

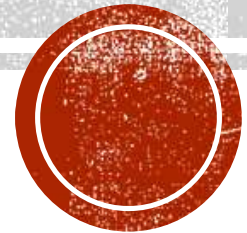
BUPRENORPHINE 201: IHRC SUMMIT 2019

Alison Lynch, MD

Tony Miller, MD

Andrea Weber, MD

Monica Wilke-Brown, LMSW



OUTLINE - 1:00 PM TO 5:00 PM

- Buprenorphine Review
- Updates in Buprenorphine: Populations, Maintenance Treatment, Chronic Pain
- Cases for Small Group Discussions

Break

- Harm Reduction in Clinical Practice
- IDPH Presentation – Treatment Programs
- Policy and Advocacy Breakout Discussions

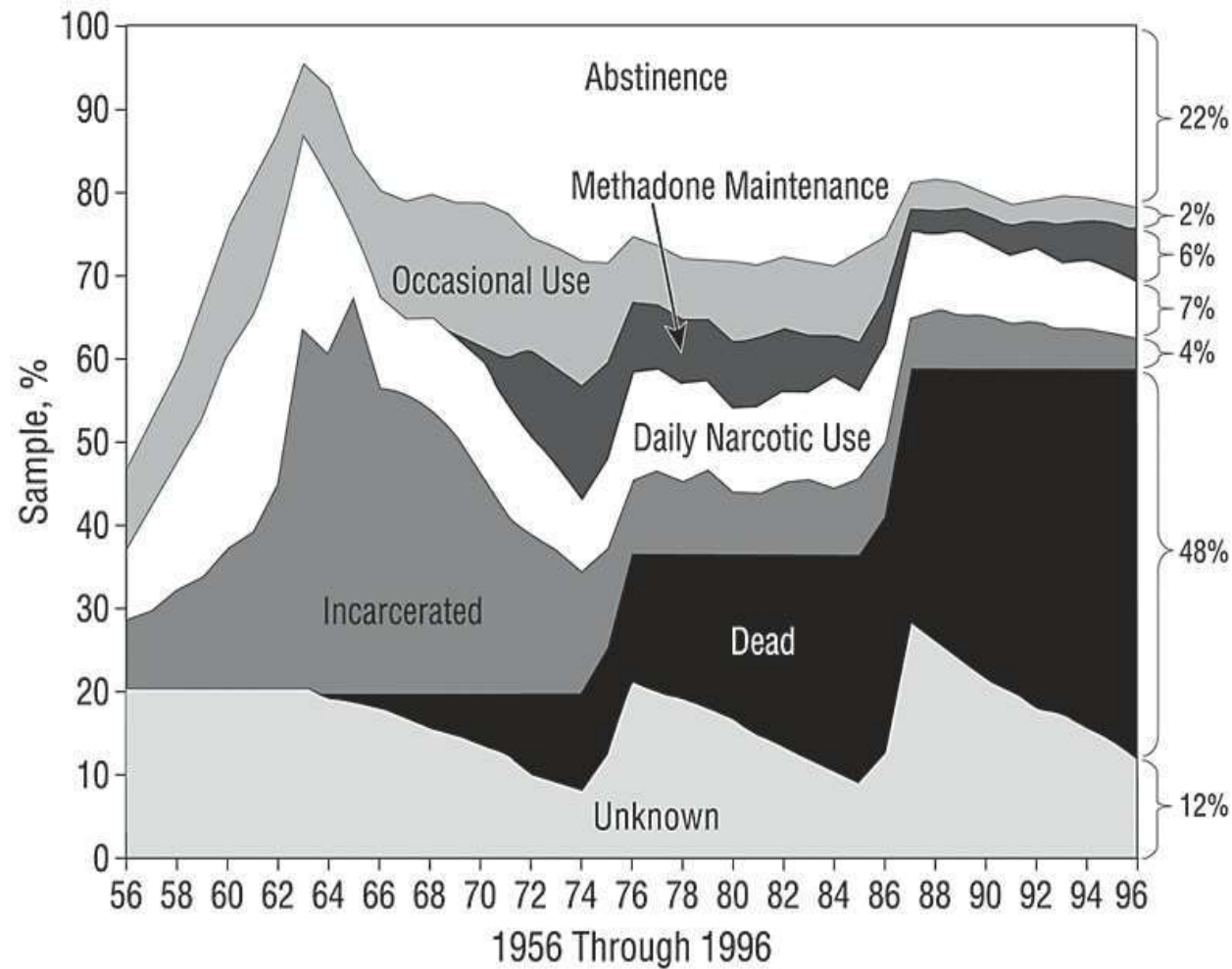




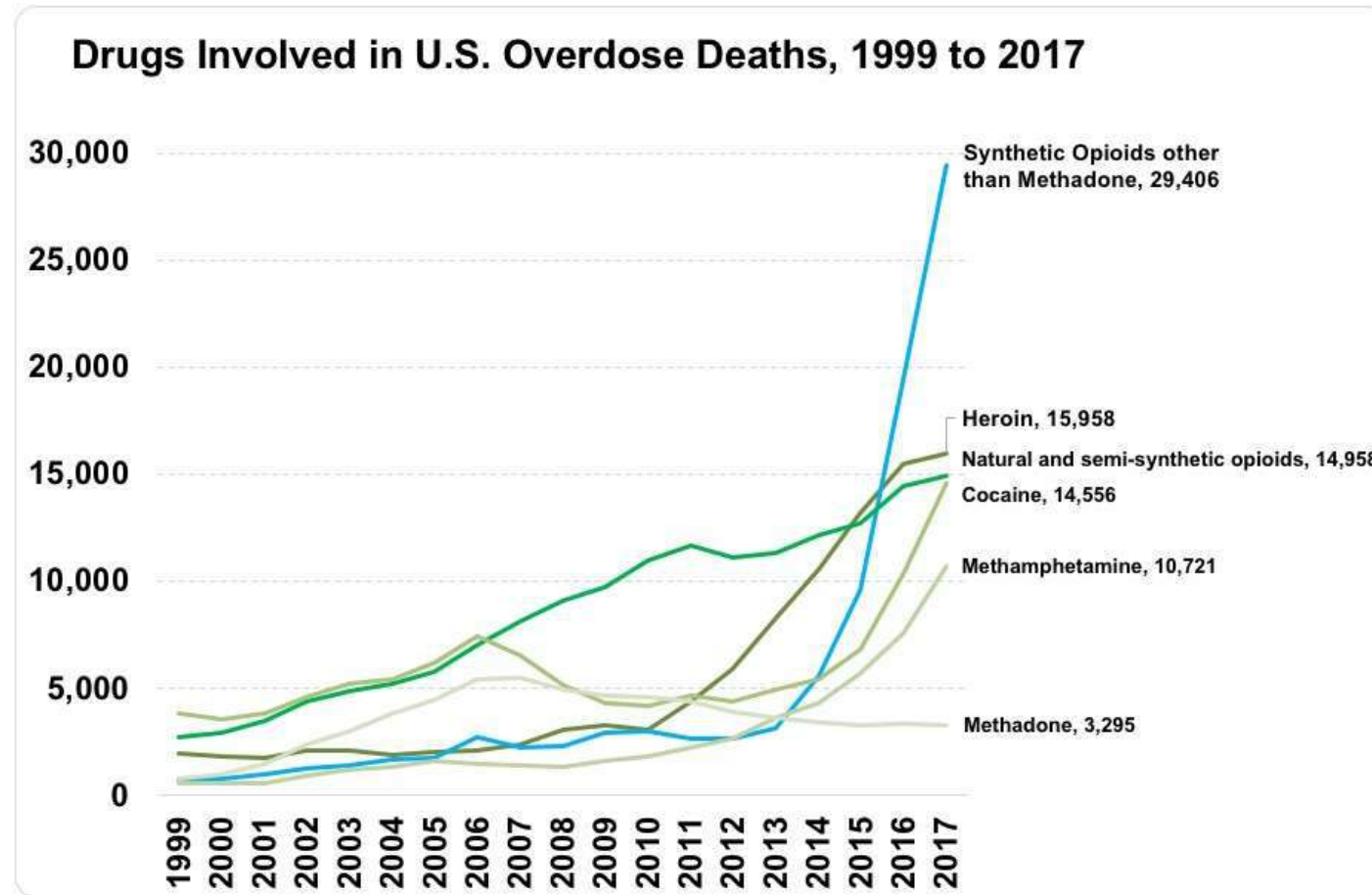
BUPRENORPHINE REVIEW

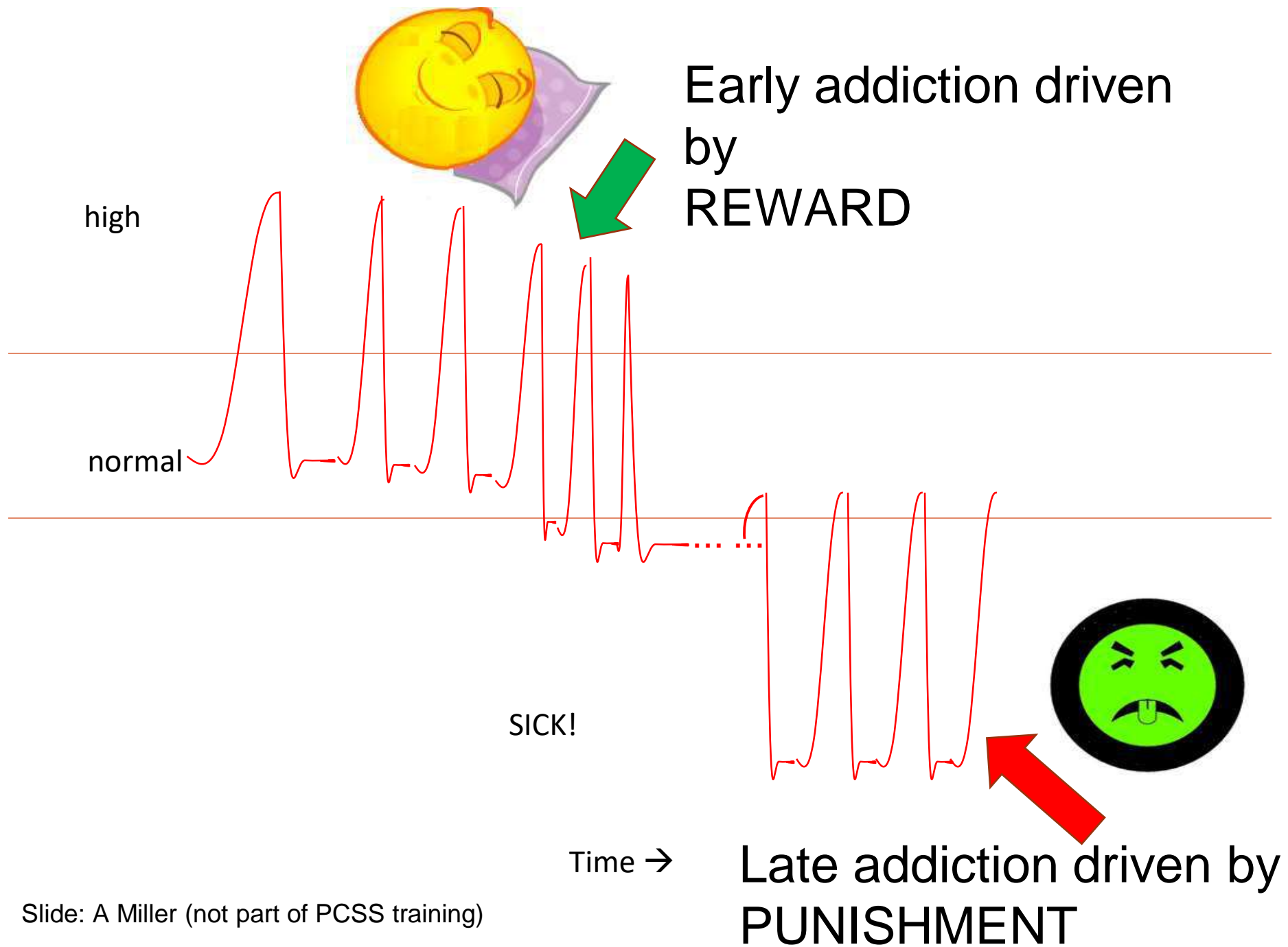


581 MEN WITH HEROIN ADDICTION FOLLOWED 33 YEARS



OPIOID EPIDEMIC: 2ND AND 3RD WAVES





Slide: A Miller (not part of PCSS training)



high



normal



sick



Time →



MAJOR FEATURES OF METHADONE

Full Agonist at mu receptor

Long acting

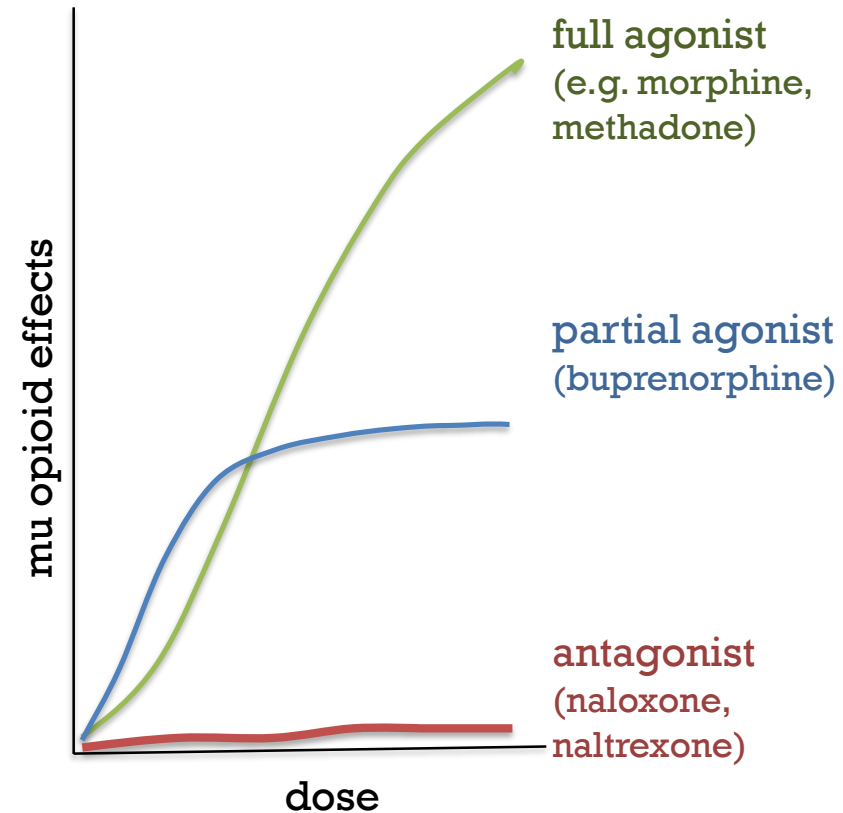
- Half-life ~ 15-60 Hours

Weak affinity for mu receptor

- Can be displaced by partial agonists (e.g. buprenorphine) and antagonists (e.g. naloxone, naltrexone), which can both precipitate withdrawal

Monitoring

- Significant respiratory suppression and potential respiratory arrest in overdose
- QT prolongation



MAJOR FEATURES OF BUPRENORPHINE

Partial agonist at mu receptor

- Comparatively minimal respiratory suppression and no respiratory arrest when used as prescribed

Long acting

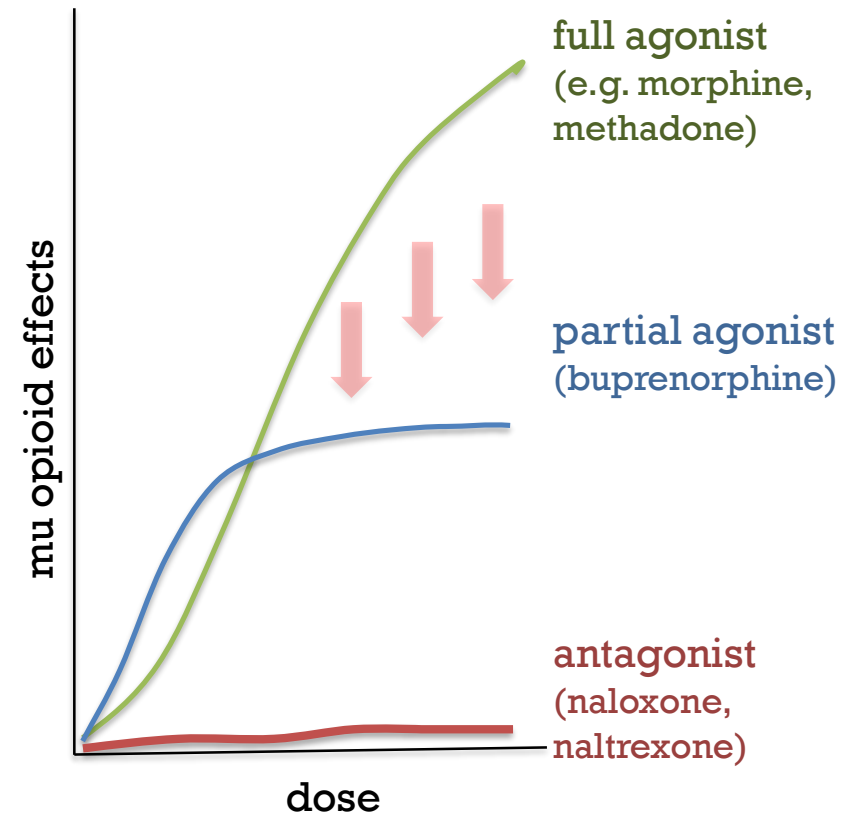
- Half-life ~ 24-36 Hours

High affinity for mu receptor

- Blocks other opioids
- Displaces other opioids
 - Can precipitate withdrawal

Slow dissociation from mu receptor

- Stays on receptor for a long time



MAJOR FEATURES OF NALTREXONE

Full Antagonist at mu receptor

- Competitive binding at mu receptor

Long acting

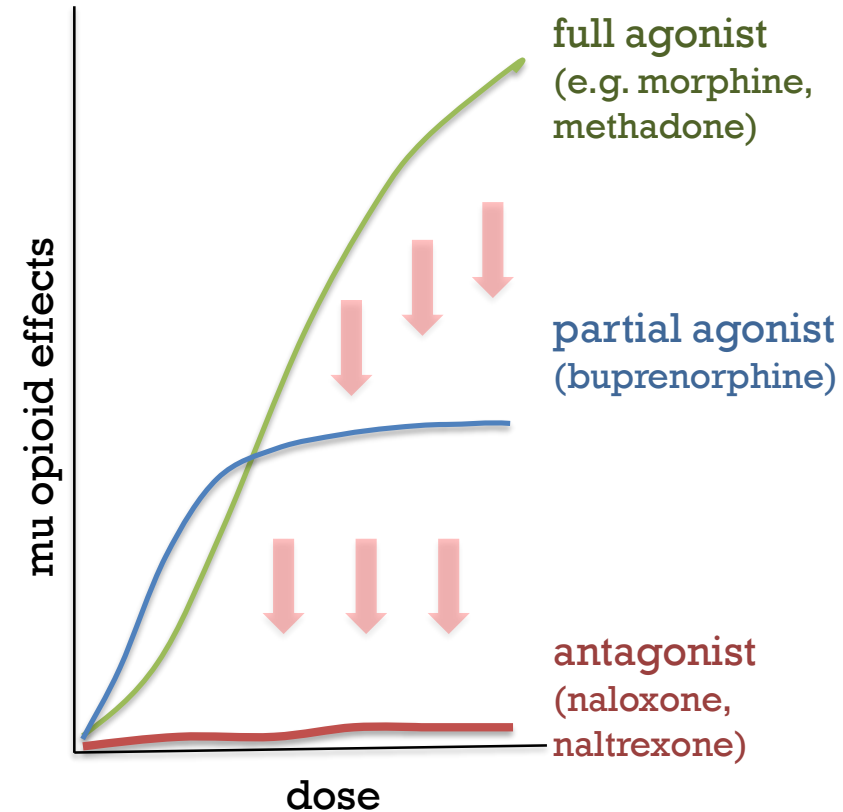
- Half-life:
 - Oral ~ 4 Hours
 - IM ~ 5-10 days

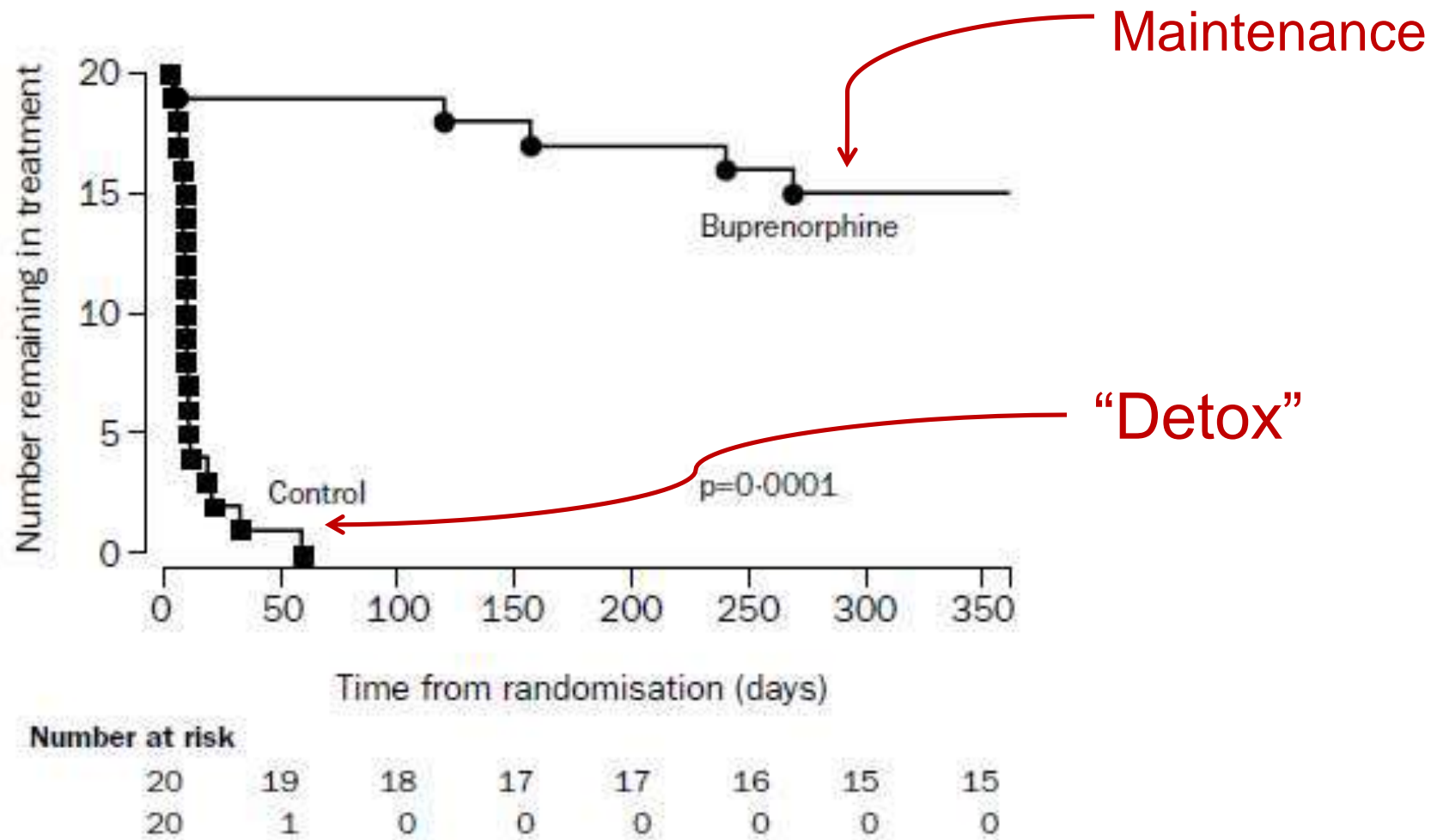
High affinity for mu receptor

- Blocks other opioids
- Displaces other opioids
 - Can precipitate withdrawal

Formulations

- Tablets: Revia®: FDA approved in 1984
- Extended-Release intramuscular injection: Vivitrol®: FDA approved in 2010



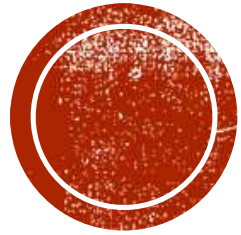


MULTIPLE CHOICE QUESTION

What is the primary reason buprenorphine is combined with naloxone?

- A. To increase opioid blockade
- B. To prevent overdose
- C. To reduce diversion
- D. To lower the euphoric effects of buprenorphine





UPDATES IN BUPRENORPHINE

Special Populations –Pregnancy, Adolescents

Maintenance treatment – Dosing, Duration

Chronic pain

PREGNANCY TOPICS

Pilot Study

Naltrexone Treatment for Pregnant Women With Opioid Use Disorder Compared With Matched Buprenorphine Control Subjects

- Wachman, Elisha M. et al., **Clinical Therapeutics**, in press (2019)
- Single site, retrospective cohort study of 19 mother-infant dyads taking NTX(6) or BUP(13), compared pregnancy and infant outcomes
- Findings: 0 infants in the NTX group had NAS, 92% of infants in BUP group had NAS, no other statistically significant differences found



ADOLESCENT TOPICS

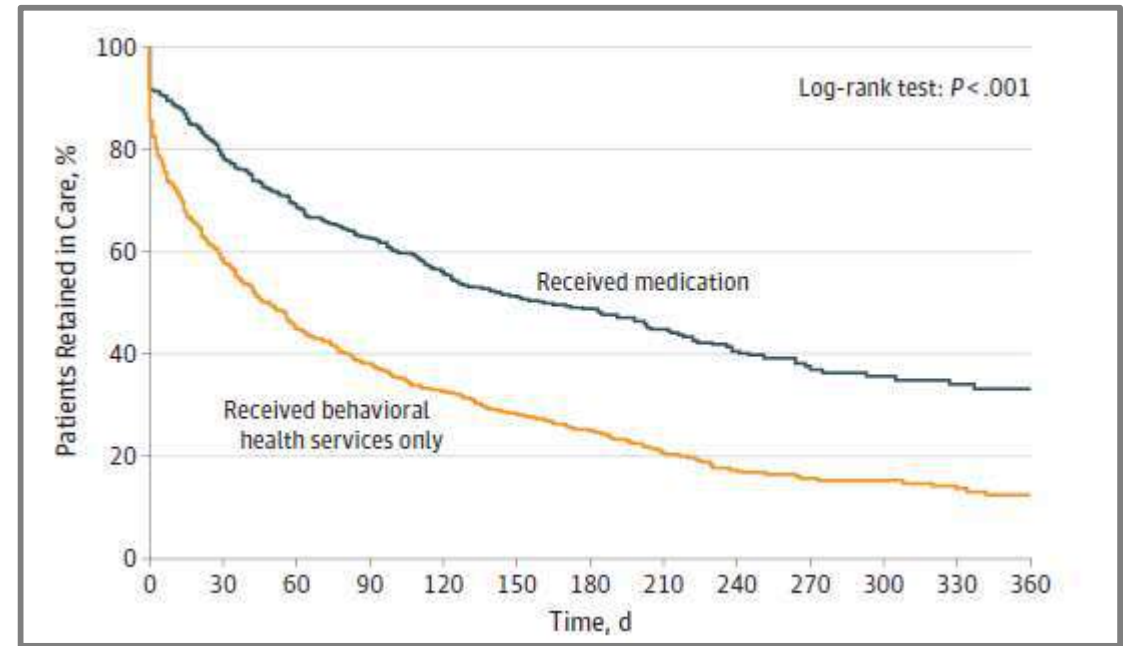
JAMA Pediatrics | Original Investigation

Receipt of Timely Addiction Treatment and Association of Early Medication Treatment With Retention in Care Among Youths With Opioid Use Disorder

Scott E. Hadland, MD, MPH, MS; Sarah M. Bagley, MD, MSc; Jonathan Rodean, MPP; Michael Silverstein, MD, MPH; Sharon Levy, MD, MPH; Marc R. Larochelle, MD, MPH; Jeffrey H. Samet, MD, MA, MPH; Bonnie T. Zima, MD, MPH

Treatment retention:

- 123 days (BUP), 150 days (NTX), 324 days (MMT),
- 67 days (no MAT).
- Any medication improved retention better than behavioral health services alone.



ADOLESCENT TOPICS

Medications for Maintenance Treatment of Opioid Use Disorder in Adolescents: A Narrative Review and Assessment of Clinical Benefits and Potential Risks

DEEPA R. CAMENGA, M.D. M.H.S.,^{a,*} HECTOR A. COLON-RIVERA, M.D.,^{b,c} SRINIVAS B. MUVVALA, M.D., M.P.H.^d

- Few studies on medications for OUD in adolescents.
- MMT appears to promote treatment retention with heroin use disorders.
- BUP improves likelihood of abstinence from opioids and treatment retention.
- Limited data suggests NTX is safe and feasible for adolescents.
- **Risks of untreated OUD FAR OUTWEIGH the risks of any of the medications.**



DURATION OF TREATMENT

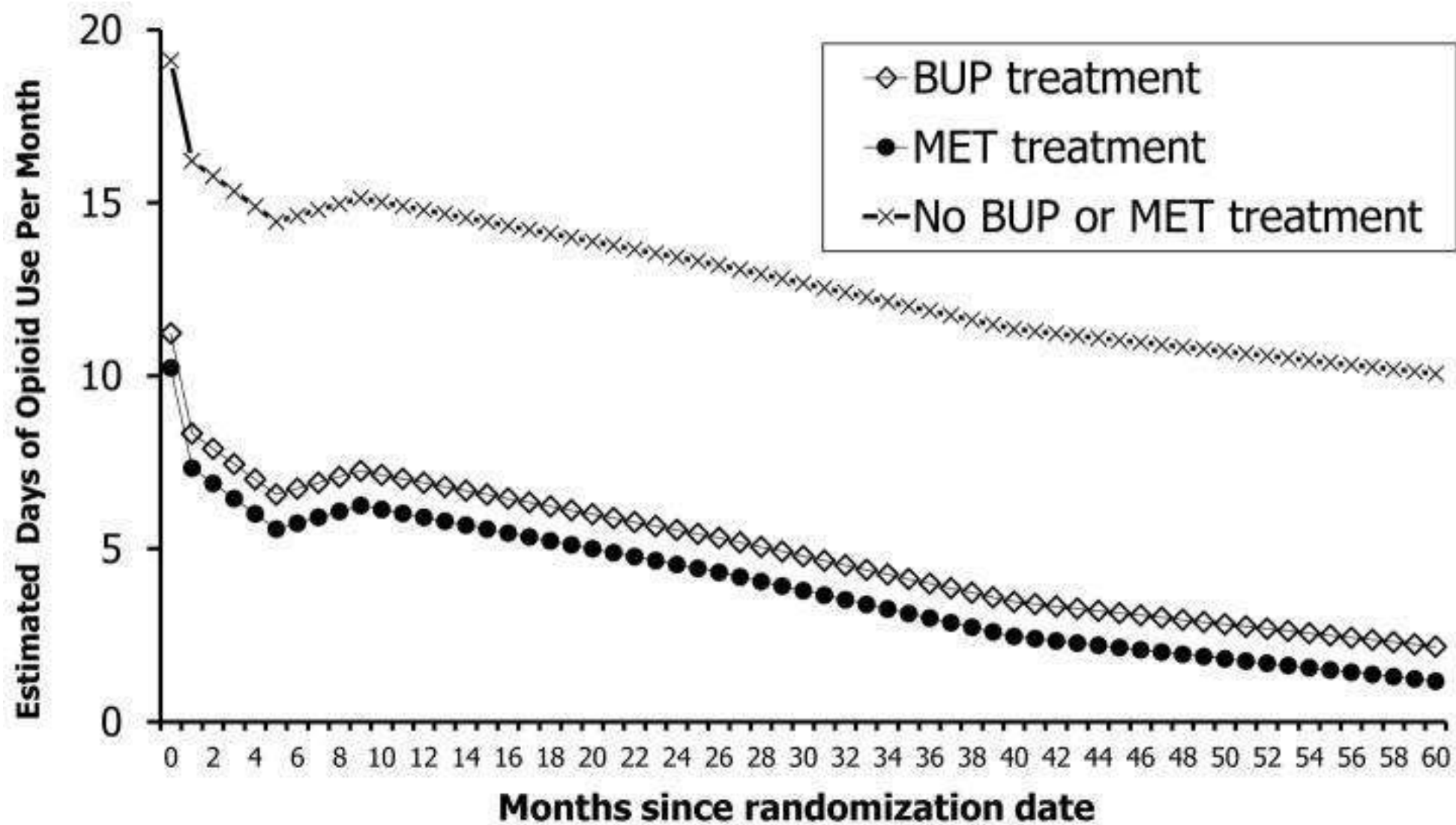
- Controlled trials comparing durations of buprenorphine treatment uniformly support longer treatment over shorter treatment
 - Kakko et al 2003 1 year > 1 wk (Kakko et al **Lancet** 2003; 361: 662–68)
 - POATS main trial 12 wk > 4 wk (Weiss & Rao **Drug Alc Dep** 2017; 273:S48-54)
 - Yale primary care 14 wk > 4 wk (Fiellin et al **JAMA IM** 2014; 174: 1947-1954)
- Improved outcomes in consistent treatment over a year vs. shorter or discontinuous treatment.
 - Pennsylvania Medicaid Observational Data (Lo-Ciganic et al **Addiction** 2016; 111:892–902)
- What about longer than a year? How much longer?



DURATION OF TREATMENT

Study	Follow-up	Outcome
POATS Follow-up Study (Weiss & Rao Drug Alc Dep 2017; 273:S48-54)	3.5 year	“80% of participants receiving opioid agonist treatment at both months 18 and 42 had abstained from illicit opioids in the previous month, compared to abstinence rates of 37% and 50% among those not receiving agonist treatment at months 18 and 42, respectively”
French primary care, buprenorphine (Dupuoy et al Ann Fam Med 2017; 15:355-358)	7 year	Mean duration of treatment: 680 days “Compared with being in treatment, being out of treatment was associated with a markedly increased risk of death (hazard ratio = 29.04)”
START Study, methadone vs buprenorphine (Hser et al Addiction . 2016; 111:695–705)	2-8 year	Treatment with methadone or buprenorphine associated with decreased opioid use compared to not in treatment



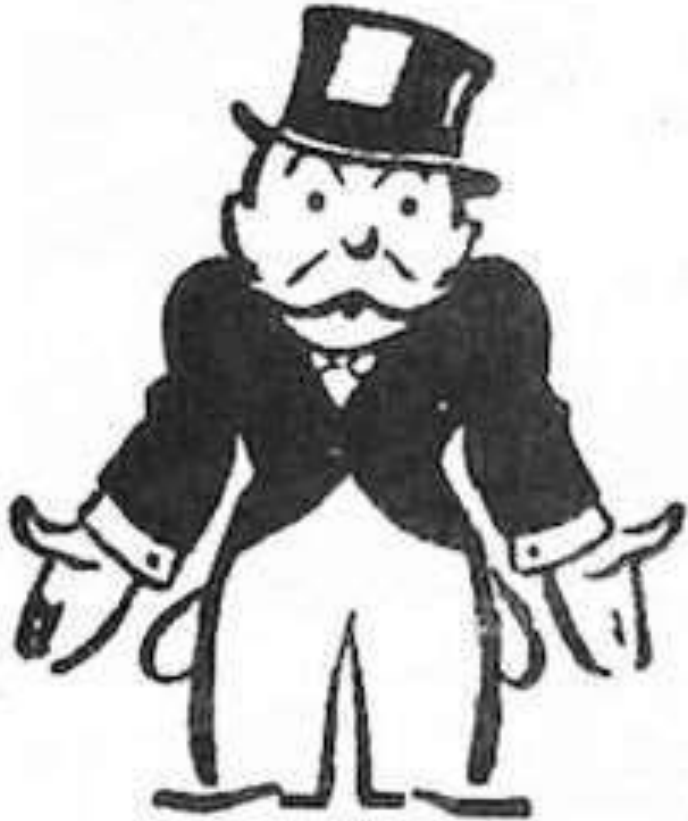


MAINTENANCE DOSE

- Too little dose – too early discontinuation? (Observational study n=89)
 - Muruganadam et al **Asian J Psychiatry** 2019; 44:58-60
 - Treatment adherence 3 times higher on ≥ 6 mg/day compared to < 6 mg/day in initial 6 weeks of treatment.
- Review of claims data (2982 matched pairs drawn from pop of 15206)
 - Khemiri et al **Postgraduate Medicine** 2015; 126:113-120
 - >15 mg per day “had a significantly lower probability of discontinuing treatment, lower probability of psychiatric hospitalizations, and fewer inpatient psychiatric hospitalization days compared with lower dosed patients.”



TAPERING AFTER MAINTENANCE



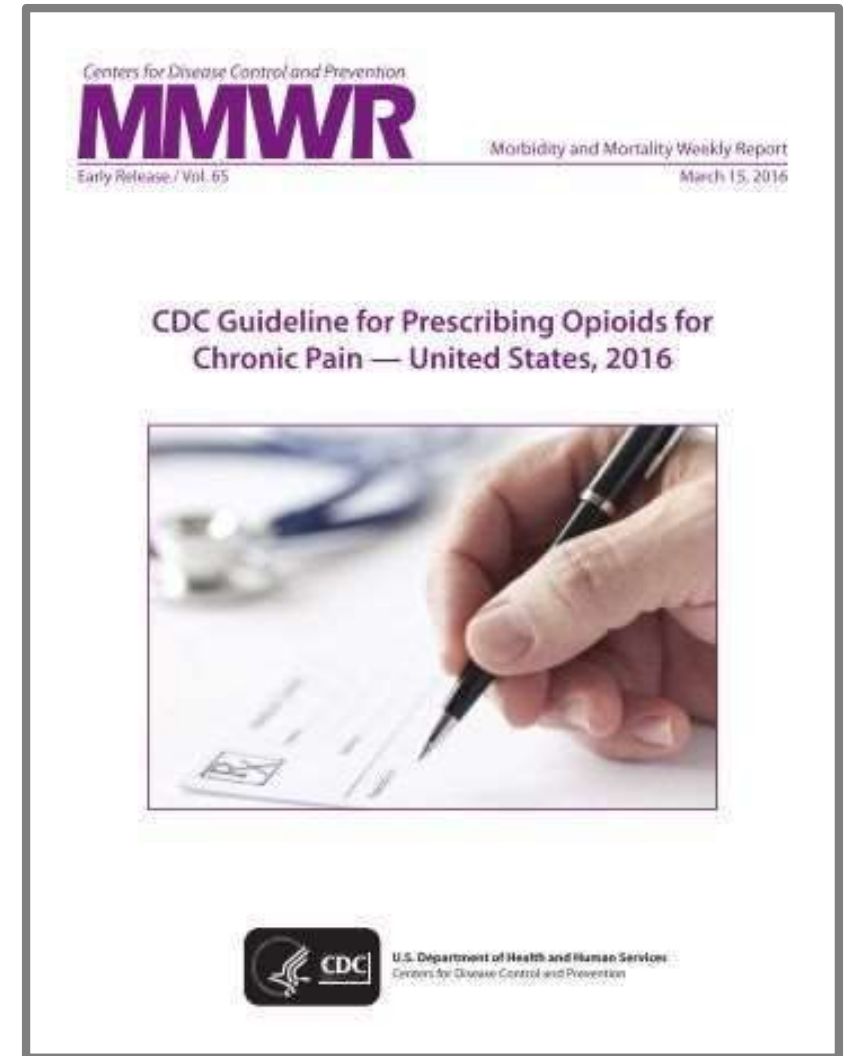
Additional research is required:

- Ideal length of treatment with opioid agonists
- Optimal tapering strategies after long-term remission and wish to discontinue agonist treatment
- Efficacy of non-pharmacotherapy treatment options (including residential treatment).



CHRONIC PAIN

- “Legacy patients” – chronic opioid use, without obvious use disorder, prior to new CDC opioid prescribing guidelines 2016
- Offer/recommend taper strategy to balance benefits vs harms
 - Reduce risk vs taper to discontinuation
- Pain often does not worsen and often decreases
 - Opioid induced hyperalgesia, sedation, mood effects
 - Taper individually and add adjunctive therapy PRN to minimize withdrawal
 - Abrupt withdrawal: pain, insomnia, dysphoria, suicidality



CHRONIC PAIN - BUPRENORPHINE

- Transdermal and Buccal forms – FDA approved for moderate-to-severe chronic pain
- All other versions of buprenorphine – off-label for chronic pain
- If using buprenorphine ONLY for chronic pain (without an opioid use disorder), do NOT need a DATA waiver.
- Subjective improvements in pain, function, sleep, and constipation.
- Kappa opioid receptor antagonism – anti-anxiety/anti-depressant properties?



CHRONIC PAIN - BUPRENORPHINE

OVERALL: Buprenorphine similar in outcomes as other opioids with chronic pain, but with better side effect profile reduced harm.

- Considerations of transitioning to/using buprenorphine for pain:
 1. Not tolerating opioid taper
 2. Risk of use disorder in someone with indications for buprenorphine
 3. Medical co-morbidities increasing overdose risk
 4. Multiple side effects from chronic opioid use
 5. Non-adherence to the treatment plan
 6. Concern for hyperalgesia in current opioid plan
 7. Patient preference



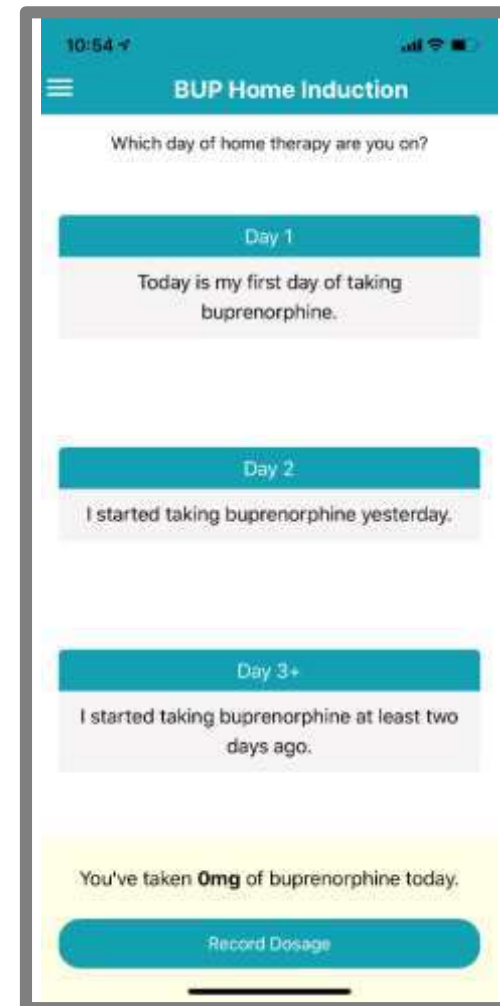
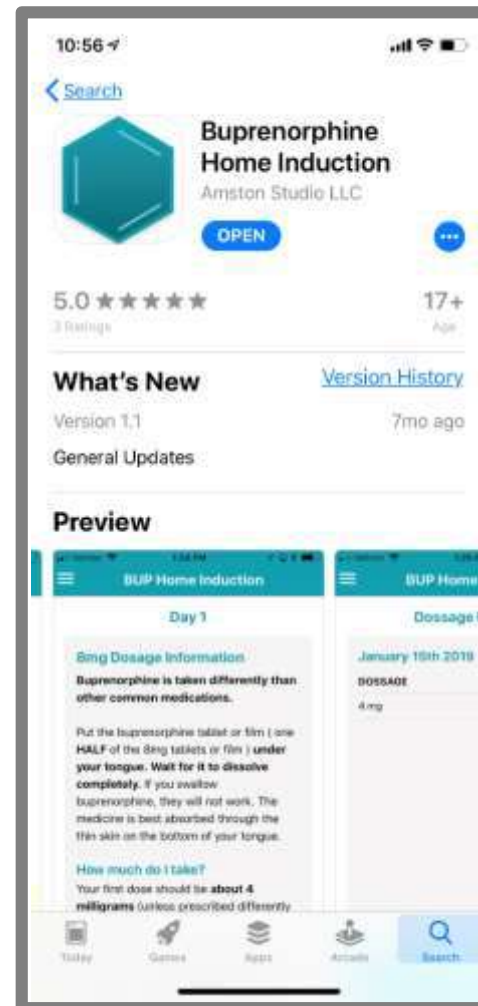
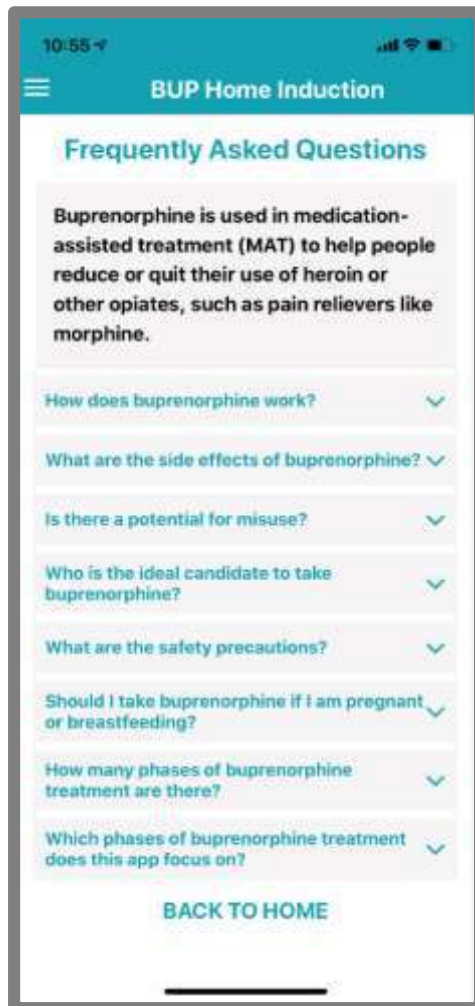
MAT AND PREGNANCY

	Methadone	Buprenorphine
Can be used in pregnancy?	Yes	Yes (with or without naloxone)
Dose adjustments?	May need to split and/or increase	May need to split and/or increase
Delivery issues?	Epidural ok; anesthesia should be aware if c-section; routine post-op pain management	Epidural ok; anesthesia should be aware if c-section; could increase buprenorphine if needed for post-op pain mgmt
Neonatal withdrawal?	Yes	Milder, shorter
Breastfeeding?	Yes	Yes

It is NOT recommended to stop or switch MAT treatment during pregnancy.



SMARTPHONE APP: BUPRENORPHINE HOME INDUCTION



FENTANYL

- High potency, synthetic opioid
 - Strong receptor affinity
 - Half life is ~7 hours
 - Lipophilic, can build up in adipose tissue
- **Pearl:** Despite the short half-life, the high potency and lipid storage of fentanyl can lead to ongoing withdrawal symptoms during buprenorphine induction that can last for days to a week.



ATYPICAL OPIOIDS: TRAMADOL

- A synthetic 4-phenyl-piperidone analogue of codeine
- Opioid agonist, also inhibits noradrenaline and serotonin reuptake

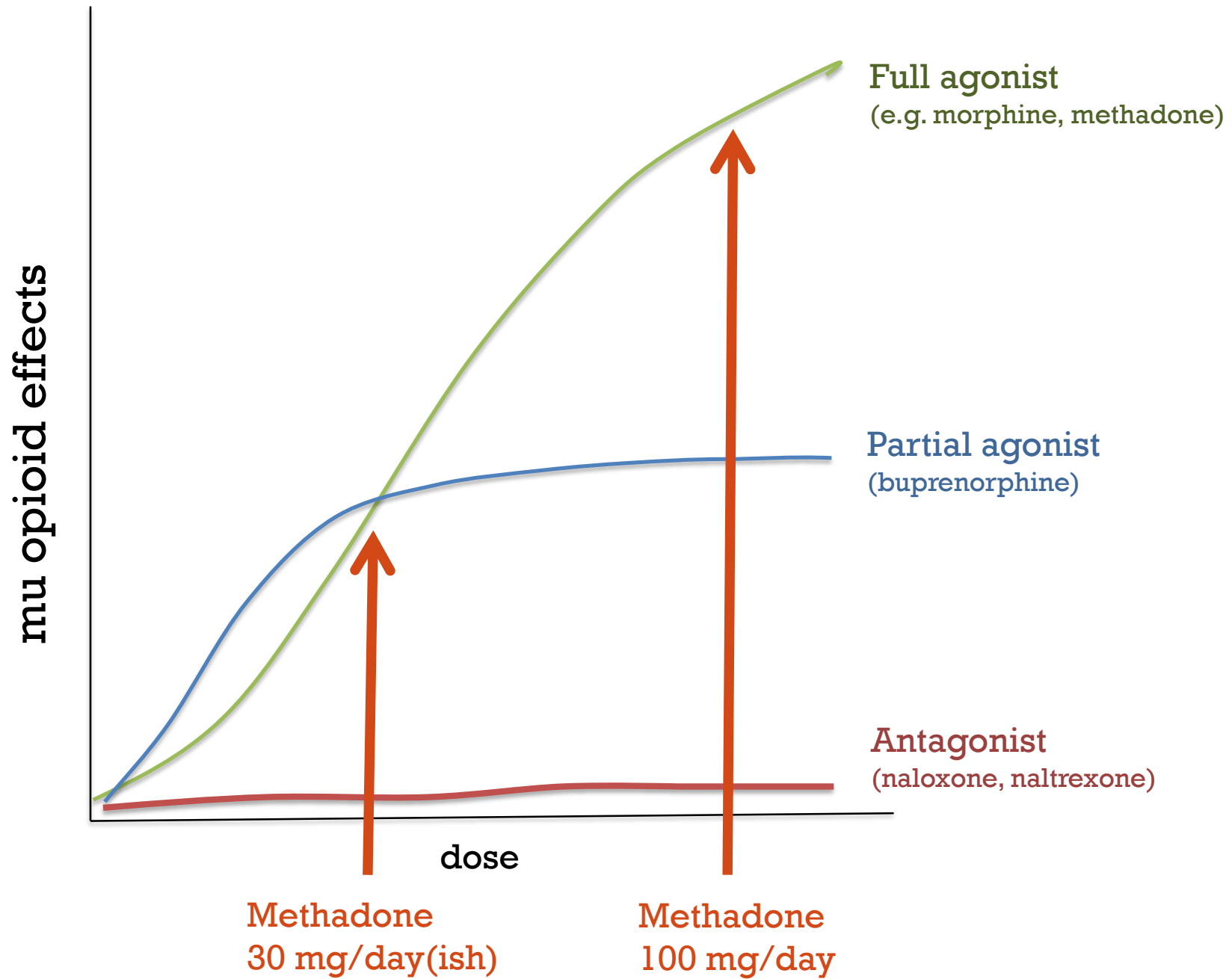
- **Pearls:** Opioid withdrawal syndrome + SNRI-like withdrawal syndrome



ATYPICAL OPIOIDS: KRATOM

- A tropical tree, native to Southeast Asia; leaves are swallowed/chewed/smoked/brewed
 - Readily available to order on internet, not currently illegal
 - Opioid like effects at lower dose
 - Stimulant like effects at higher dose
 - No treatments have been tested for treatment of kratom addiction
- **Pearl: Very short acting**

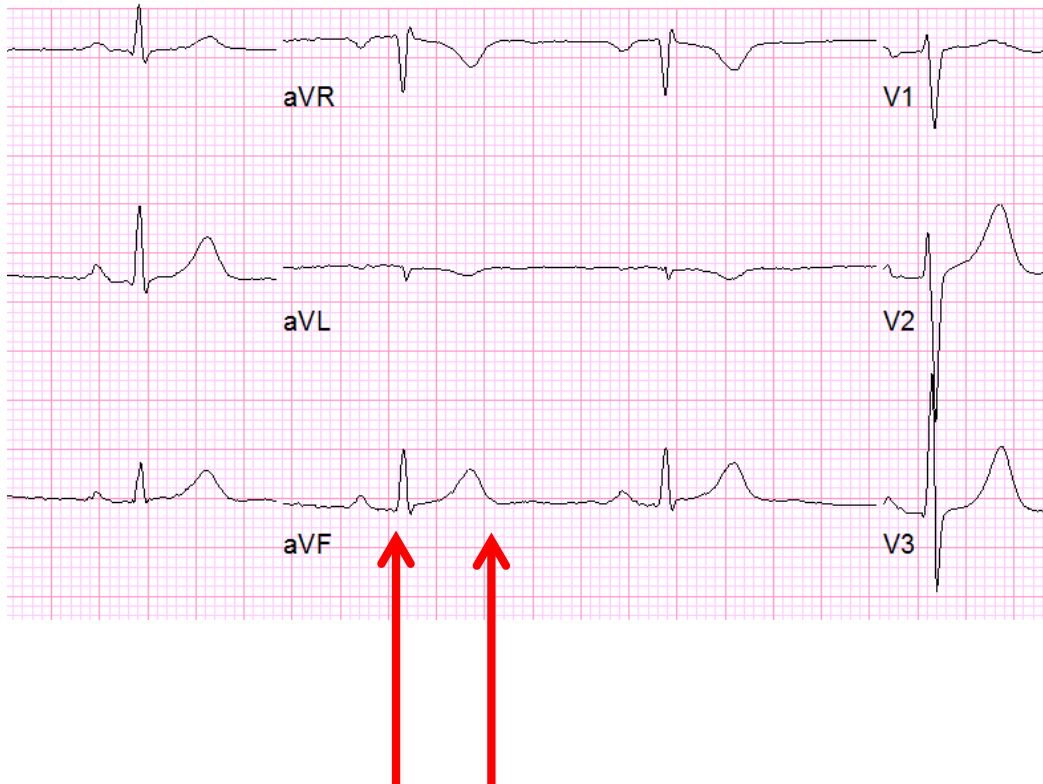




Vent. rate	54	BPM	Sinus bradycardia
PR interval	184	ms	Otherwise normal ECG
QRS duration	96	ms	No previous ECGs available
QT/QTc	444/421	ms	Confirmed by fellow KUM
P-R-T axes	62 64 77		Confirmed by CHASE, M

n: JRF

Referred by: ANTHONY M



Reminder that all of these can cause repolarization delay (QT prolongation):

- Methadone
- Citalopram
- Hydroxyzine



FAQ'S

- How long should someone stay on MAT?



FAQ'S

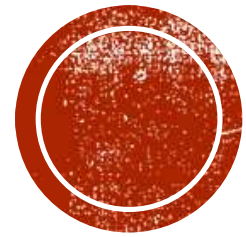
- What if my patient on buprenorphine has a positive urine toxicology for:
 - Cocaine?
 - Marijuana?
 - Another opioid?



FAQ'S

- What do I need to know about Prior Authorizations?





HARM REDUCTION IN CLINICAL PRACTICE WITH BUPRENORPHINE

**Learning about
treatment
options**

Access to
information

Online, easy
navigation

Does not require
case
manager/referral

**Finding
treatment**

Options

Transportation
accessible

Allow for work,
childcaring, etc.

**Going to
treatment**

Walk-in
availability,
realistic hours

Applications?
Approvals prior
to starting?

Case manager
support over
barriers

Providers

Abstinence
required?
Participate only
when sober?

Individualize
treatment
plan/goal

Therapy required
for other services
(medications)



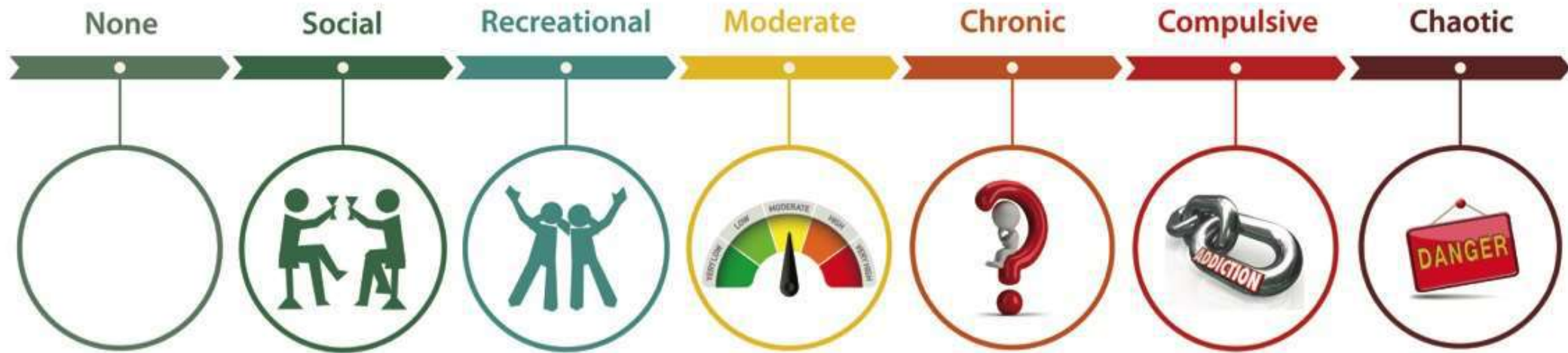
CLINICAL HARM REDUCTION STRATEGIES

- Patient-dictated therapeutic focus and goals of care along a continuum
- Investigate the “whys” of different drug use
- Focus on patient’s relationship with the drug (vs. the person or the drug)
- Education about safe injection practices
- Provide culturally competent educational materials
- Be affirming of goals, resilience, and successes to date
- Encourage drug checking
- Ensure naloxone availability (prescription, IHRC contact)



Harm Reduction Continuum

— Substance use and behaviors occur along a continuum from no use to chaotic use



Adapted from Patt Denning's book "Practicing Harm Reduction Psychotherapy"

LivingMoreFully
.com



CLINICAL HARM REDUCTION STRATEGIES

- Any Positive Change
- Do NOT require participation in 12-step fellowships
- Use non-stigmatizing language
- Investigate past experiences with healthcare providers – boundaries, relationship building
- Clarify re: patient health information accessibility – Insurance? Family? Law enforcement?
- Eliminate rules for engagement – unconditional regard and support
- Investigate reasons for any hostility, anger, silence, etc. openly and honestly



Language matters...

4 guidelines to using non-stigmatizing language

1 Use People-first language



Person who uses opioids

vs.

Opioid user OR Addict



2 Use language that reflects the medical nature of substance use disorders



Person experiencing problems with substance use

vs.

Abuser OR Junkie



3 Use language that promotes recovery



Person experiencing barriers to accessing services

vs.

Unmotivated OR Non-compliant



4 Avoid slang and idioms



Positive test results OR Negative test results

vs.

Dirty test results OR Clean test results



Language matters

Language is powerful—especially when talking about alcohol and other drugs and the people who use them. Stigmatising language reinforces negative stereotypes. “Person-centred” language focuses on the person, not their substance use.

When working with people who use alcohol and other drugs...

try this	instead of this
substance use, non-prescribed use	abuse misuse problem use non-compliant use
person who uses/injects drugs	drug user/abuser
person with a dependence on...	addict junkie druggie alcoholic
person experiencing drug dependence	suffering from addiction has a drug habit
person who has stopped using drugs	clean sober drug-free
person with lived experience of drug dependence	ex-addict former addict used to be a...
person disagrees	lacks insight in denial resistant unmotivated
treatment has not been effective/chooses not to	not engaged non-compliant
person's needs are not being met	drug seeking manipulative splitting
currently using drugs	using again fallen off the wagon had a setback
no longer using drugs	stayed clean maintained recovery
positive/negative urine drug screen	dirty/clean urine
used/unused syringe	dirty/clean needle dirties
pharmacotherapy is treatment	replacing one drug for another

Adapted from Language Matters from the National Council for Behavioural Health, United States (2015) and Manua Raki, New Zealand (2016)



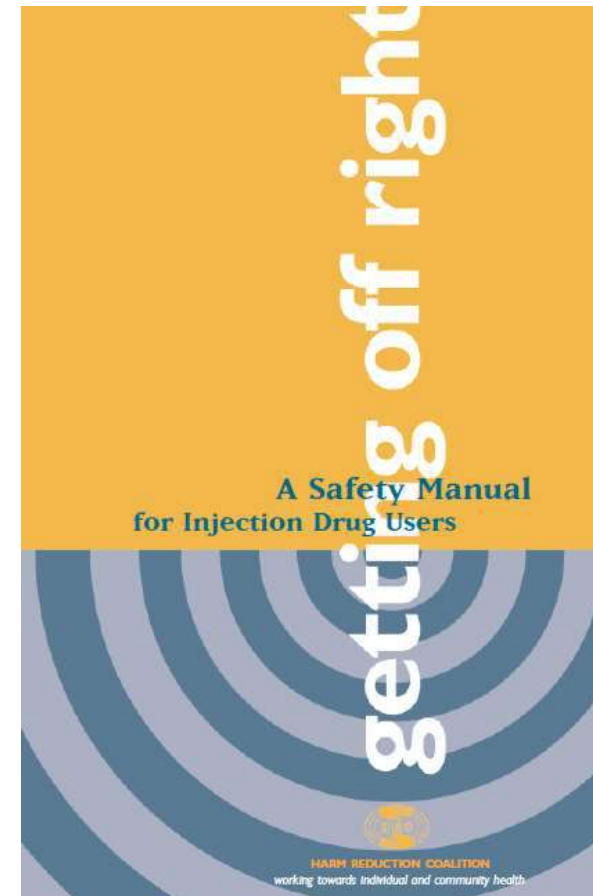
NALOXONE

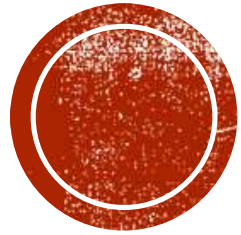
- Likely responsible for the reduction in opioid overdose deaths in 2018
- Offer it to all of your patients
- Higher doses than usual or repeat dose may be needed, especially if the person has been exposed to fentanyl
- What do you tell your patients about how to get naloxone?
- What do you tell your patients about how to use naloxone?



SAFER INJECTING COUNSELING

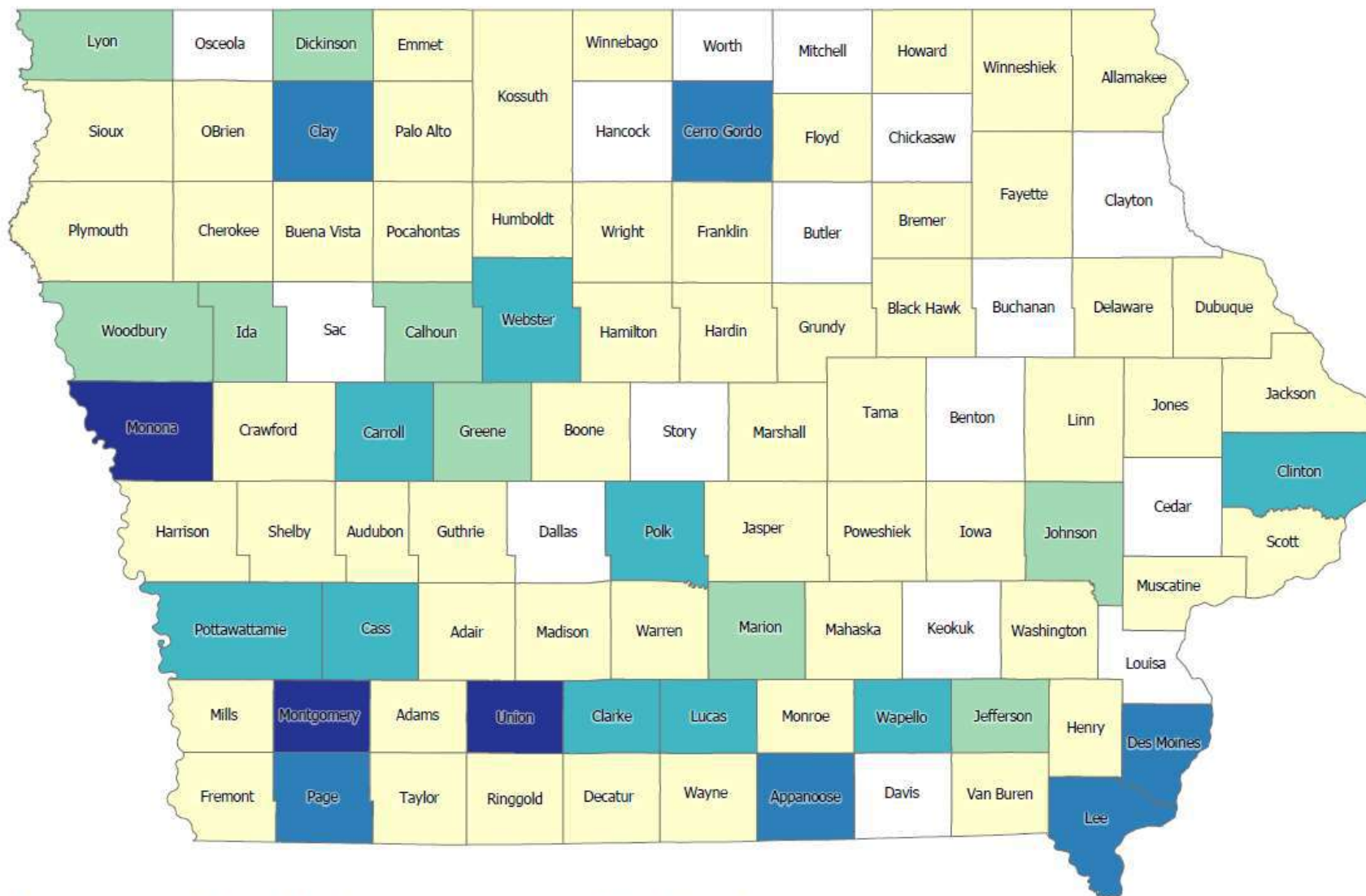
- Demonstrates nonjudgemental care, compassion, and overall concern for safety
- Helps establish trust in treatment relationship
- Education frames around existing practices and knowledge of the patient
- Basics:
 1. Frequency of injection use
 2. Site of injection use
 3. Needle type (gauge, length)
 4. Tourniquet used? How?
 5. Injection angle
 6. Filtering practices
 7. Sterile injection practices
 8. Managing inflammation after a “miss”





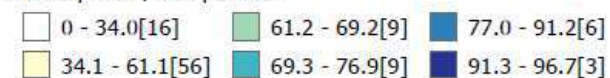
IDPH — TREATMENT PROGRAMS

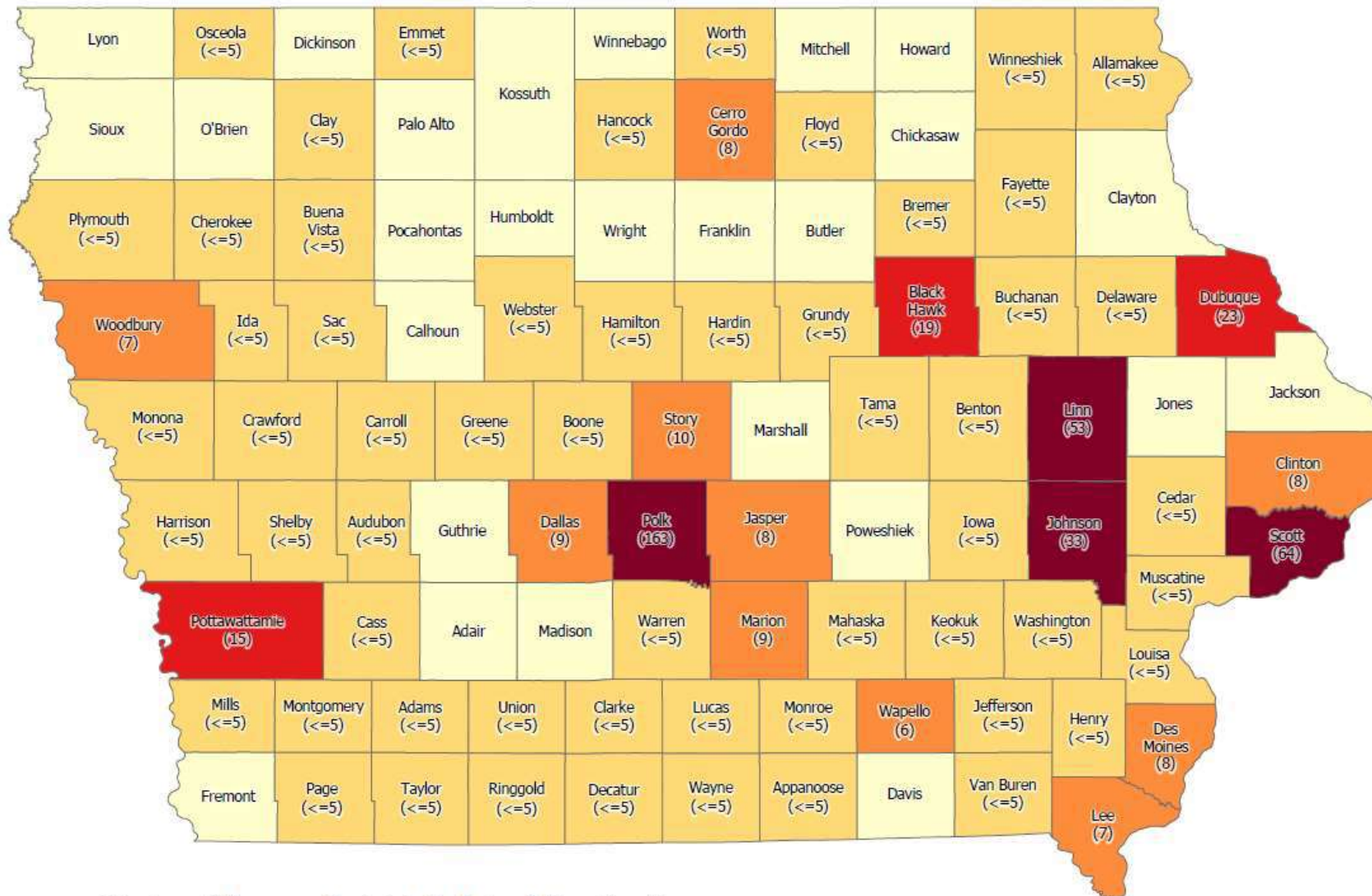
Monica Wilke-Brown, LMSW
Treatment Program Directors



Iowa Prescription Monitoring Program (PMP) Opioid prescriptions per 100 people in 2018

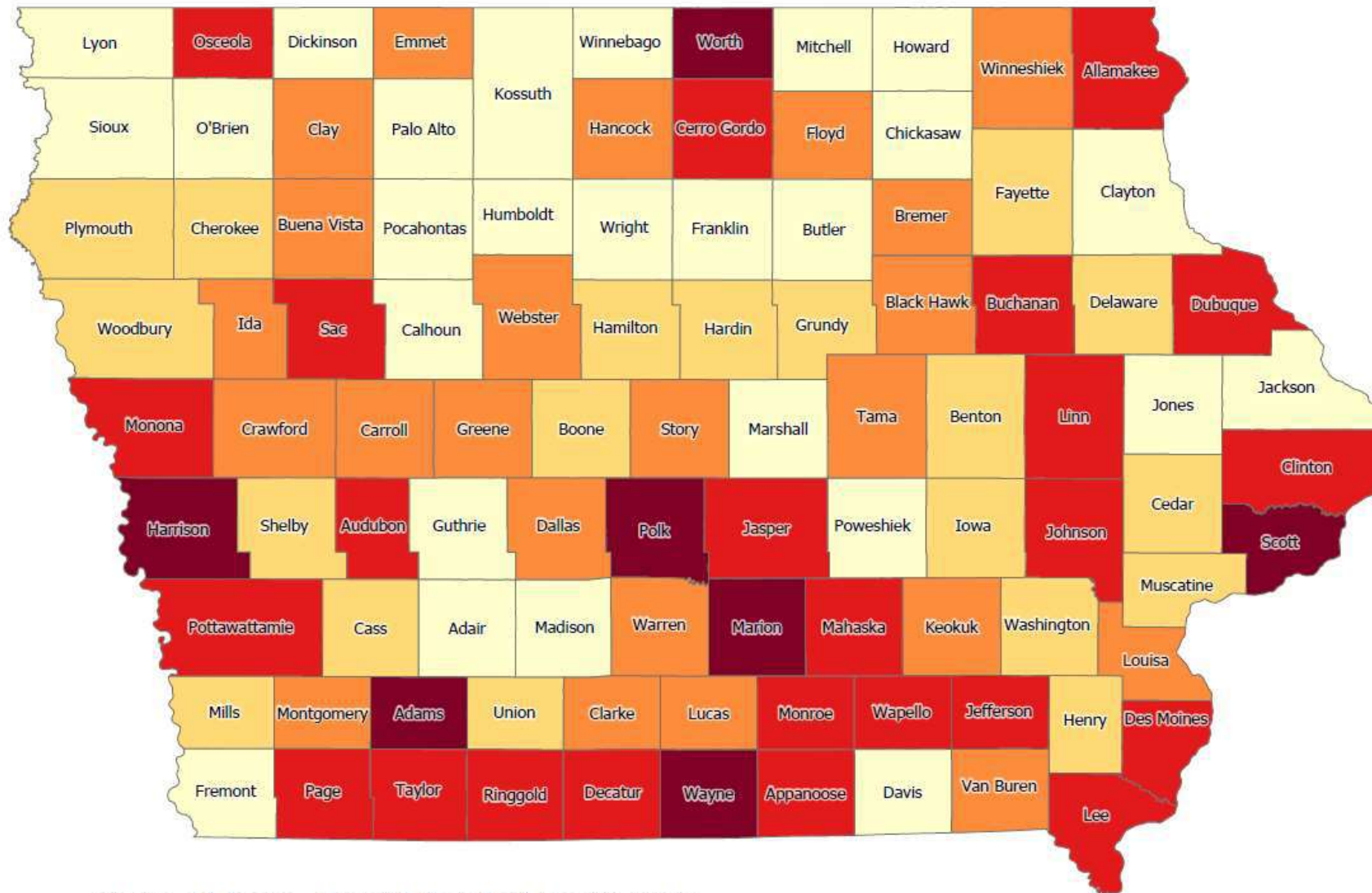
Prescriptions / 100 persons





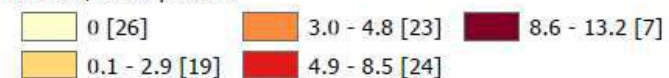
State of Iowa, Opioid Related Deaths by County of Residence, 2015-2017



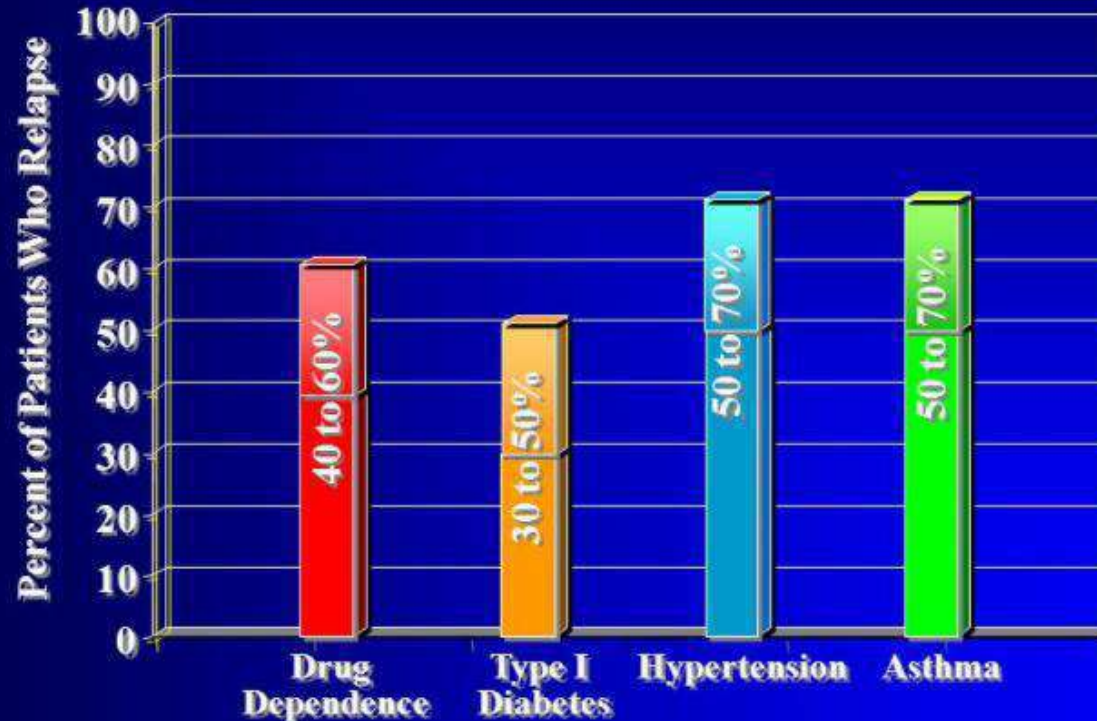


State of Iowa, Opioid Related Death Rate
Per 100,000 Persons, 2015-2017

Deaths / 100K persons



Relapse Rates for Drug Addiction are Similar to Other Chronic Medical Conditions



Source: McLellan, A. T. et al., JAMA, Vol 284(13), October 4, 2000.

"Unfortunately, when relapse occurs many deem treatment a failure. This is not the case: Successful treatment for addiction typically requires **continual evaluation and modification** as appropriate, similar to the approach taken for other chronic diseases."



ADDITIONAL GRANT FUNDED EFFORTS

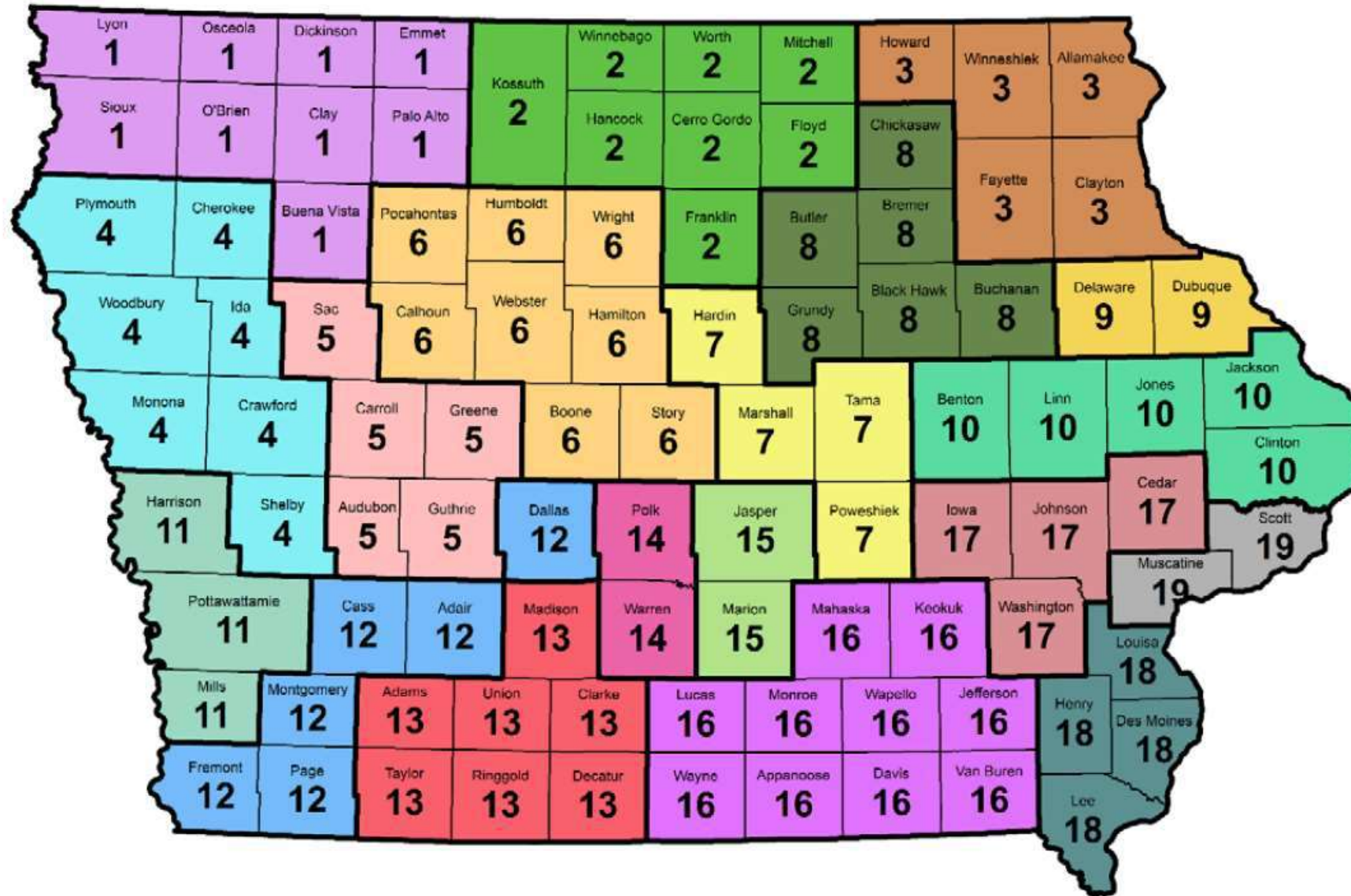
- RFPs currently open on Iowagrants.gov
- National Governor's Association Learning Lab on working with DOC to improve buprenorphine access
- Integrated Provider Network MAT access/capacity building, staff and community trainings
- Naloxone distribution: Tele-Naloxone partnership with UIHC Specialty Pharmacy
- Statewide Media campaigns



yourlifeiowa.org



**Integrated Provider Network (IPN) Service Area Map and Contractors
Substance Use and Problem Gambling Services***



Service Area	Contractor	Service Area	Contractor
1	Jackson Recovery Centers, Inc. , Spencer Phone: 800-472-9018	13	Crossroads Behavioral Health Services , Creston (4) Phone: 641-782-8457
2	Prairie Ridge Integrated Behavioral Healthcare , Mason City (1) Phone: 866-429-2391	14	Broadlawns Medical Center , Des Moines Phone: 515-282-6610
3	Northeast Iowa Behavioral Health , Decorah (4) Phone: 800-400-8923		House of Mercy, Des Moines (1,3) Phone: 515-643-6500
4	Jackson Recovery Centers, Inc. , Sioux City (1, 2, 3) Phone: 800-472-9018		Prelude Behavioral Services , Des Moines (1) Phone: 515-262-0349
5	Community Opportunities DBA New Opportunities , Carroll Phone: 712-792-9266		UCS Healthcare , Des Moines (4) Phone: 515-280-3860
6	Community and Family Resources (CFR) , Fort Dodge (1, 2, 4) Phone: 866-801-0085	15	House of Mercy, Newton Phone: 641-792-0717
7	Substance Abuse Treatment Unit of Central Iowa , Marshalltown Phone: 641-752-5421		UCS Healthcare , Knoxville Phone: 515-280 -3860
8	Pathways Behavioral Services, Inc. , Waterloo (1, 4) Phone: 319-235-6571	16	Southern Iowa Economic Development Association (SIEDA) , Ottumwa (4) Phone: 800-622-8340
9	Substance Abuse Services Center (SASC) , Dubuque Phone: 563-582-3784	17	Prelude Behavioral Services , Iowa City (1) Phone: 319-351-4357
10	Area Substance Abuse Council, Inc. (ASAC) , Cedar Rapids (1, 2, 3, 4) Phone: 319-390-4611	18	Alcohol & Drug Dependency Services (ADDS) , Burlington (1, 4) Phone: 319-753-6567
11	Heartland Family Service , Council Bluffs (1, 3) Phone: 712-322-1407	19	Center for Alcohol & Drug Services, Inc. (CADS) , Davenport (1) Phone: 563-322-2667
12	Zion Recovery Services, Inc. , Atlantic (1), Phone: 712-243-5091		Robert Young Center , Muscatine, Phone: 563-264-9409 (4)
Additional Specialized Treatment Statewide Services (1) Adult Residential Treatment (2) Juvenile Residential Treatment (3) Women and Children Treatment (4) Methadone Treatment			

*The IPN contractors (providers) are funded by IDPH to provide substance use and problem gambling services to eligible lowans. For more information about the providers listed, click on the provider name or call the phone numbers listed. For more information about other treatment and prevention programs visit: <http://www.yourlifeiowa.org/finder>. September 2019



IOWA'S GOOD SAMARITAN LAW PROTECTS YOU

DON'T RUN CALL 911!

IF YOU WITNESS A DRUG OVERDOSE



GENERALLY, YOU **CANNOT** BE ARRESTED,
CHARGED OR PROSECUTED FOR:

- ✓ Possession of a controlled, dangerous substance
- ✓ Possession or use of drug paraphernalia, and
- ✓ Calling 911 **WILL NOT** affect your parole or probation status

Iowa's law does not protect against arrest for open warrants and crimes not listed above.
For additional details regarding Iowa's Good Samaritan Law, see Iowa Code Section 124.418.

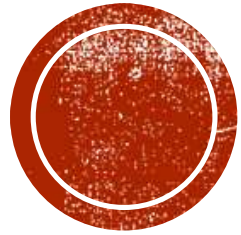


September 2018

FOR MORE INFORMATION VISIT
YourLIFEiowa.org

Thanks to Maryland Department of Health





POLICY AND ADVOCACY BREAKOUT SESSIONS

Payor/Medicaid

Department of Corrections

Emergency/Inpatient Hospital roles

Current Waiver Requirements

POLICY AND ADVOCACY

1. Payor/Medicaid
2. Department of Corrections
3. Emergency/Inpatient Hospital roles
4. Current Waiver Requirements



MEDICAID PRIOR AUTHORIZATION

- Sample forms.
- Experience?
- Barriers?
- Revisions?
- Other payor issues?
- States without Prior Authorization: New York



DEPARTMENT OF CORRECTIONS

- Continuing medications for opioid use disorders
- Starting medications in jail/prison
- Starting/continuing medications in halfway housing
- Attitudes of corrections officers re: medications for opioid use disorders



UIHC ED INDUCTION PROTOCOL

- Sample protocol.
- Screening for opioid use disorders and severity
- 24/7 access to induction on buprenorphine
- 2 weeks supply via Zubsolv company coupon
- Follow-up in UIHC MAT Clinic as soon as possible



CURRENT DEA WAIVER REQUIREMENTS

- DATA 2000
- CARA 2016
- SUPPORT 2018



DATA 2000

- Allowed certified physicians to prescribe and dispense opioid use disorders with Schedule III, IV, and V medications that have FDA-approval for treatment of OUD in treatment setting outside of an opioid treatment program (OTP).
- Requires state medical license, DEA registration number, specialty/subspecialty within ABMS, ASAM, or AOA
- 8 hours training from a certified provider, application for new DEA number
- Treat up to 30 patients with opioid use disorder within first year
- After 1 year, can apply to have limit increased to 100 patients



CARA 2016

- Expanded prescribing privileges to NPs and PAs for 5 years (until 2021).
 - 24 hours of training
 - Supervised by/work with qualifying physician as per state law
- Excluded patients getting buprenorphine directly administered from patient limit
 - i.e. OTP patients receiving directly administered buprenorphine



SUPPORT 2018

- Expanded qualifying practitioners to certified nurse midwives, clinical nurse specialists, certified registered nurse anesthetists
 - 24 hours of training
- All qualified practitioners can treat up to 100 patients in the first year if:
 - They are board-certified in addiction medicine or addiction psychiatry –OR–
 - They provide MAT in a **qualified practice setting**
- After 1 year, qualified practitioners can request permission to treat up to 275 patients if:
 - They have maintained the 100-patient limit waiver for at least 1 year –AND–
 - They are board certified in AP or AM –OR– provide MAT in a qualified practice setting –AND–
 - They have not had Medicare enrollment and billing privileges revoked



QUALIFIED PRACTICE SETTING?

- Provides **professional coverage for patient medical emergencies** during hours when the practitioner's practice is closed
- Provides access to **case-management services** for patients including referral and follow-up services for programs that provide, or financially support, the provision of services such as medical, behavioral, social, housing, employment, educational, or other related services
- Uses health information technology systems such as **electronic health records**
- Is registered for their State prescription drug monitoring program (**PDMP**) where operational and in accordance with Federal and State law
- Accepts **third-party payment** for costs in providing health services, including written billing, credit, and collection policies and procedures, or Federal health benefits



**THANK YOU FOR
ATTENDING!!!**

