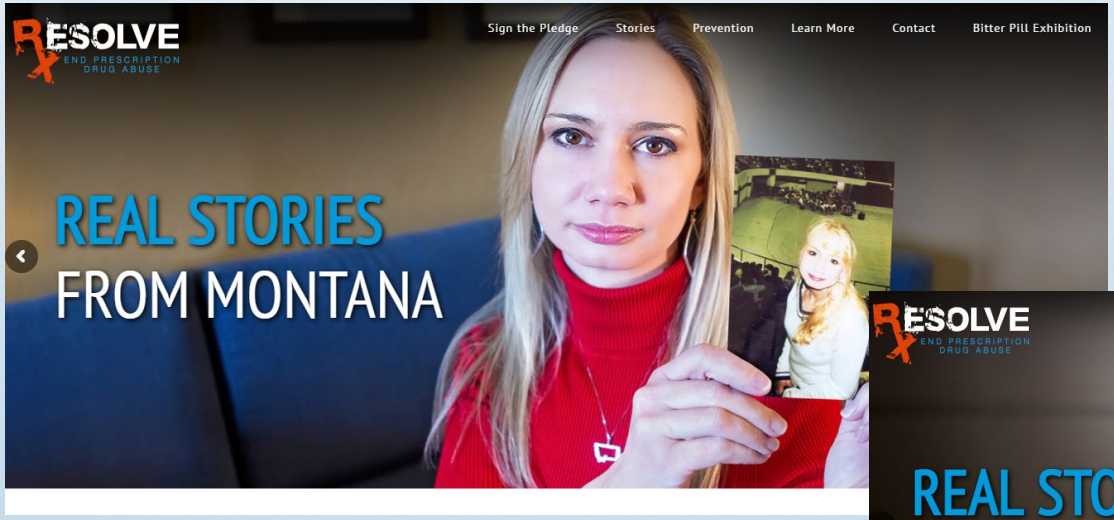


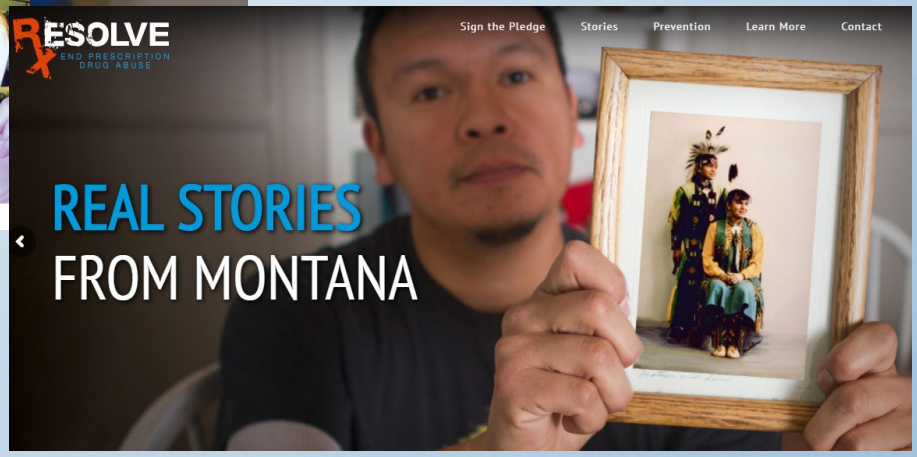
Colorado zip codes with newly trained providers.

IT MATTTRs Partners

Funded by the Agency for Healthcare Research and Quality (AHRQ)

THE RATE OF PRESCRIPTION DRUG OVERDOSE DEATHS IN MONTANA HAS DOUBLED SINCE 2000.

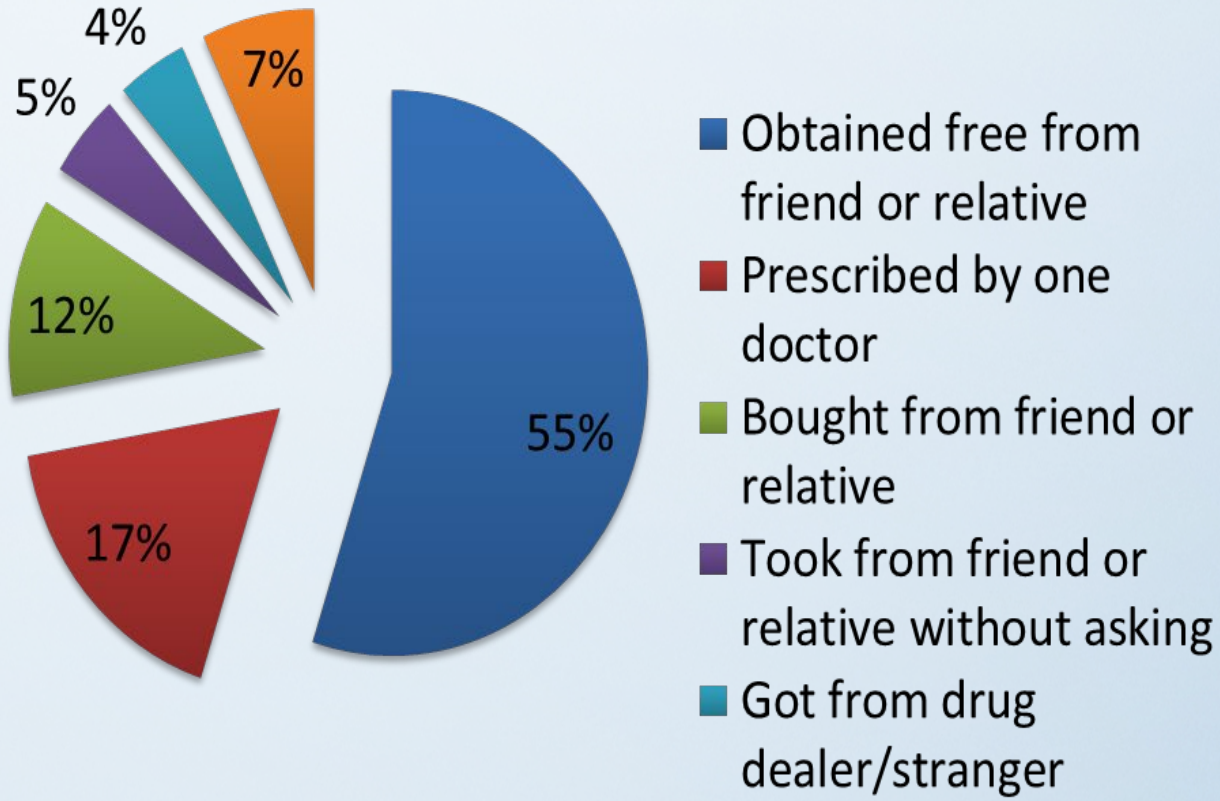




http://resolvemontana.org/

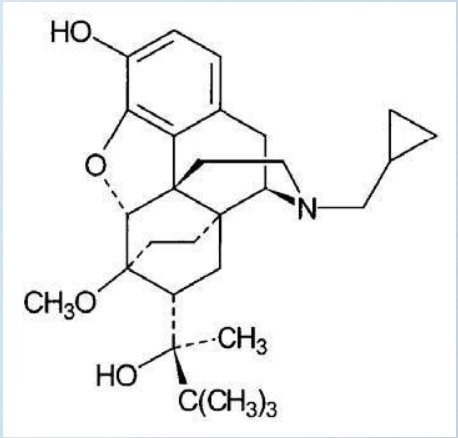

JOHN COLE
©TIMES-TRIBUNE SCRANTON/PA
PICK THE OPIOID ADDICT.
(HINT: THERE IS NO WRONG ANSWER.)

Sources of diverted opioids



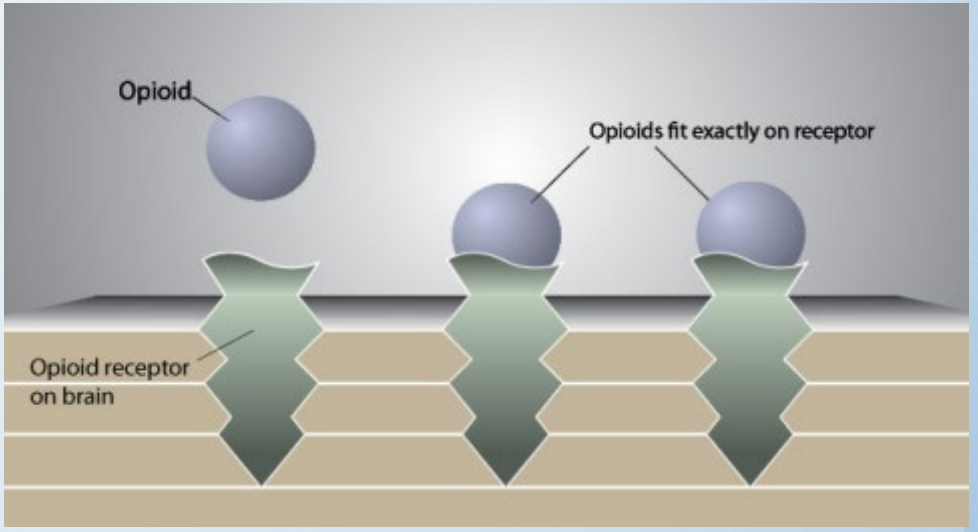
What are opioids?

- Drugs that bind to the opioid receptors
  - Mu, Kappa, and Delta
- Can be naturally-occurring or derivatives of naturally-occurring compounds (“Opiates”)
  - Morphine
  - Codeine
  - Heroin: 10x more potent than morphine
- Can be synthetic (“Opioids”)
  - Fentanyl: 100x more potent than morphine



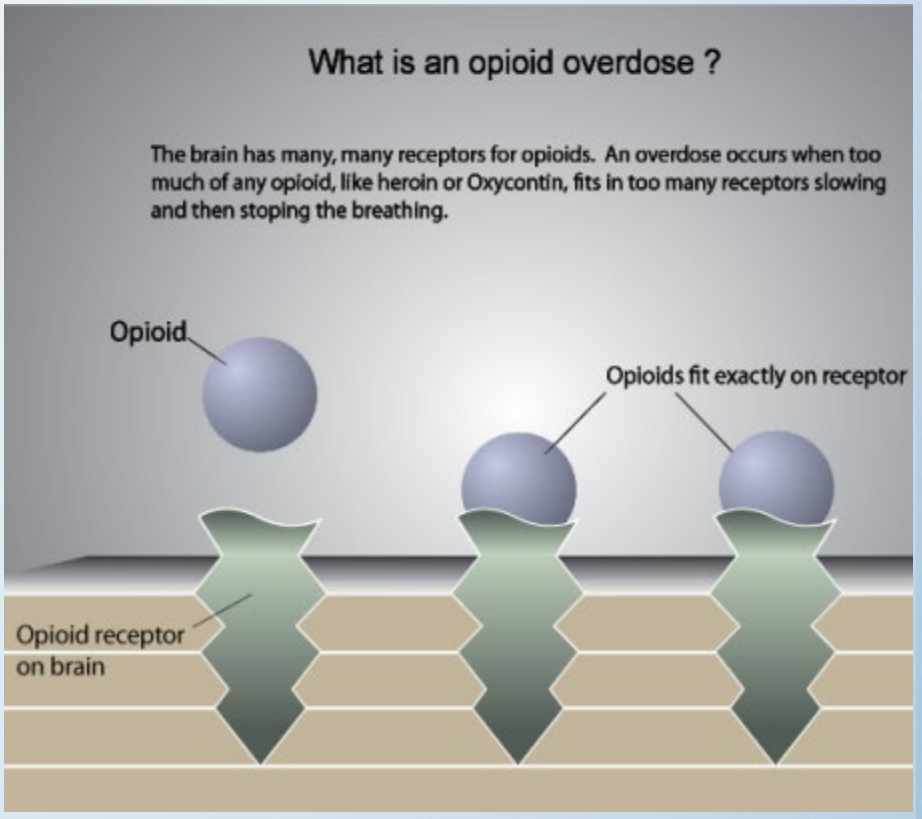
Mu receptor mediates opioid effects

- Euphoria, sedation, pain, relaxation, anxiety relief, sleepiness
- Naturally occurring compounds within our bodies bind to the opioid receptor:
  - Enkephalins
  - Beta endorphins
- Chemical opioids stimulate the receptor much more powerfully



How do people overdose?

- Tolerance develops quickly to the pleasurable effects of opioids
- Opioids block receptors in brainstem that drive breathing
- Incomplete tolerance to respiratory depression
- Lack of oxygen causes coma, brain damage, organ failure, death
- Using more powerful opioid to get that high. But over-estimate their level of tolerance (fentanyl)



How are opioids used?

- Oral
- Inhaled/smoked
- Intranasal/insufflation/sniffed/snorted
- Absorbed through rectal mucosa
- Transdermal (skin) through patches
- Injected: intravenous, intramuscular, subcutaneous

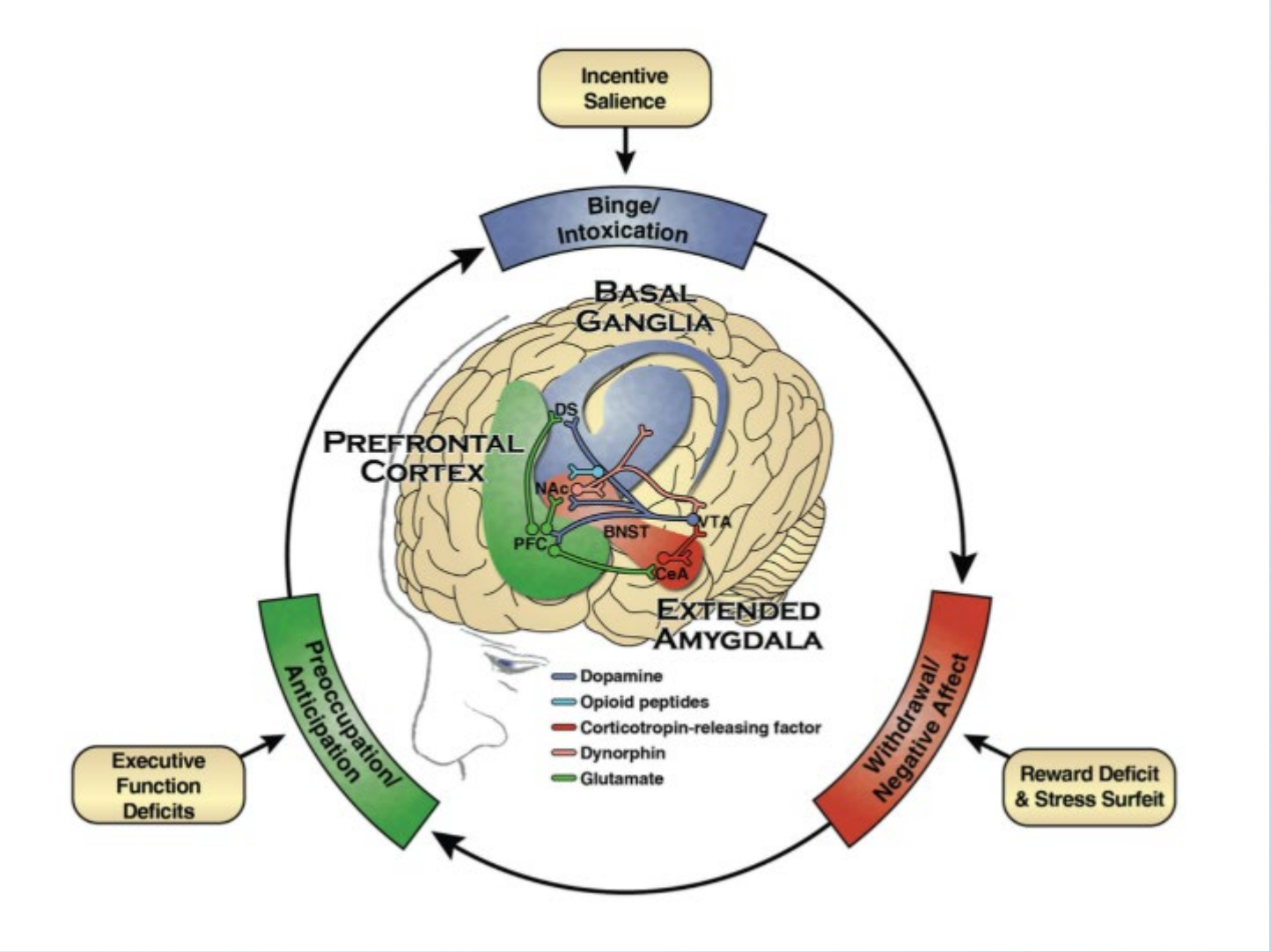
Risk factors for overdose

- High doses: especially >100 mg/day of morphine equivalents
- Reduction in tolerance: any period of abstinence (jail, detox, etc)
- Medical illness: chronic pulmonary, kidney, liver disease
- Psychiatric disease: major mood disorders, personality disorders
- History of other substance use disorder
- Mixing drugs: presence of other depressants (alcohol, benzodiazepines)

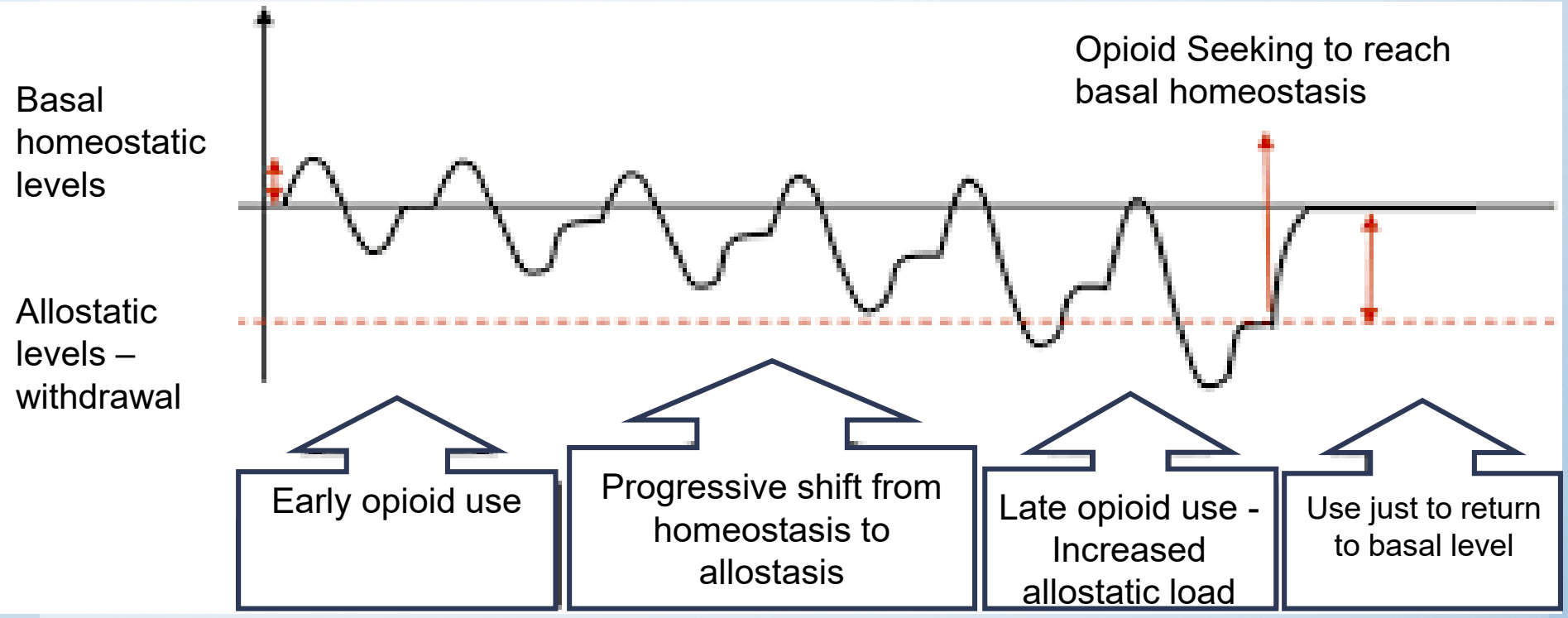
Opioids + Alcohol = potentiated action

- Responsible for many overdose deaths, especially in young people
- Teen alcohol use has long been a rite of passage
- Adding opioids increases the risk of respiratory depression and impaired driving

The cycle of addiction

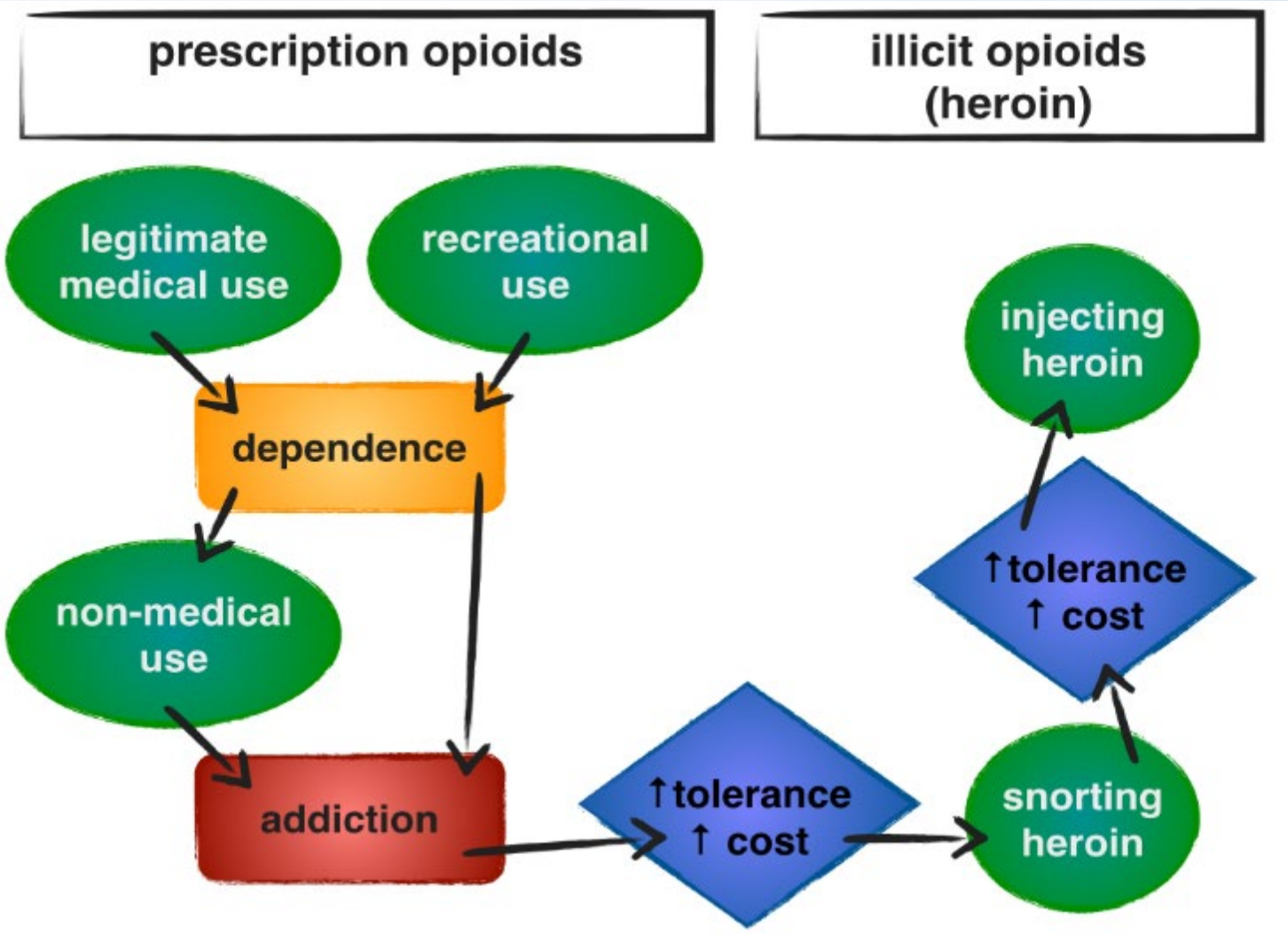


How dependence hijacks the brain



Koob, 2003

Why do some turn to heroin?



Borrowed with permission from NOPE-RI

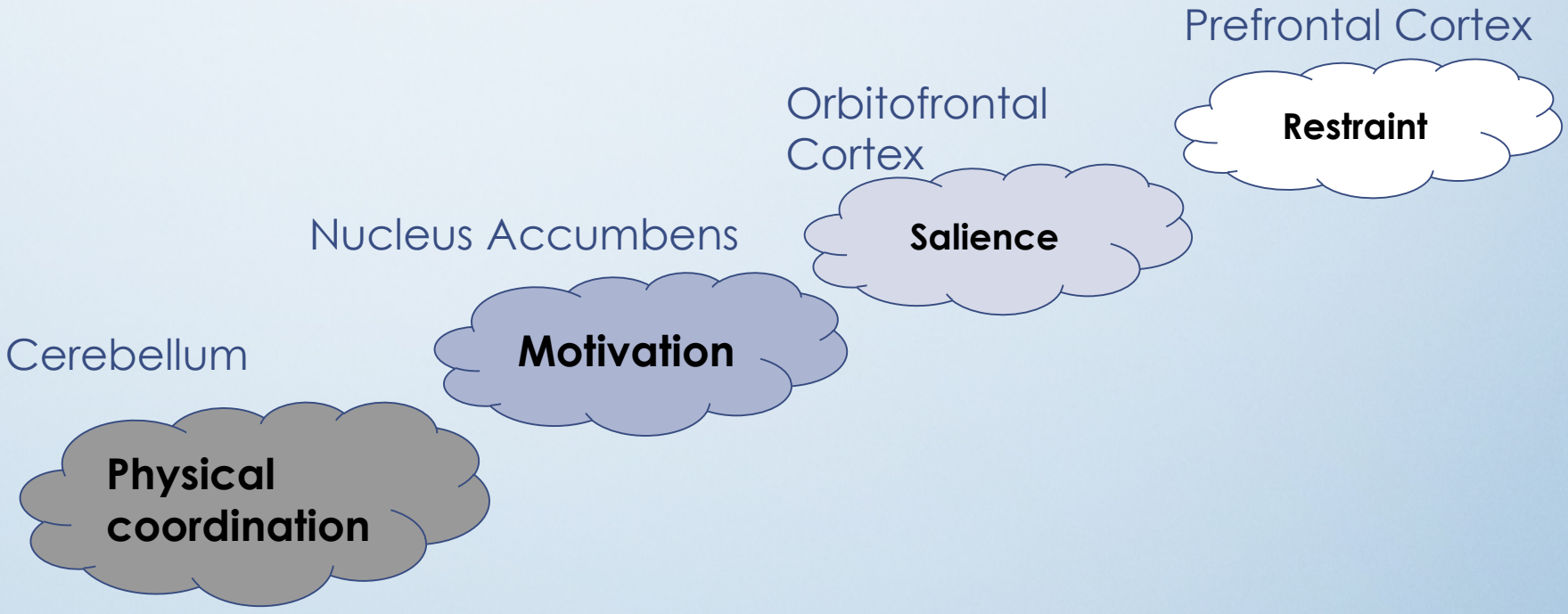
Risk of developing dependence is inversely related to age at first use

9 OUT OF 10

PEOPLE WITH SUBSTANCE PROBLEMS STARTED USING BY AGE 18

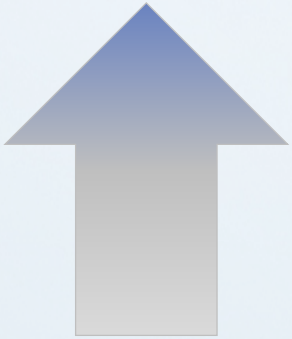
National Center for Addiction and Substance Abuse

The Sensitive Period for Substance Use Initiation – Infancy through young adulthood 0-26 years ish



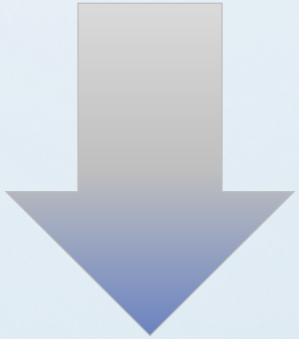
Opioid Tolerance & Physical Dependence

Tolerance and physical dependence are physiological adaptations to chronic opioid exposure



Tolerance:

- Increased dosage needed to produce specific effect
- Develops readily for central nervous system and respiratory depression



Physical Dependence:

- Signs and symptoms of withdrawal by abruptly stopping the opioid, rapid dose reduction, or administration of antagonist

Is Opioid Dependence a Disease?

Two “No” arguments

- It is a voluntary, hedonistic choice
- It is a socially mediated, politically mediated, culturally mediated, behaviorally mediated, environmentally mediated, complex phenomenon. It is not simply an organic brain disease.

Is Diabetes a Disease?

- Behaviorally mediated
- Environmentally mediated
- Socially mediated
- Politically mediated
- Culturally mediated

- Not just an organic pancreatic disease

Dependence and Addiction are complex conditions

- Behaviorally mediated
- Socially mediated
- Politically mediated
- Environmentally mediated
- Culturally mediated
- Emotionally mediated

- Genetically mediated
- Pharmacologically mediated
- Organic brain disease

Addiction is…

- Dependence/Tolerance …… plus behavior
- Characterized by *loss of control*
  - Brain is literally hijacked by cravings to use drugs and prevent withdrawal symptoms
- Requires long-term treatment and management
  - Detoxification ≠ Treatment!
  - High rates of return to use
  - Best evidence for treatment:
    - Replacement, Counseling, or both
- A ***chronic, relapsing disease***
  - *genetic* component
  - May result in *permanent changes in brain structure and function*

Who has DEA license?

- Who can prescribe oxycontin?
- Who can prescribe buprenorphine?
- Who can treat opioid addiction?

- What's the deal with the DEA waiver?
  - Allows for treatment of opioid dependence, use disorder, and addiction in primary care practice.
  - In primary care, not subject to 42-CFR

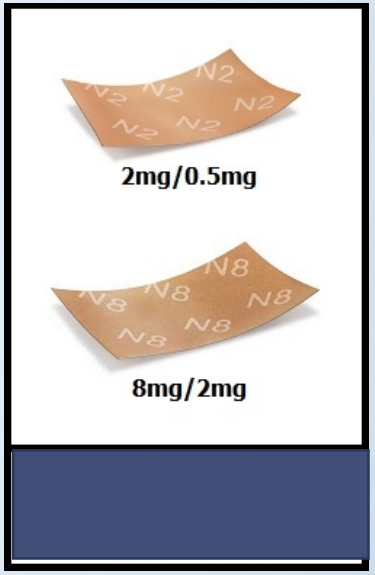
Methadone

- Daily visits
- Counseling/case managem
- Utox, breathalyzer
- More sedation
- Less diversion
- Earn take-homes

- In primary care only use is pain. Cannot prescribe methadone in PC for opioid dependence

Buprenorphine + Naloxone

- Naloxone: opioid antagonist that can cause withdrawal symptoms
- Added to prevent misuse
- Not well-absorbed when used orally
- Noticeable effect if drug is injected
- Buprenorphine without naloxone commonly used in pregnancy

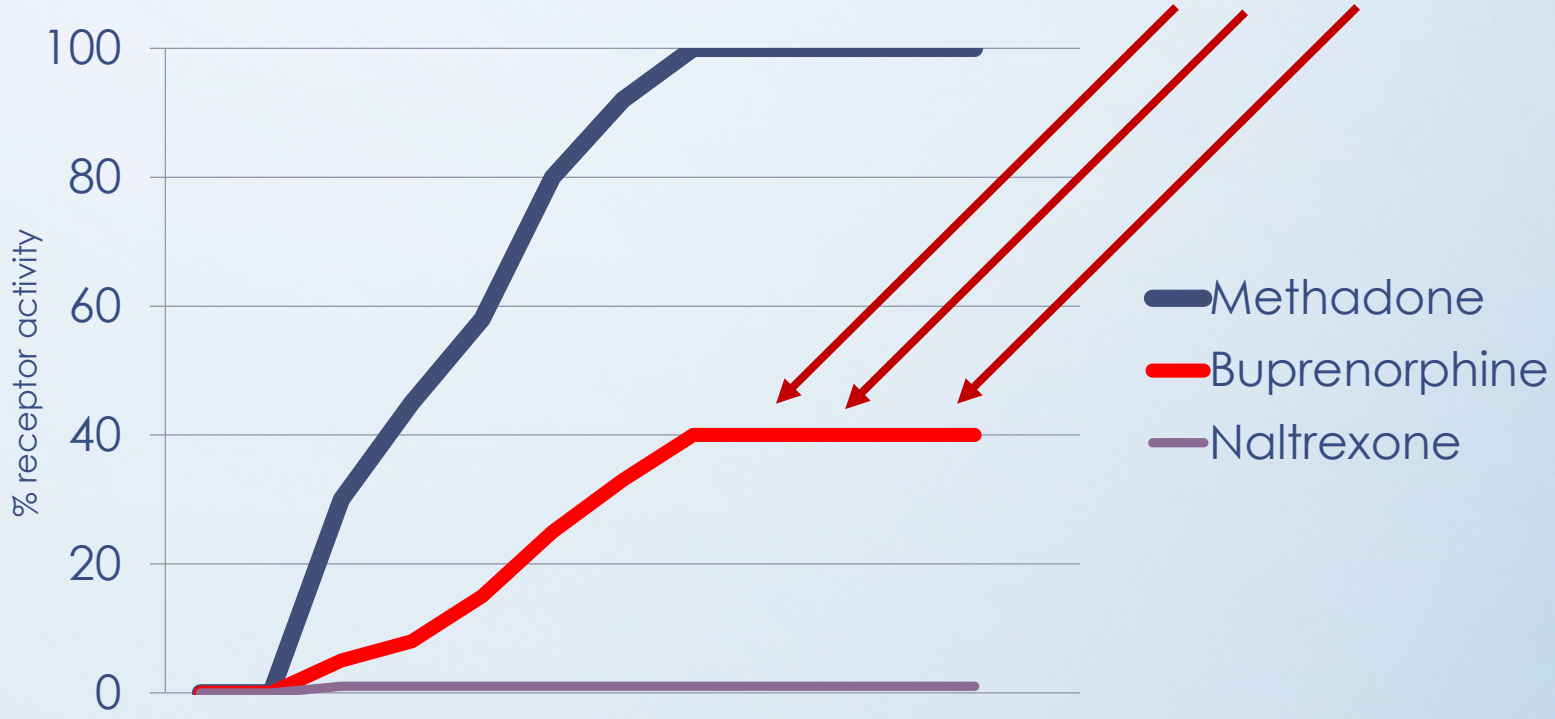


Renner JA, Levonuis P, ed. Handbook of office-based buprenorphine treatment of opioid dependence

Naltrexone

- Oral Naltrexone
  - Effective only in unusually externally motivated patients
- Injectable Naltrexone
  - May be more effective
  - Difficult to initiate retent

Mu opioid receptor activity



Why is buprenorphine a great choice?

- Can be prescribed in primary care offices
- Long half-life prevents roller coaster of withdrawal and craving
- High receptor affinity prevents reinforcement in the event of a relapse
- Partial activity prevents risk of death from respiratory depression
- This drug can stop the cycle of abuse and give people their lives back!

How buprenorphine is prescribed

- Induction phase: may be done in clinic or at home
  - Minimum weekly visits initially
  - Assess response: craving, ongoing misuse, side effects
- Stabilization phase
  - Decreasing frequency of visits
  - Dose adjustments and side effect treatment as needed
- Maintenance phase
  - Physician visits minimum monthly and typically include:
    - Urine toxicology testing
    - Review of prescription drug monitoring program
    - Discussion of relapse prevention and trigger avoidance

Buprenorphine Treatment

- Induction
- Stabilization
- Maintenance

Induction

- Open the *Mu* Receptors. Opioids drop off so buprenorphine can attach
- Stop taking opioids for a day or two. Go into mild to moderate withdrawal
- Start buprenorphine
  - Office induction
  - Home induction
  - Both are safe and effective
- Patients feel better. Eliminates withdrawal, treats pain

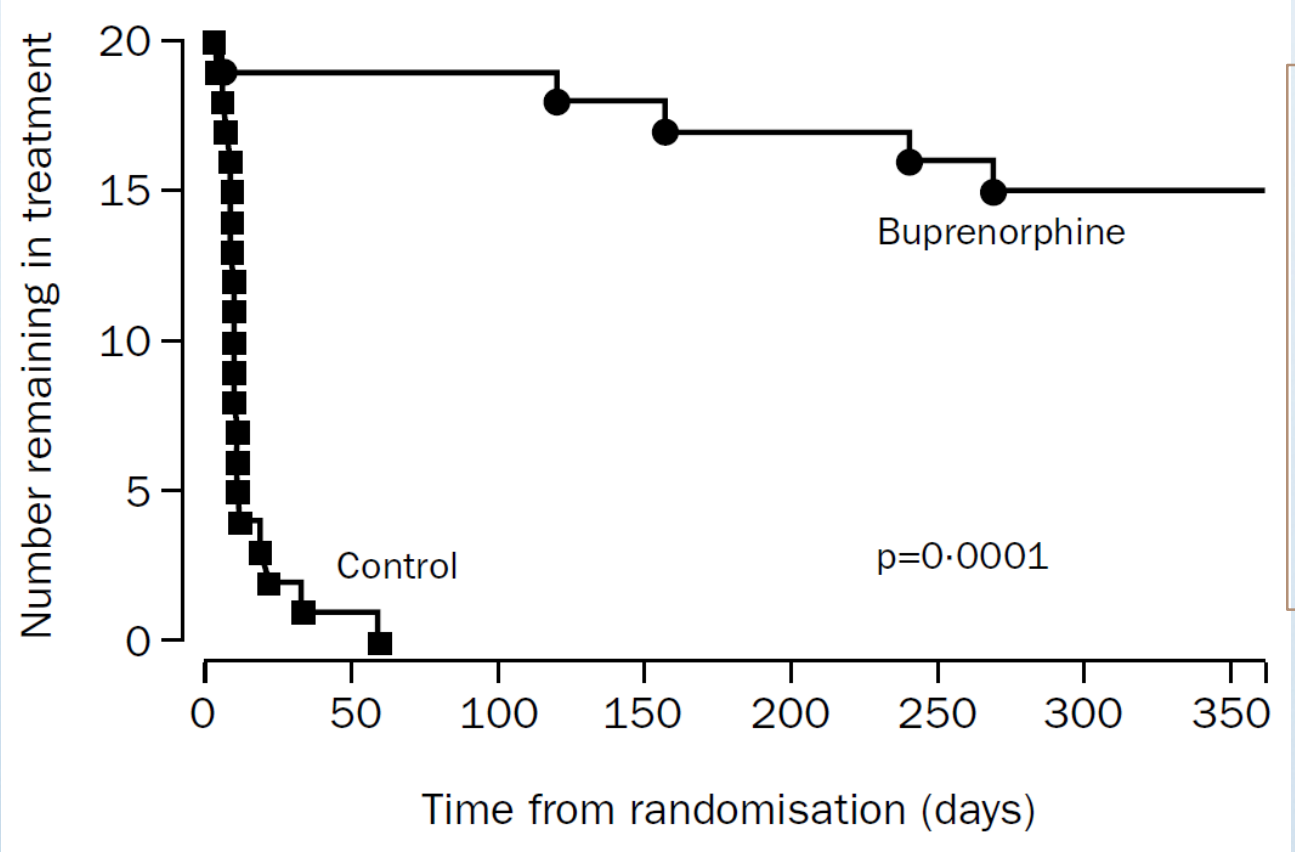
Stabilization

- 1 week to 2 months
- Adjust buprenorphine dose
  - Minimize withdrawal symptoms
- Buprenorphine is Schedule III drug.
  - Safe, can be called out to pharmacy. Low low low risk of overdose
- Patient can adjust dose to maximize effect and minimize side effects
  - Constipation, headache, withdrawal
- Check in with patient every few days – phone call

Maintenance

- 2 months to life-time
- How long is treatment
  - We don't know. No data to provide guidance on how long to treat a patient with buprenorphine/naloxone maintenance.
    - <16 weeks of treatment is associated with high levels of withdrawal
    - Patients can be retained long term; approximately 75% retention at one year with buprenorphine maintenance (Kakko et al., 2003)
  - Continue maintenance as long as patient is benefitting from treatment (opioid/other drug use, employment, educational goals pursued, improvement in relationships, improvement in medical/mental illnesses, engaged in psychosocial treatment).
  - Celebrate with patient!
- Chronic condition

Buprenorphine Maintenance vs Taper Method (Heroin Use Disorder)



Results

Completion 52 week trial:

- taper = 0%
- maintenance = 75%

Mortality:

- taper = 20%

Kakko J et al. *Lancet.* 2003

Why Primary Care and Family Medicine?

- We are unafraid of complexity
- We are willing to try new things
- We understand relationships
- We know how to work in teams

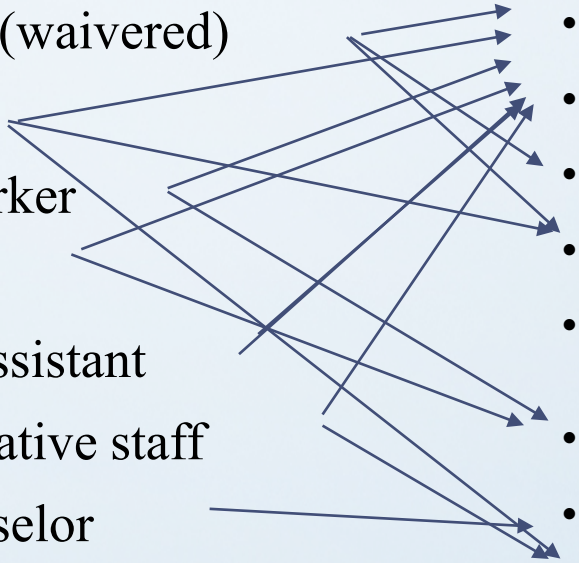
Why primary care is perfect for MAT

- Providers and staff have long-term relationships with patients
- No stigma to having your truck parked at your primary care provider's office
- PCPs are great at managing chronic conditions, like hypertension and diabetes

Maximize Collaborative Care

Team

- Physician (waivered)
- Nursing
- Social worker
- Counselor
- Medical assistant
- Administrative staff
- Peer counselor



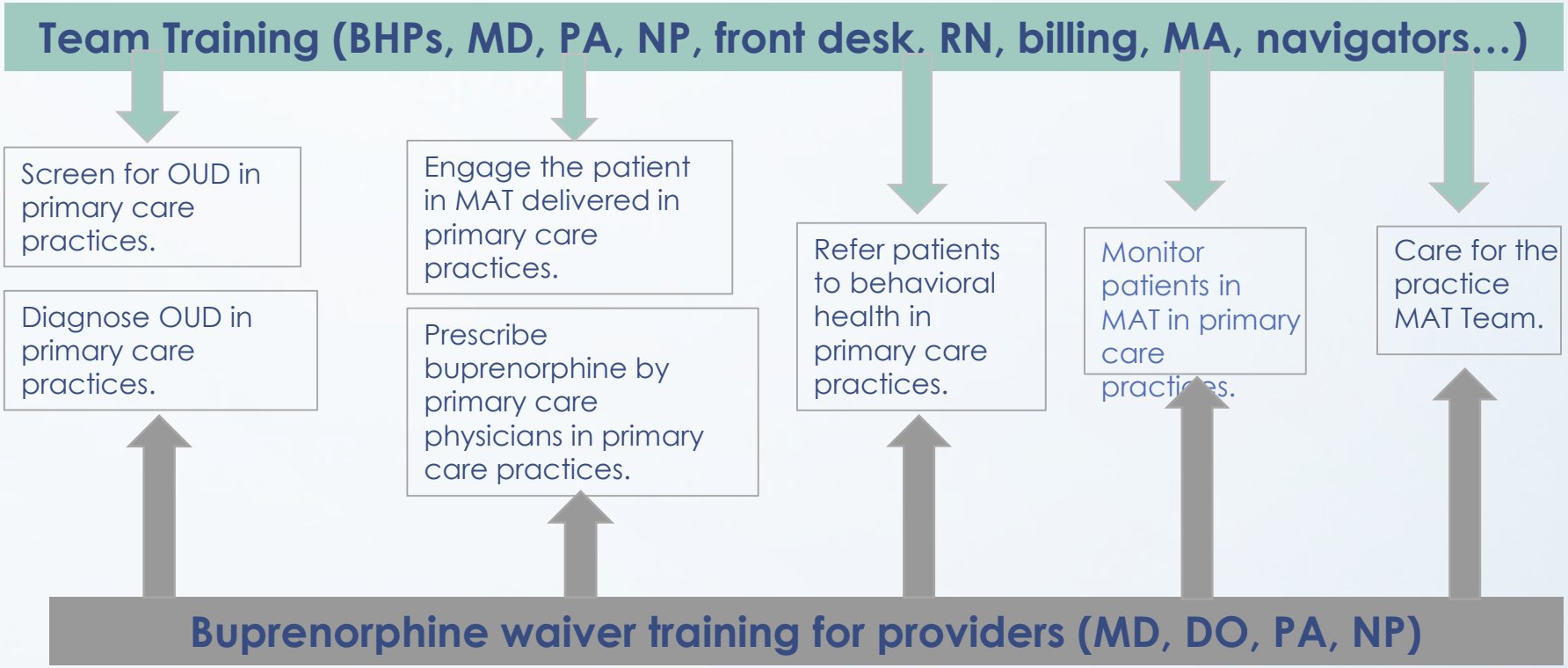
Care responsibilities

- Screening and intake
- Pretreatment assessments
- Treatment planning
- Medication management
- Monitoring (UDTs, pill counts, PDMP checks, OpiSafe)
- Individual and/or group counseling
- Drop in groups
- Family support
- Relapse prevention
- Recovery Monitoring

Alford DP et al. *Arch Intern Med.* 2011.

IT MATTTRs:

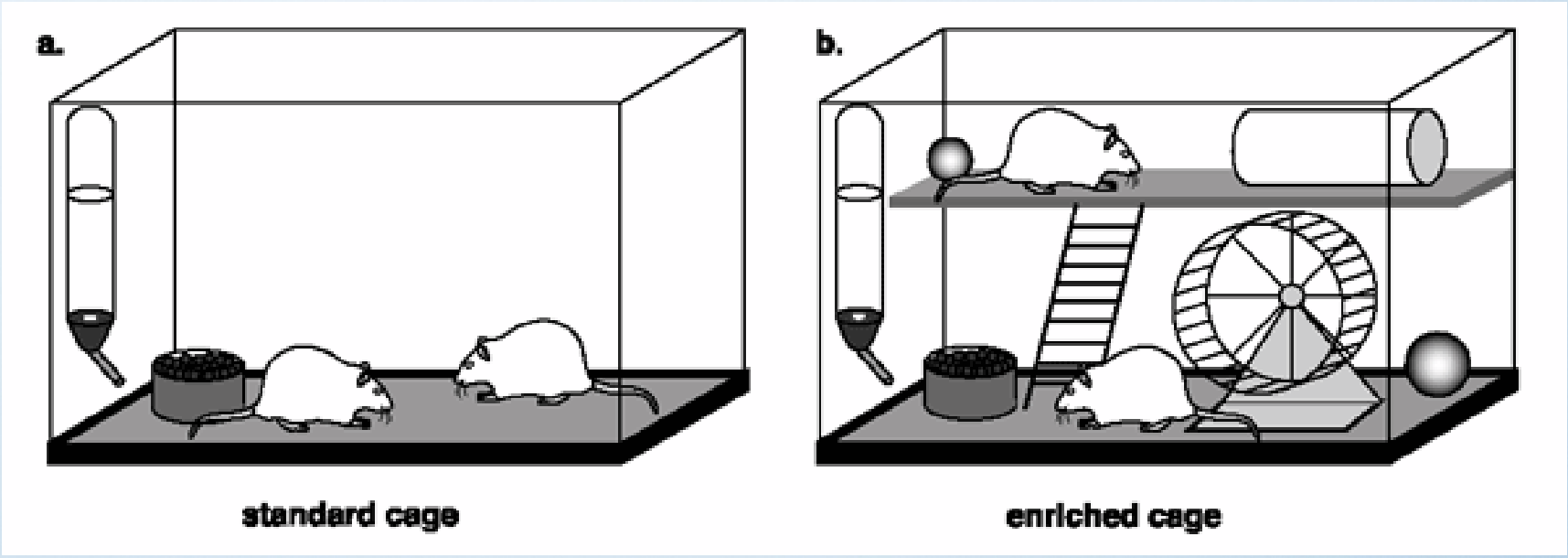
Creating the practice environment conducive to care for OUD using MAT



Implementation Check Lists

		For practices with a MAT buprenorphine prescriber	*For practices without a MAT buprenorphine prescriber*
1	Physician, nurse practitioner, or physician assistant prescriber with buprenorphine waiver certification	☐	-
2	Patient consent form for buprenorphine	☐	-
3	Patient treatment agreement and contract	☐	-
4	Diversion Control plan developed and in place	☐	-
5	Urine drug testing protocol and system	☐	-
6	Designated MAT practice team (physician, nurses, etc.)	☐	-
7	MAT Team with regular schedule team meetings	☐	-
8	Emergency management protocol	☐	-
9	Enrolled 1 patient in MAT	☐	-
10	Enrolled 10 or more patients in MAT	☐	-
11	Staff trained in MAT (ECHO or SOuND Team Training) & how many? _____	☐	☐
12	Referral protocol for behavioral health (list of providers with contact and appointment information)	☐	☐
13	Behavioral Health – integrated care model, or in house – or signed treatment/management agreements with at least one external behavioral health provider	☐	☐
14	Psychosocial support/connection identified and referrals available (i.e. 12-step, community organizations, faith community)	☐	☐
15	Payment schedule with diagnostic and billing codes	☐	☐
16	Screening process (and screening tool) for patients currently on opioids, new opioid prescriptions, identification of illicit use	☐	☐
17	Patient assessment checklist	☐	☐
18	Opioid registry and tracking system (Internal, PDMP, OpiSafe)	☐	☐
19	MAT resource/protocol book for practice - provided by IT MATTTRs	☐	☐
20	MAT resource book/handouts for patients	☐	☐
21	Opioid overdose prevention kit	☐	☐
22	Side effect management protocol	☐	☐
23	Referral protocol to practice with buprenorphine prescriber	-	☐
24	Signed treatment/management agreement with practice with buprenorphine prescriber	-	☐
25	Referred 1 or more patient for MAT at another facility	-	☐
	Notes:		

Rat Park



"The opposite of addiction is not sobriety. The opposite of addiction is connection"

Johan Hari - TED Talk

THERE IS NOTHING EASY ABOUT PRESCRIPTION DRUG ABUSE...

EXCEPT HOW ABUSERS GET THEIR DRUGS.

70% of abusers get their drugs from friends or family.

Prescription drug abuse is over **15 times deadlier** than meth, heroin, and cocaine use combined.

Keeping your prescriptions safe can save lives.

SIGN THE PLEDGE TODAY · **RESOLVEMONTANA.ORG**

RESOLVE
END PRESCRIPTION DRUG ABUSE

Brought to you by the Montana Attorney General's Office.

Engaging the whole community

Boot Camp Translation (BCT)

- A community-based campaign was developed to change the conversation in rural communities around OUD, and increase awareness, knowledge, and utilization of MAT in rural local primary care practices
- 2 **Boot Camp Translation (BCT)** groups were formed to translate medical information around OUD and MAT into concepts, messages, and materials that are meaningful and actionable to community members

Pages of notes and facilitated discussions to determine how best to get messages on OUD and MAT out to rural communities in rural eastern Colorado (HPRN).

Reviewing, editing, and further developing draft materials for the SLV IT MATTTRs intervention.

Engaging everyone
BCT Participants

Eastern Colorado = 26 participants

- Providers
- Teachers
- Social Services
- Long-term residents
- Concerned parents
- Hispanic community
- Mental health suboxone team
- Law enforcement
- Youth
- Church pastor
- Pharmacist
- MAT patient
- Community Advisory Council

San Luis Valley = 15 participants

- County public health director
- Pharmacist & primary care provider
- Clinical psychologist
- School counselor
- Hospital CEO
- Community college student life director
- Providers
- Law enforcement
- Youth BH services
- Wise elder, concerned parents & grandparents
- Civic leaders
- Business owner
- MAT patient

Eastern Colorado: Results

Themes from the community

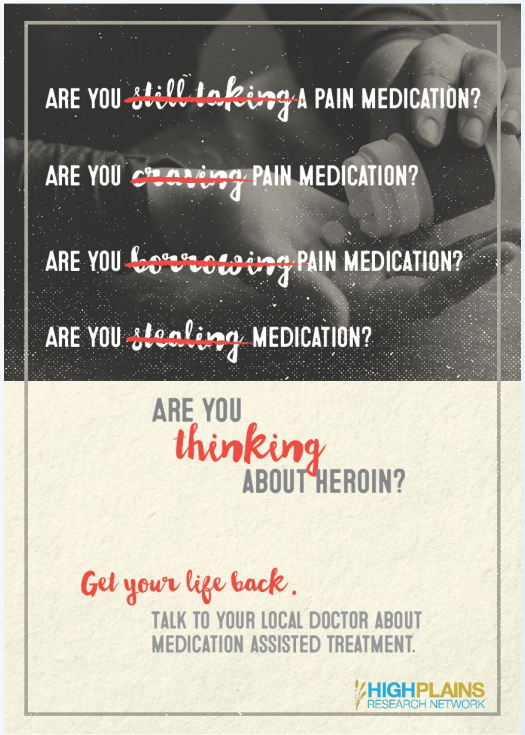
- The statistics are more alarming than we realized. People need to know that OUD is a big deal in our communities.
- From a neurobiological perspective, addiction hijacks the brain. It's more about avoiding withdrawal than about getting high.
- We want people to think about their own prescription opioid behavior – taking and sharing.
- Let's use local language first, then introduce formal terms. First "addiction" then "use disorder;" first "pain medications" then "opioids."
- MAT with buprenorphine means treatment that is local, effective, and outpatient. This is game-changing for our rural communities.

"Main Messages"

- Deaths from opioid drug overdose increased 300% in eastern Colorado over the past decade.
- How long have you been taking your pain medication (Percocet, OxyContin, Hydrocodone)?
- When addicted, people take opioid pain medicines or heroin just to feel normal, not to get high.
- Get your life back – with local outpatient care.
- Talk to your doctor about medication assisted treatment.

Eastern Colorado: Materials

- Posters & Inserts - businesses, schools, and sports event programs, church bulletins
- Drink Coasters – restaurants, bars, coffee shops
- Newspaper articles, letter to local judges, movie theater public service announcement
- Website: www.haveyoumetmat.com (check it out!)



Bulletin and program inserts

What can you do?

- Learn how to prescribe buprenorphine
  - And naloxone – otc in many states. Prevents overdose death
  - And naltrexone – monthly IM injection, fair success, used more for alcohol use disorder
  - Buprenorphine is excellent pain management choice. Long acting, no withdrawal, safer, refills,
- Create a practice culture that embraces patients who are suffering from opioid dependence and use disorder
- Engage your community to address opioid dependence

What can you do?

First step.

- Sign the Montana pledge to help end prescription drug abuse.
- Get involved
- Get your clinic involved
- Get your hospital involved
- Get your providers involved
- Your nurses, administrator, front office.
- Get your community involved
- Your police and teachers and business owners, pastors and counselors and coaches
- Get involved.

http://resolvemontana.org/

Check out our websites for information about the project:

www.itmatttrscolorado.org

www.haveyoumetmat.com

www.MATintheSLV.org