

# MEDICATION ASSISTED TREATMENT FOR OPIOID ADDICTION

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**Mark Fisher**

**Program Administrator**

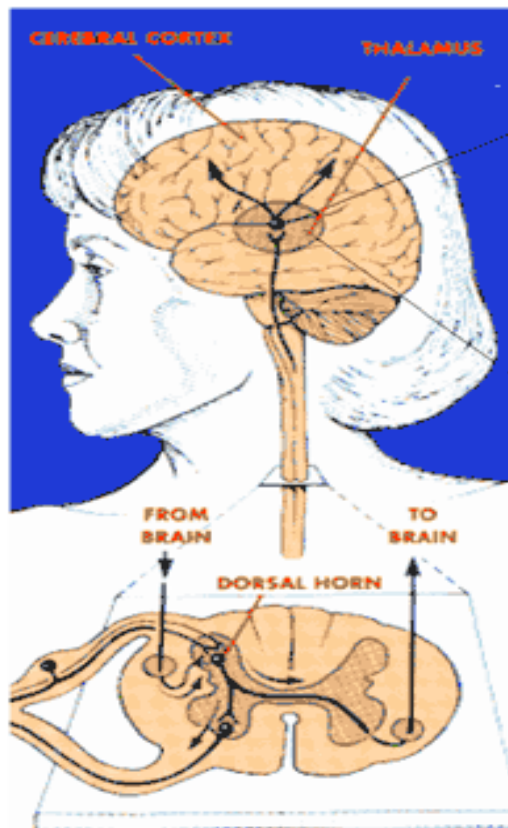
**State Opioid Treatment Administrator**

**Kentucky Division of Behavioral Health**

# OBJECTIVES

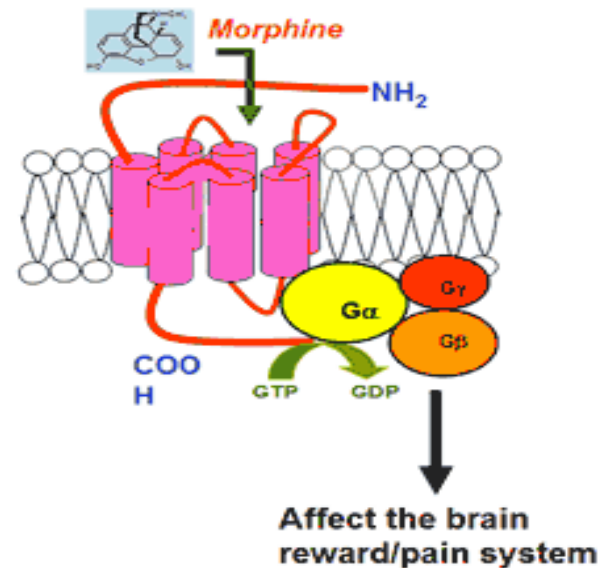
- ❖ Learn about types of opioids and associated withdrawal symptoms
- ❖ Learn what medications are available to treat opioid addiction
- ❖ Understand the pros and cons associated with each medication
- ❖ Understand the risks and benefits of utilizing these medications during pregnancy

Addiction – “ A brain disease, not a social dysfunction”. Green light, Red light responses.



**Mu Opioid Receptor:**

located on the membrane of neuronal cells



## Dopamine Pathways

## Serotonin Pathways

Frontal cortex

Striatum

Substantia nigra

### Functions

- Reward (motivation)
- Pleasure, euphoria
- Motor function (fine-tuning)
- Compulsion
- Perseveration

VTA

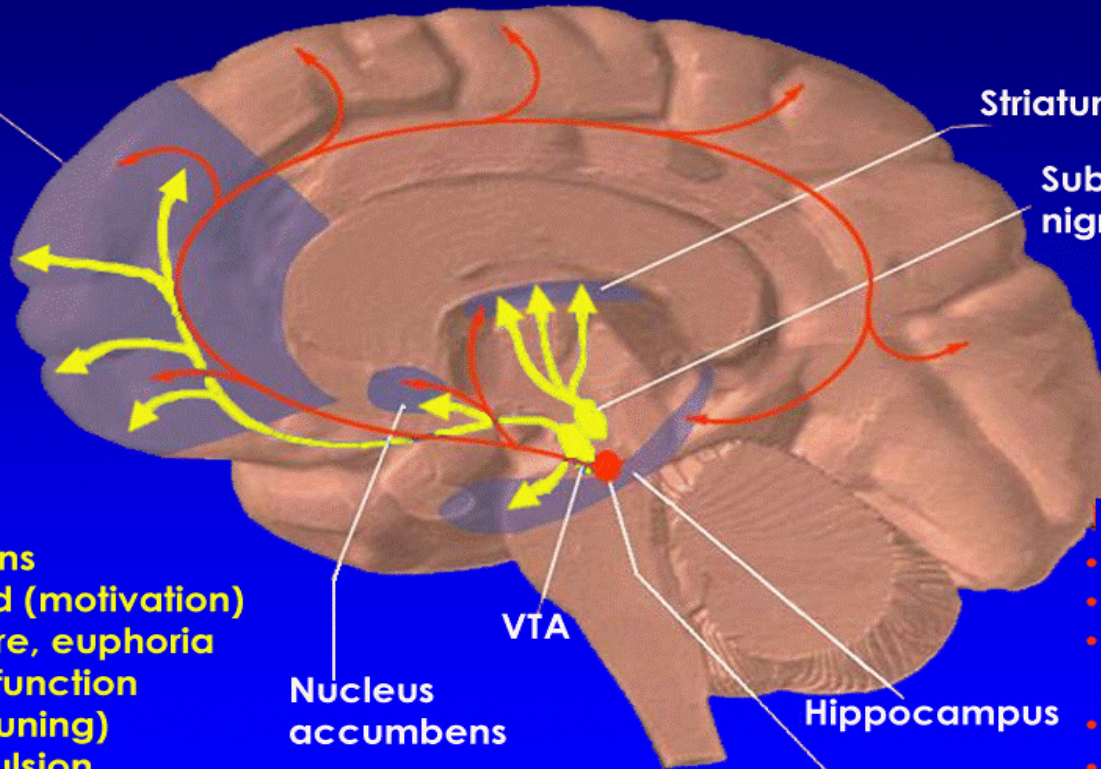
Nucleus accumbens

Hippocampus

Raphe nucleus

- Functions
- Mood
- Memory processing
- Sleep
- Cognition

NIDA



# Short Definition of Addiction

- Addiction is a primary, chronic disease of brain reward, motivation, memory and related circuitry. Dysfunction in these circuits leads to characteristic biological, psychological, social and spiritual manifestations. This is characteristic biological, social and spiritual manifestations. This is reflected in an individual pathologically pursuing reward and/or relief by substance use and other behaviors.
- Addiction is characterized by inability to consistently abstain, impairment in behavioral control, craving, diminished recognition of significant problems with one's behaviors and interpersonal relationships. Without treatment or engagement in recovery activities, addiction is progressive and can result in disability or premature death.
- Source: American Society of Addiction Medicine ( ASAM)

# OPIOID ADDICTION AND TREATMENT

- ❖ Opioids-effects and withdrawals
- ❖ Methadone
- ❖ Buprenorphine-Suboxone and Subutex
- ❖ Naltrexone

# OPIOIDS

- ❖ Naturally occurring from opium (opiate)-
  - morphine, codeine, and thebaine
- ❖ Semi-synthetics (opiate)-
  - Morphine-heroin, MS Contin
  - Codeine-Vicodin, Lortab, Oxycodone, Percoset, Tylox, Oxycontin
  - Thebaine-Not used therapeutically, but converted into Naloxone, Naltrexone, Buprenorphine
- ❖ Fully-synthetic (opioid)-
  - Methadone, Fentanyl, Darvon

# IMPACT OF OPIOIDS ON PHYSICAL HEALTH

- ❖ Drowsiness
- ❖ Constipation
- ❖ Depression of CNS
- ❖ Physical dependence and addiction
- ❖ Infections and collapsed veins



# PHYSICAL IMPACT CONT.

- ❖ Liver or kidney disease
- ❖ Damage to vital organs
- ❖ Hyperalgesia
- ❖ HIV and Hepatitis C
- ❖ Fatal overdose

# IMPACT OF OPIOID ADDICTION ON EMOTIONAL, SOCIAL, AND FAMILY

- ❖ Decrease/cease self care and ADL's
- ❖ Increase in criminal behavior
- ❖ Loss of job, school difficulties
- ❖ Depression, anxiety
- ❖ Dishonesty, lack of trust

## EMOTIONAL/SOCIAL IMPACT CONT.

- ❖ Less quality time with family
- ❖ Lose/harm relationships
- ❖ Compromise personal values
- ❖ Engage in high risk behaviors
- ❖ Financial burden to community

# OPIOID WITHDRAWAL SYMPTOMS

- ❖ Abdominal pain
- ❖ Agitation
- ❖ Diarrhea
- ❖ Dilated pupils
- ❖ Goose flesh
- ❖ Nausea
- ❖ “The leaks”

## WITHDRAWAL SYMPTOMS CONT.

- ❖ Involuntary leg movements
- ❖ Restlessness
- ❖ Runny nose
- ❖ Sweating
- ❖ Vomiting
- ❖ Bone and joint pain

# OPIOID WITHDRAWAL

- ❖ Peak between 48 and 72 hours after last dose.
- ❖ Feels like terrible flu.
- ❖ Typically subsides after about 1-2 weeks.
- ❖ Can show persistent withdrawal symptoms for months.
- ❖ Less dangerous than alcohol, but for those in poor health can be fatal.

# METHADONE-MYTH V. FACT

*“Finding Normal”*

# METHADONE

- ❖ Developed on the battlefield in WWII Germany for pain relief.
- ❖ Schedule II narcotic
- ❖ Long acting opioid analgesic (24-36 hours)
- ❖ Full mu opioid agonist-binds and activates creating a “Blocking Effect”.



# METHADONE

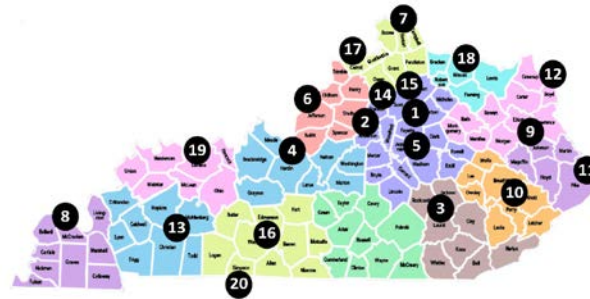
- ❖ Long half-life (12-59 hours)
- ❖ Administered orally- always in liquid form
- ❖ National average dose is 80 milligrams

# METHADONE TREATMENT

- ❖ Medication is only one component ( wrap around services)
- ❖ Detoxification v. Maintenance (MMT)
- ❖ Opiate Treatment Programs
  - Overview of average OTP
  - Federal and State regulations
  - Kentucky's programs

# Kentucky Opioid Treatment Programs

## Kentucky Opioid Treatment Programs



- |   |   |                     |
|---|---|---------------------|
| ① | Narcotics Addiction Program/bluegrass.org   | Bus: (859) 977-6080 |
| ② | Center for Behavioral Health Kentucky Inc   | Bus: (502) 894-0234 |
| ③ | Corbin Professional Associates              | Bus: (606) 526-9348 |
| ④ | E-town Addiction Solutions, LLC             | Bus: (270) 234-8180 |
| ⑤ | Associates, Lexington Professional          | Bus: (859) 276-0533 |
| ⑥ | MORE Center/Methadone/Opiate Rehab. & Ed    | Bus: (502) 574-6414 |
| ⑦ | Northern Kentucky Clinic, LLC               | Bus: (859) 360-0250 |
| ⑧ | Paducah Professional Associates             | Bus: (270) 443-0096 |
| ⑨ | Paintsville Professional Associates         | Bus: (606) 789-6966 |
| ⑩ | Perry County Treatment Services             | Bus: (606) 487-1646 |
| ⑪ | Center, Pikeville Treatment                 | Bus: (606) 437-0047 |
| ⑫ | Ultimate Treatment Center                   | Bus: (606) 393-4632 |
| ⑬ | Western Kentucky Medical                    | Bus: (270) 887-0130 |
| ⑭ | Center for Behavioral Health Inc. Frankfort | Bus: (502) 352-2111 |
| ⑮ | Georgetown Medical, LLC*                    | Bus: (502) 868-0664 |
| ⑯ | Center for Behavioral Health, Bowling Green | Bus: (270) 782-2100 |
| ⑰ | Carroll Counseling – Carrollton*            | Bus: (502) 732-3070 |
| ⑱ | Maysville Medical LLC*                      | Bus: (606) 564-0303 |
| ⑲ | Daviess Treatment Services*                 | Bus: (270) 685-5029 |
| ⑳ | Simpson Treatment Center*                   | Bus: (270)-253-3078 |

\* Indicates a Medication Station

# Drug overdose rate by county

## Annual average rate of drug overdose deaths among Kentucky residents

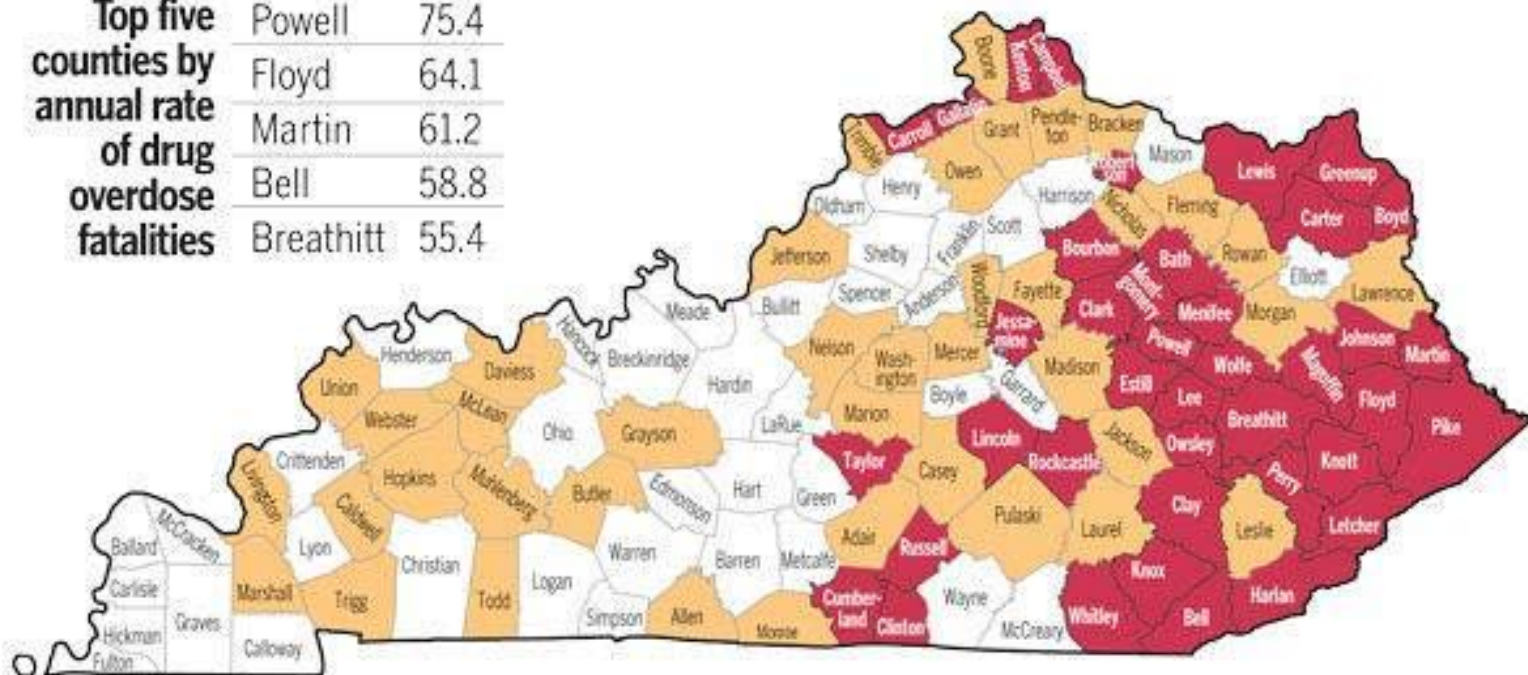
per 100,000 population

0.0 - 13.1

13.2 - 23.5

24.1 - 75.4

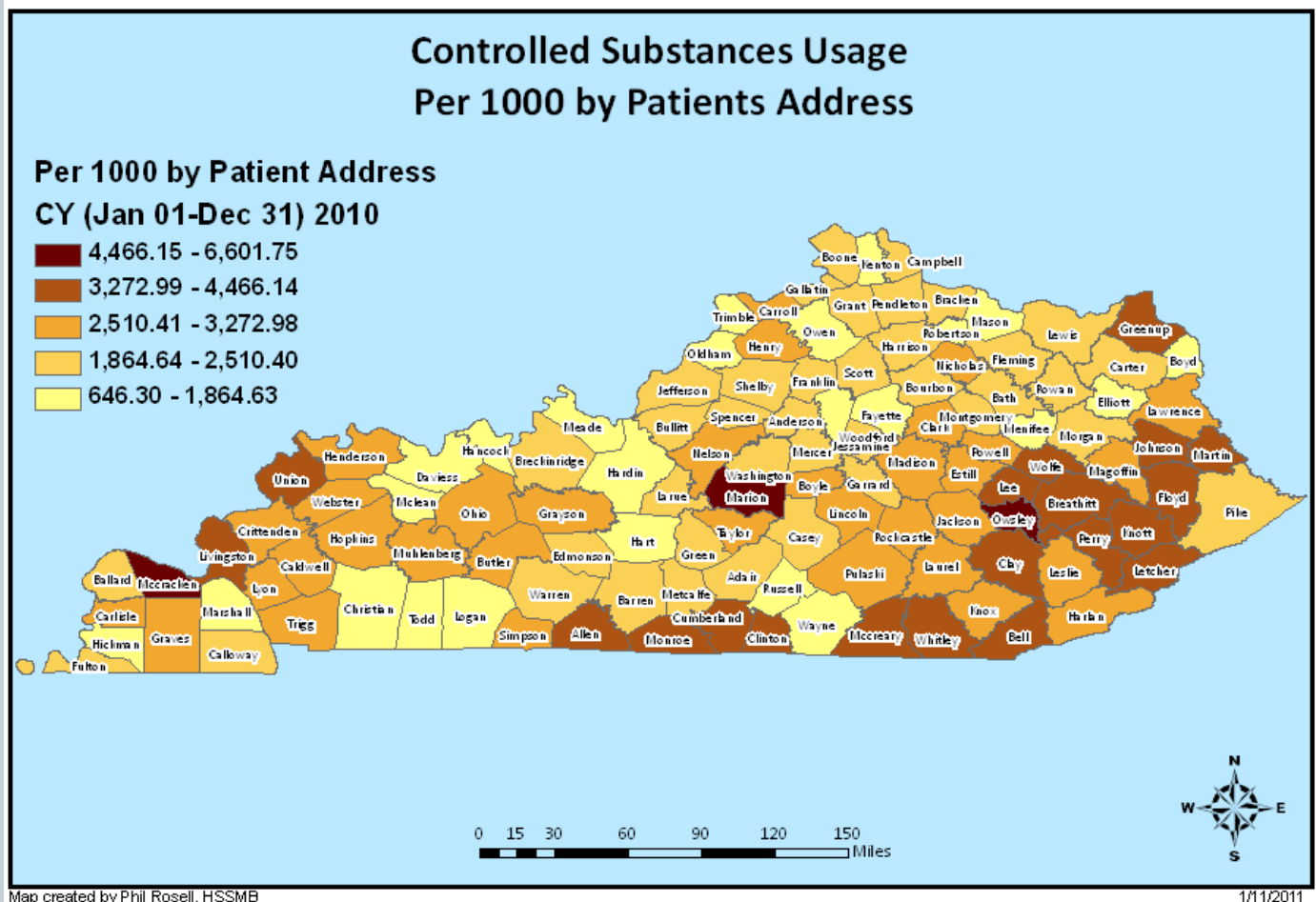
Top five counties by annual rate of drug overdose fatalities	County	Rate
	Powell	75.4
	Floyd	64.1
	Martin	61.2
	Bell	58.8
	Breathitt	55.4



Source: Drug Overdose Morbidity and Mortality in Kentucky, 2000-2010

CHRIS WARE | cware@herald-leader.com

# Kentucky Counties in Crisis





# METHADONE BENEFITS

- ❖ Right dose does not cause euphoric or tranquilizing effects.\* This does not apply to opiate naïve individuals.
- ❖ Reduces/blocks effects of other opiates.
- ❖ Tolerance is slow to develop.

# METHADONE BENEFITS

- ❖ Relieves cravings.
- ❖ Allows the individual to feel “normal”.
- ❖ Improved employment status and family relationships.



# METHADONE BENEFITS

- ❖ Decrease in criminal activities.
- ❖ Decrease in high risk behaviors such as IVDU  
= decrease in HIV and Hep. C.
- ❖ Improved health and health care.

# METHADONE LIMITATIONS

- ❖ Increased risk when combined with other drugs. (Benzodiazapines)
- ❖ Can only be dispensed/administered through an OTP.
- ❖ Private can be expensive.
- ❖ Heavily regulated, lots of rules, can be time consuming.

# METHADONE LIMITATIONS

- ❖ Abuse liability and diversion
  - Use by pain management programs
  - Opiate naïve users
- ❖ Associated health complications
  - torsade de pointes-QT prolongation, arrhythmia - ventricular tachycardia

# BUPRENORPHINE (SUBOXONE)

*“Overcoming Dependence”*

# BUPRENORPHINE

- ❖ Drug Addiction Treatment Act of 2000
- ❖ In 2002, two forms were FDA approved- Subutex and Suboxone, both made by Reckitt-Benckiser.
- ❖ Schedule III narcotic
- ❖ Opioid analgesic with effects up to 6 hours.

# BUPRENORPHINE

- ❖ Partial mu opioid agonist (ceiling effect)
- ❖ Long half-life (24-60 hours)
- ❖ Administered as sublingual tablet
  - Subutex- 2 mg or 8 mg buprenorphine
  - Suboxone- 2 mg bup + .5 mg naloxone  
8 mg bup + 2 mg naloxone

# SUBUTEX

- ❖ Contains Buprenorphine only.
- ❖ Minimally used in U.S. today except with pregnant women.
- ❖ Higher rate of diversion, can be injected.

# SUBOXONE

- ❖ Naloxone added as means to decrease diversion.
- ❖ Poor bioavailability sublingually, but if dissolved and injected, will precipitate withdrawal.
- ❖ High diversion potential with lack of regulatory oversight.



# BUPRENORPHINE TREATMENT

- ❖ Medication is only one component
- ❖ Short-term v. long-term
- ❖ OTP v. OBOT (Office Based)
  - Overview
  - Federal and State guidelines
  - Kentucky's programs

# BUPRENORPHINE BENEFITS

- ❖ Virtually no euphoric or tranquilizing effects.
- ❖ Blocks effects of other opiates.
- ❖ Relieves cravings to use other opiates.
- ❖ Allows “normal” function”.
- ❖ Lower abuse liability and diversion potential than Methadone.

# BUPRENORPHINE BENEFITS

- ❖ Increased anonymity and less intrusive, vs. attending a MAT clinic daily.
- ❖ Increased treatment options/access to treatment.
- ❖ Decrease in high-risk behaviors.
- ❖ Good “step down” option for those tapering from Methadone.

# BUPRENORPHINE LIMITATIONS

- ❖ Expensive.
- ❖ Cannot take if opiates still in your system.
- ❖ Counseling may not be available or affordable in the same area as doctor.
- ❖ Doctors limited to 30 patients the first year with a maximum of 100.

# BUPRENORPHINE LIMITATIONS

- ❖ No regulations for clinics, only “practice guidelines”.
- ❖ Potential for overdose of other opiates due to ceiling effect.
- ❖ Abuse and diversion potential still exists.

# NALTREXONE

- ❖ Long half-life (up to 72 hours)
- ❖ Opioid antagonist-binds, but blocks instead of activates
- ❖ Is NOT an opiate

# NALTREXONE

- ❖ Used primarily to treat alcohol dependence due to blocking neurotransmitters believed to be involved with alcohol dependence.
- ❖ Oral- ReVia
- ❖ Injectable- Vivitrol
- ❖ Implant- not FDA approved

# NALTREXONE TREATMENT

- ❖ Medication is only one component.
- ❖ Average length of treatment is 3 months.
- ❖ Works best with highly motivated patients.



# NALTREXONE BENEFITS

- ❖ Any physician can prescribe in any setting.
- ❖ Relatively inexpensive when compared to Methadone or Buprenorphine.
- ❖ Non-addictive, does not produce dependence, and does not build tolerance.

# BENEFITS CONT.

- ❖ More acceptance in abstinence-based programs.
- ❖ Less stigma than Methadone or Buprenorphine.
- ❖ In KY Medicaid covers, but only oral is 1<sup>st</sup>-tier; injectable is a 3<sup>rd</sup>-tier.

# NALTREXONE LIMITATIONS

- ❖ Does not help with cravings.
- ❖ Poor compliance with oral version.
- ❖ Cannot have any opiates in system when starting treatment or will precipitate withdrawal.

# LIMITATIONS CONT.

- ❖ Injection site reactions
- ❖ Risk of overdose in attempt to break through blockade.
- ❖ Cannot be used with pregnant clients.

# MAT AND PREGNANCY

- ❖ No FDA approved medications.
- ❖ “Cold turkey” detox may trigger miscarriage, pre-term labor.
- ❖ Methadone is recommended and preferred mode of treatment. ( Gold Standard)
- ❖ Subutex shows to be promising.

# MAT AND PREGNANCY CONT.

- ❖ Individualized approach, informed choice.
- ❖ Decreases/ceases cycles of intoxication and withdrawal
- ❖ Decrease in high risk behaviors

# MAT AND PREGNANCY CONT.

- ❖ Prenatal care
- ❖ Additional services-parenting, nutrition
- ❖ Opportunity to address other factors-  
mental health, social supports, basic needs

# KORTOS – Ky Opiate Replacement Treatment Outcome Study – FY 2012

## Abstinence rates increased dramatically ( 6 month review)

- Rx opioid use decreased 91% from admission
- Non-Rx methadone decreased 82%
- Heroin use decreased 100%
- Alcohol intoxication down 67%
- Arrests down 65%
- Decrease in economic hardships down 34%
- Improved recovery supports up 40%



# Three things to remember.....

- 900 % increase in people seeking treatment in the last decade.
- 25,428 Kentuckians were admitted to drug and alcohol treatment programs
- 90+ Kentuckians die EACH MONTH from drug overdoses.
- Prescription drug overdoses is #1 cause of accidental death- has overtaken MVA's

# 2013 Statistics

- Heroin arrests have increased 2,334 percent from 32 in 2008 to 779 in 2012 in Louisville – LMPD
- Seizures of heroin are up 6,688 percent
- LMPD blames 80 percent of burglaries and thefts on heroin addicts
- Jadac ( Jefferson Alcohol Drug Abuse Center)- 90 percent of its calls are heroin related
- Kentucky State Police -heroin submissions; in 2010 were 451, in 2012 they were 1074

# KEY POINTS TO REMEMBER

- ❖ No “perfect” medication that is one size fits all.
- ❖ All 3 medications work significantly better when utilized in combination with counseling, drug screens, etc.
- ❖ MAT may be appropriate for pregnant women but must be closely monitored and have informed consent.
- ❖ Individuals receiving MAT are in recovery!

# CONTACT INFORMATION

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