THE OPIOID ABUSE EPIDEMIC: CAN WE SAVE LIVES?

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Places for People

LEARNING OBJECTIVES

- Describe the current opioid abuse epidemic in the US as well as specific concerns within the state of Missouri.
- Discuss individuals who are considered a high risk for opioid overdose.
- Highlight overdose prevention strategies that have been implemented across the country, including the use of naloxone rescue treatment.

DISCLOSURES

- I do not have a background in policy development.
- I do not treat pain conditions.
- I strongly believe in harm reduction within the context of addiction.
- Just because I am a pharmacist, does not mean that I always support medication therapy.
- While public health statistics are vital to the implementation of global change, my clinical focus is on each individual and their mental or physical health care needs.

ALARMING STATISTICS- *AN EPIDEMIC*

- The CDC has officially declared prescription drug abuse in the US an epidemic
  - 1 in 20 people report using prescription opioids for non-medical reasons
  - In 2010, enough opioid pain relievers were sold to medicate every adult in the US with 5 mg of hydrocodone every 4 hours for 1 month
  - In 2013, ~1.8 million people had an opioid use disorder related to prescription pain relievers & ~517,000 had an opioid use disorder related to heroin use
- Only 16% of Americans believe that the US is making progress in its efforts to reduce prescription drug abuse

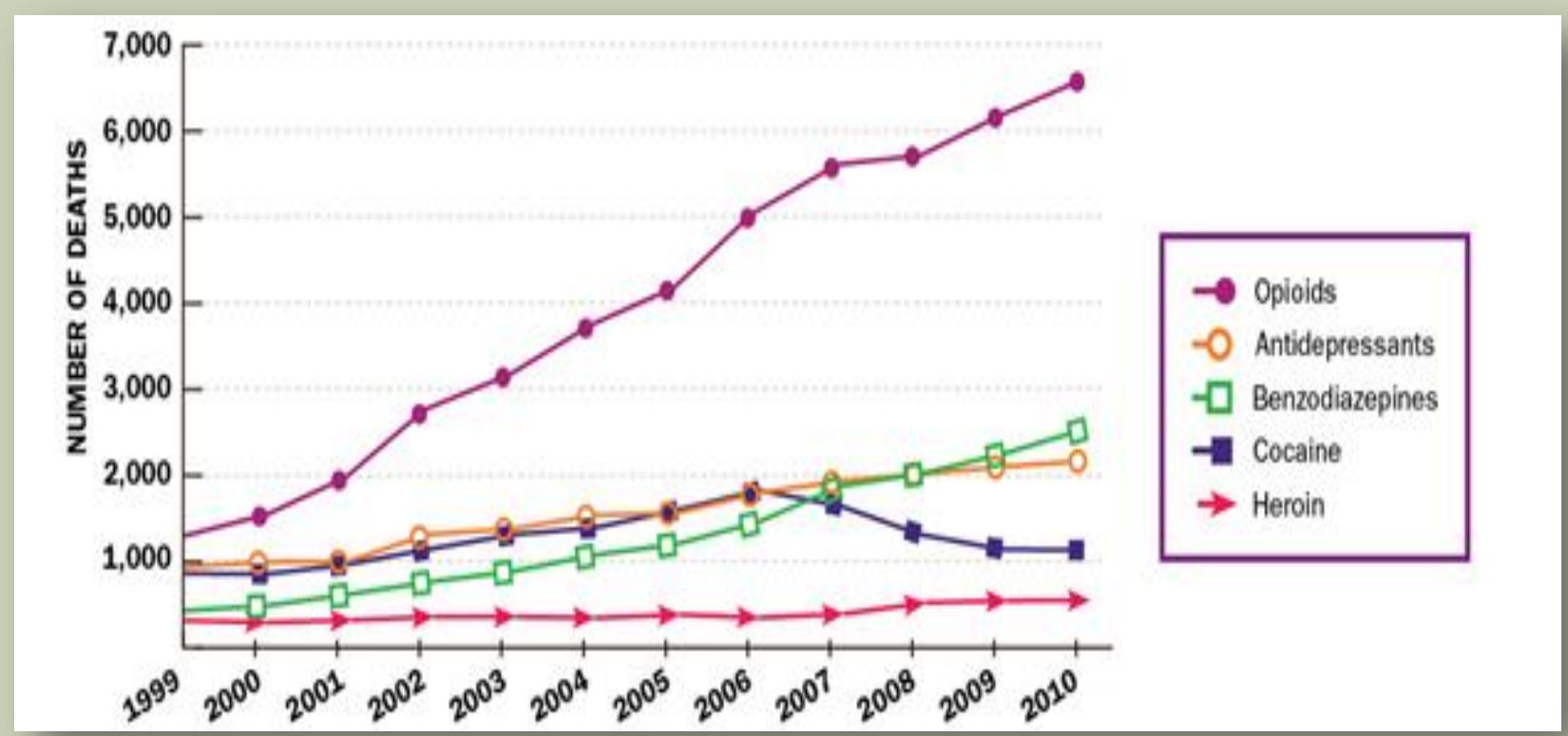
Results from the National Survey on Drug Use and Health: SAMHSA.
National Vital Statistics System. Multiple cause of death file. Atlanta: CDC.

ALARMING STATISTICS- *OVERDOSE DEATHS*

- Drug overdoses kill more Americans than motor vehicle crashes
  - In 2012, of the 41,502 drug overdose deaths in the US, 53% were related to pharmaceuticals
  - Of those 22,114 deaths, 72% involved opioid analgesics & 30% involved benzodiazepines
- Women who lost their lives opioid overdoses rose 415% between 1999 & 2010

Results from the National Survey on Drug Use and Health: SAMHSA. National Vital Statistics System. Multiple cause of death file. Atlanta: CDC.

PRESCRIPTION PAINKILLER OVERDOSE DEATHS: GROWING PROBLEM AMONG WOMEN



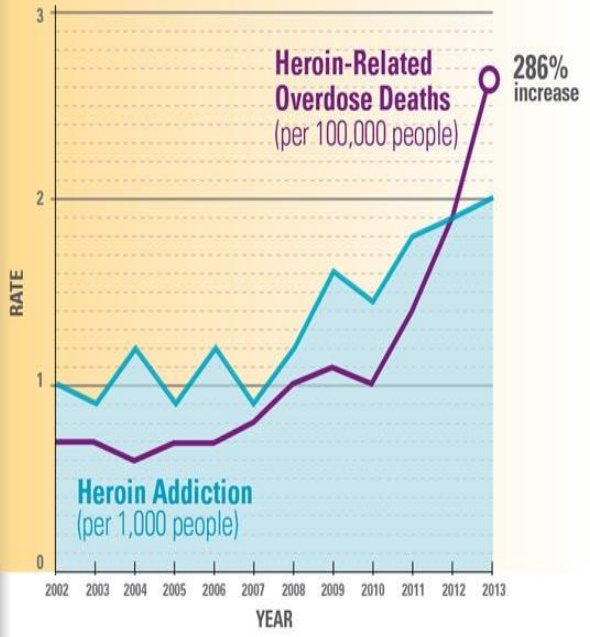
National Vital Statistics System, 1999-2010 (deaths include suicides)

ALARMING STATISTICS- *HEROIN USE RISING*

Heroin Use Has INCREASED Among Most Demographic Groups

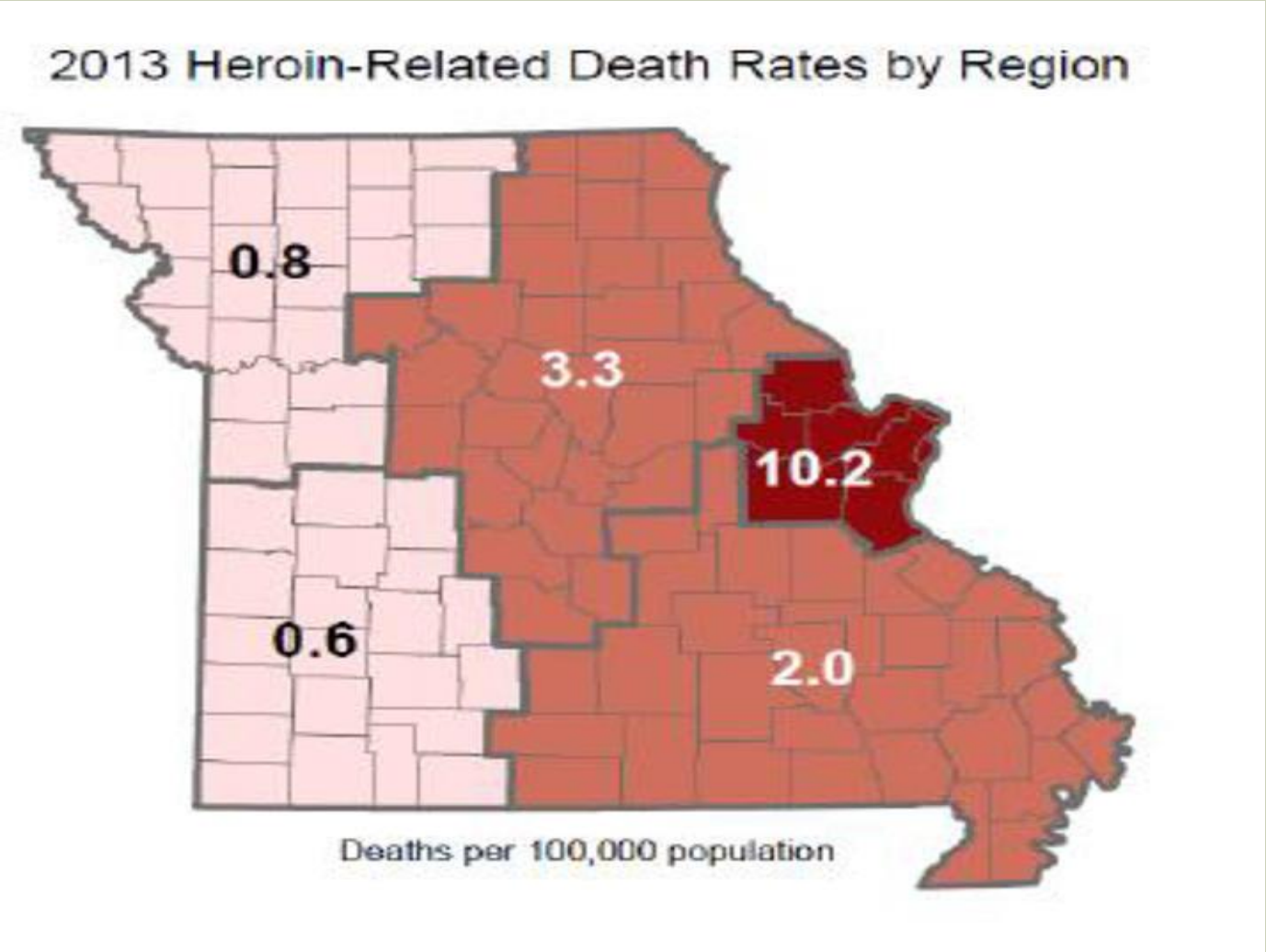
	2002-2004*	2011-2013*	% CHANGE
SEX			
Male	2.4	3.6	50%
Female	0.8	1.6	100%
AGE, YEARS			
12-17	1.8	1.6	--
18-25	3.5	7.3	109%
26 or older	1.2	1.9	58%
RACE/ETHNICITY			
Non-Hispanic white	1.4	3	114%
Other	2	1.7	--
ANNUAL HOUSEHOLD INCOME			
Less than $20,000	3.4	5.5	62%
$20,000–$49,999	1.3	2.3	77%
$50,000 or more	1	1.6	60%
HEALTH INSURANCE COVERAGE			
None	4.2	6.7	60%
Medicaid	4.3	4.7	--
Private or other	0.8	1.3	63%

Heroin Addiction and Overdose Deaths are Climbing



SOURCES: National Survey on Drug Use and Health (NSDUH), 2002-2013.
National Vital Statistics System, 2002-2013.

WHAT ABOUT MISSOURI?



Missouri Department of Mental Health

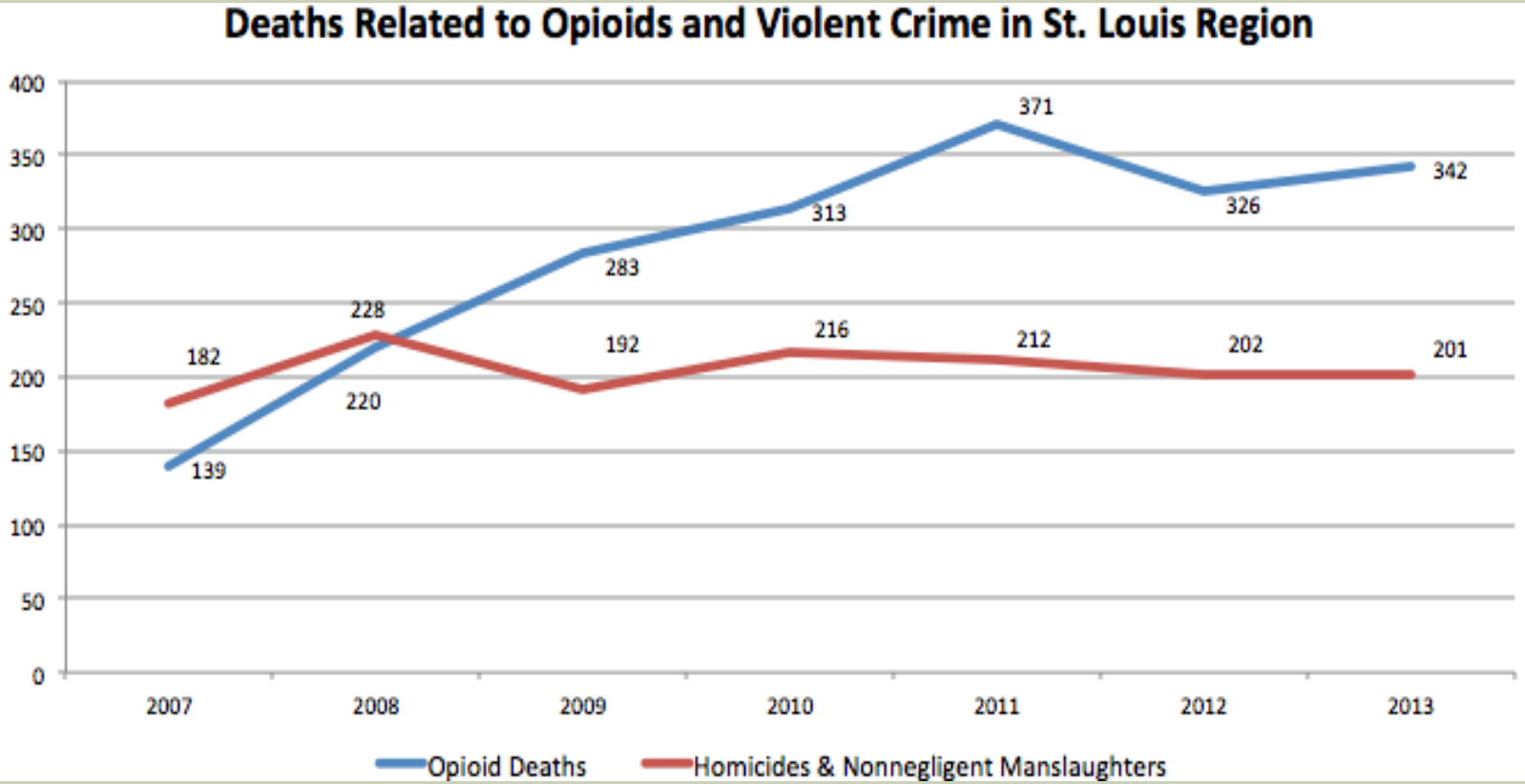
WHAT ABOUT MISSOURI?

Table 1. Drug-poisoning deaths involving heroin per 100,000 population (Medical Examiner data), St. Louis County, 2010-2014.

	2010			2011			2012			2013			2014		
Demographics	Rate per 100,000	95% CI	n	Rate per 100,000	95% CI	n	Rate per 100,000	95% CI	n	Rate per 100,000	95% CI	n	Rate per 100,000	95% CI	n
Saint Louis County	5.7	4.2 to 7.5	52	7.9	6.2 to 9.9	75	6.2	4.6 to 8.0	57	8.1	6.3 to 10.2	70	10.7	8.6 to 13.0	96
Age Group															
< 18 years	0.0	0.0 to 0.0	0	0.0	0.0 to 0.0	0	0.0	0.0 to 0.0	0	0.4*	0.0 to 1.6	1	1.3*	0.3 to 3.2	3
18 – 24 years	9.2*	4.0 to 16.7	8	16.2	8.8 to 25.7	14	‡	‡	‡	‡	‡	‡	18.0	10.3 to 27.6	16
25 – 44 years	14.7	10.3 to 19.9	36	14.7	10.3 to 19.9	36	15.1	10.7 to 20.4	37	20.1	14.8 to 26.1	49	22.5	17.0 to 28.9	55
45 – 64 years	2.8	1.2 to 5.1	8	8.7	5.6 to 12.5	25	4.6	2.4 to 7.4	13	5.7	3.3 to 8.8	16	7.8	4.9 to 11.4	22
65 years and over	0.0	0.0 to 0.0	0	0.0	0.0 to 0.0	0	1.3*	0.2 to 3.5	2	0.0	0.0 to 0.0	0	0.0	0.0 to 0.0	0
Gender															
Male	9.1	6.4 to 12.4	40	12.0	8.9 to 15.6	55	10.6	7.8 to 14.1	47	13.5	10.1 to 17.5	56	17.2	13.4 to 21.5	74
Female	2.7	1.3 to 4.6	12	4.2	2.6 to 6.5	20	2.2*	1.0 to 3.8	10	3.1	1.7 to 5.2	14	4.7	2.9 to 7.0	22
Race															
White	7.1	5.1 to 9.6	43	9.2	6.9 to 11.9	59	6.4	4.5 to 8.7	40	9.0	6.6 to 11.7	52	12.9	10.1 to 16.1	77
Black	4.0*	1.7 to 7.6	9	6.8	3.8 to 10.9	16	7.8	4.5 to 12.5	17	8.1	4.6 to 12.7	17	8.3	4.8 to 12.9	18
Neighborhood Poverty															
Very High	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
High	4.1*	0.9 to 10.2	4	14.4	8.0 to 23.0	16	15.0	8.0 to 24.3	15	12.6	6.6 to 21.4	13	13.6	7.4 to 22.0	15
Medium	7.7	4.5 to 12.2	18	9.2	5.6 to 14.0	22	5.9	3.1 to 9.8	14	9.4	5.6 to 14.2	21	15.7	10.8 to 21.7	36
Low	5.1	3.2 to 7.4	25	6.4	4.3 to 8.9	33	4.1	2.6 to 5.8	24	5.2	3.6 to 7.3	31	6.8	4.8 to 9.0	40

Data from the St. Louis County Medical Examiner shows a rate of 10.7 heroin-related deaths per 100,000 population. Higher than in previous years.

WHAT ABOUT MISSOURI?



TOP ABUSED PRESCRIPTION DRUGS: 2014

1. Oxycodone (OxyContin)
2. Alprazolam (Xanax)
3. Mixed amphetamine salts (Adderall)
4. Methylphenidate (Ritalin)
5. Hydrocodone/acetaminophen (Vicodin)
6. Oxycodone/acetaminophen (Percocet)
7. Diazepam (Valium)
8. Zolpidem (Ambien)
9. Promethazine/codeine syrup (Phenergan VC)
10. Phenobarbital

As listed by CDC, FDA, the U.S. Drug Enforcement Agency (DEA), and nongovernment nonprofit sources on public websites

OPIOID STREET NAMES

Opioid	Street Names
Hydrocodone (Vicodin, Lortab)	Vikes, Watson-387, Norco
Oxycodone (OxyContin, Percocet)	Oxy, Ox, OC, Hillbilly Heroin, Percs
Codeine	Captain Cody, Syrup, Schoolboy
Hydromorphone (Dilaudid)	Juice, smack, dillies
Heroin	Smack, dope, junk, black tar, dragon, china white

DRUGS OF CHOICE: WHY?

Depression? Pain? Psychosis? Inattention? Addiction?

- **Dopamine:** amphetamines, cocaine, alcohol
- **Serotonin:** LSD, alcohol
- **Endorphins:** opioids, alcohol
- **GABA:** benzodiazepines, alcohol
- **Acetylcholine:** nicotine, alcohol

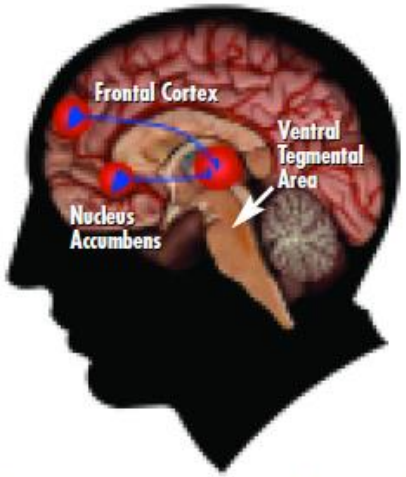
NEUROCHEMICAL IMBALANCE: ADDICTION

Receptor	*Dopamine*	*Opioid*	*Serotonin*
Roles	Mood, attention, psychosis reward pleasure	Analgesia, euphoria, sedation, dysphoria, respiratory depression	Appetite Mood Sleep
Drug Effects	Opioids, nicotine, alcohol, stimulants: all increase dopamine release	Reinforcing effects of endogenous opiates	Stimulants inhibit removal of serotonin from synapses, alcohol depletes

NEUROCHEMICAL IMBALANCE: ADDICTION

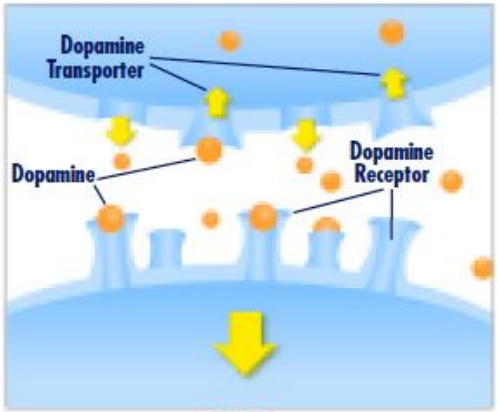
DRUGS OF ABUSE TARGET THE BRAIN'S PLEASURE CENTER

Brain reward (dopamine) pathways

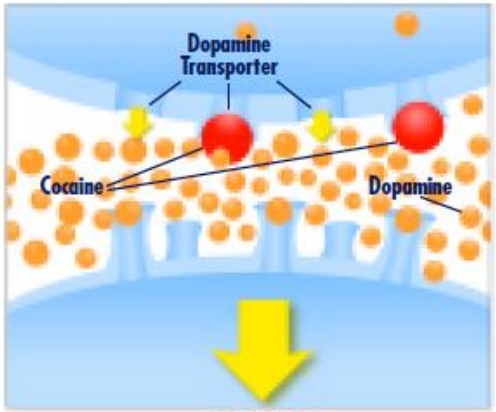


These brain circuits are important for natural rewards such as food, music, and sex.

Drugs of abuse increase dopamine



FOOD



COCAINE

Typically, dopamine increases in response to natural rewards such as food.
When cocaine is taken, dopamine increases are exaggerated, and communication is altered.

OPIOID RECEPTORS

- **Mu:** responsible for analgesia, respiratory depression, euphoria, sedation, decreased gastrointestinal motility, & physical dependence
- **Kappa:** responsible for spinal analgesia, sedation, dyspnea, dependence, dysphoria, & respiratory depression.
- **Delta:** not well studied, may be responsible for psychomimetic & dysphoric effects

Trescot AM, Datta S, Lee M, Hansen H. Opioid Pharmacology. Pain Physician 2008: Opioid Special Issue: 11:S133-S153

OPIOIDS PRODUCTS

- **Naturally Occurring:** morphine, codeine
- **Semi-synthetic:** heroin, hydromorphone (Dilaudid), oxycodone, hydrocodone (Vicodin, Lortab)
- **Synthetic:** meperidine (Demerol), methadone, fentanyl (Duragesic)
  - Tramadol: atypical opioid; analogue of codeine with partial mu agonist activity & serotonin activity

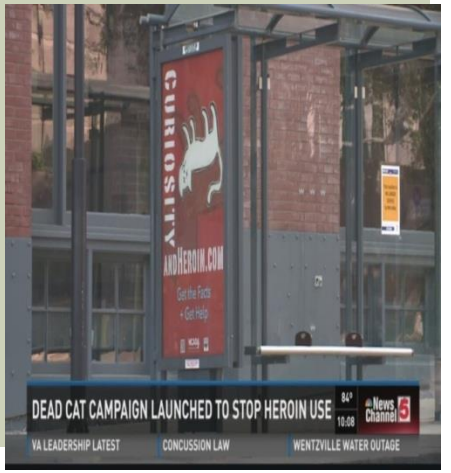
PRESCRIPTION OPIOIDS

Opioid Analgesics Comparative Pharmacology[a,b][34]							
Drug	Analgesic	Antitussive	Constipation	Respiratory depression	Sedation	Emesis	Physical dependence
Phenanthrenes							
Codeine	+	+++	+	+	+	+	+
Hydrocodone	++	+++	nd	nd	nd	nd	++
Hydromorphone	++	++	+	++	+	+	++
Levorphanol	++	++	nd	++	++	+	++
Morphine	++	++	++	++	++	++	++
Oxycodone	++	+++	++	++	++	++	++
Oxymorphone	++	+	+++	+++	nd	+++	+++
Phenylpiperidines							
Fentanyl	++	nd	nd	+	nd	+	nd
Meperidine	++	nd	+	++	+	nd	++
Diphenylheptanes							
Methadone	++	++	+	+	+	+	+

[a]+ = degree of activity from the least (+) to the greatest (+++); nd = no data available.

DIACETYLMORPHINE (HEROIN)

- Peak use in 1960s, 1990s, now
- Direct opioid (mu) receptor agonist
  - Onset: IV (immediate); snorted (5 – 8 min)
  - Half-life: 30 min; duration: 4 – 5 hours
  - Metabolism: metabolized to morphine & 6-monoacetylmorphine (6-MAM)- a metabolite specific to heroin



OPIOID-RELATED DISORDERS

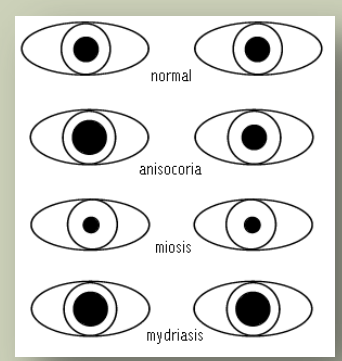
- Opioid Use Disorder
- Opioid Intoxication
- Opioid Withdrawal

OPIOID USE DISORDER, WITHDRAWAL, INTOXICATION?

- Jason is a 53 year-old male diagnosed with prostate cancer with bone metastasis.
- On top of his chemotherapy treatment, he receives treatment for bone pain with OxyContin 80 mg daily and oxycodone 10 mg q 4 hours for break-through pain.
- Last month his wife phoned 911 because she found Jason unresponsive on the couch.

Opioid Intoxication Opioid Withdrawal*

Opioid Intoxication	Opioid Withdrawal*
Euphoria	Lacrimation
Dysphoria	Rhinorrhea
Apathy	Dilated pupils
Motor retardation	Goosebumps
Sedation	Sweating, fever
Slurred speech	Diarrhea
Attention impairment	Yawning
Pinpoint pupils	Insomnia
Respiratory depression	Muscle aching



*Duration of withdrawal = 7 – 14 days.

OPIOID USE DISORDER, WITHDRAWAL, INTOXICATION?

- Stacy is a 34 year-old female presenting to the emergency department for treatment of an infected abscess on her arm.
- She experiences chronic back pain from a car accident 2 years ago.
- In an effort to gain better control of her pain, she started using heroin 3 months ago, on top of her routine treatment with oxycodone, cyclobenzaprine, & alprazolam.
- After testing positive for heroin use, she was released from treatment by her PCP. She now uses heroin daily.

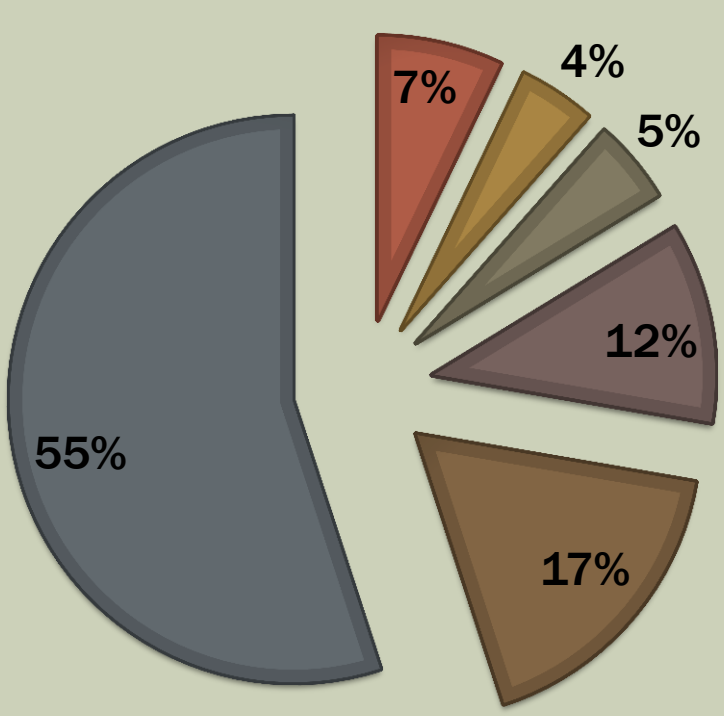
OPIOID USE DISORDER

Problematic pattern of opioid use leading to clinically significant impairment within a 1 year period, consisting of ≥ 2 of the following:

1. Taken in larger amounts over longer period then intended
2. Unsuccessful efforts to stop or decrease use
3. Excessive time spent obtaining opioid, using, or recovering from use
4. Craving to use
5. Use results in failure to fulfill work, school, home obligations
6. Use continues despite negative consequences
7. Opioid use becomes more important than social, work, or recreational activities
8. Continued use despite risky situations
9. Persistent use despite knowledge of physical or psychological problems
10. Tolerance has developed (need more opioid to achieve desired effects)
11. Withdrawal occurs when opioid is stopped

American Psychiatric Association: Diagnostic & Statistical Manual of Mental Disorders, 5th edition. Arlington, VA, American Psychiatric Association, 2013.

People Who Abuse Prescription Opioids Obtain Them From….



- Other source
- Got from drug dealer or stranger
- Took from friend or relative without asking
- Bought from friend or relative
- Prescribed by one doctor
- Obtained free from friend or relative

2010 National Survey on Drug Use & Health: SAMHSA, Office of Applied Studies; 2011.

PRESCRIPTION OPIOID ABUSE

- Almost all prescription drugs involved in overdoses come from prescriptions originally (not pharmacy theft)
  - Frequently diverted to people using them without prescriptions
- Most prescriptions come from primary care physicians, internal medicine physicians, & dentists; not specialists
  - Roughly 20% of prescribers prescribe 80% of all prescription opioids

WARNING SIGNS OF ABUSE

- Frequently running out of medication
- Reporting lost or stolen prescriptions
- Presenting with prescriptions from multiple prescribers
- Filling prescriptions at multiple pharmacies
- Urine drug screen negative
- Reports allergies to all other drugs but ….
- Frequently demonstrating signs & symptoms of intoxication

PRESCRIPTION OPIOID ABUSE RISK FACTORS

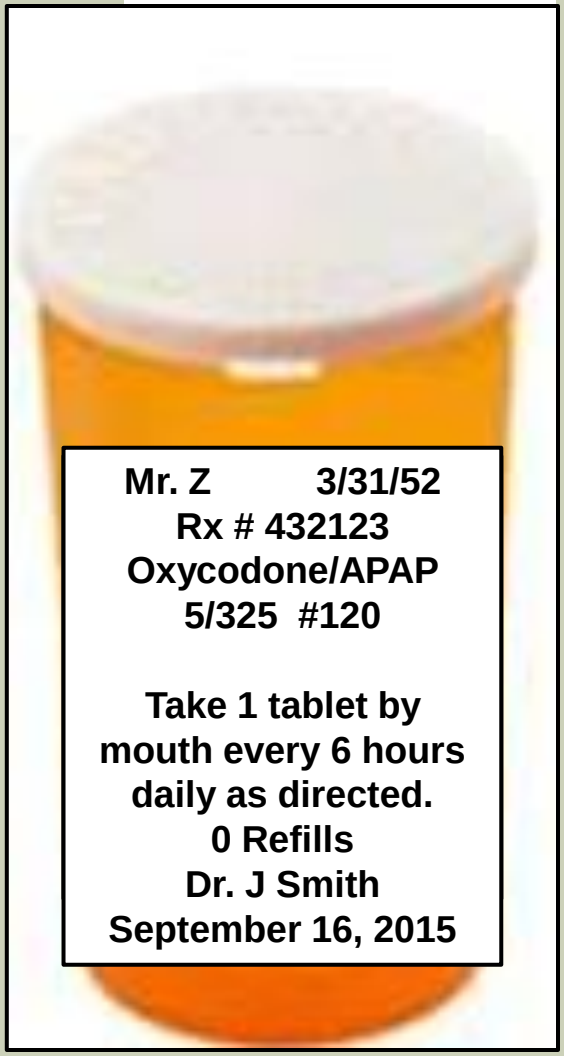
- Those who abuse prescription opioids (vs heroin):
  - Are more likely to have complaints of pain
  - Are more likely to be in psychiatric treatment
  - Have greater social stability
  - Are less likely to use other illicit substances

HEROIN ABUSE RISK FACTORS

- Male gender, aged 18–25 years
- Non-Hispanic white race/ethnicity
- Residence in a large urban area
- <$20,000 annual household income with no health insurance or Medicaid
- Past-year abuse or dependence on alcohol, marijuana, cocaine, or opioid pain relievers

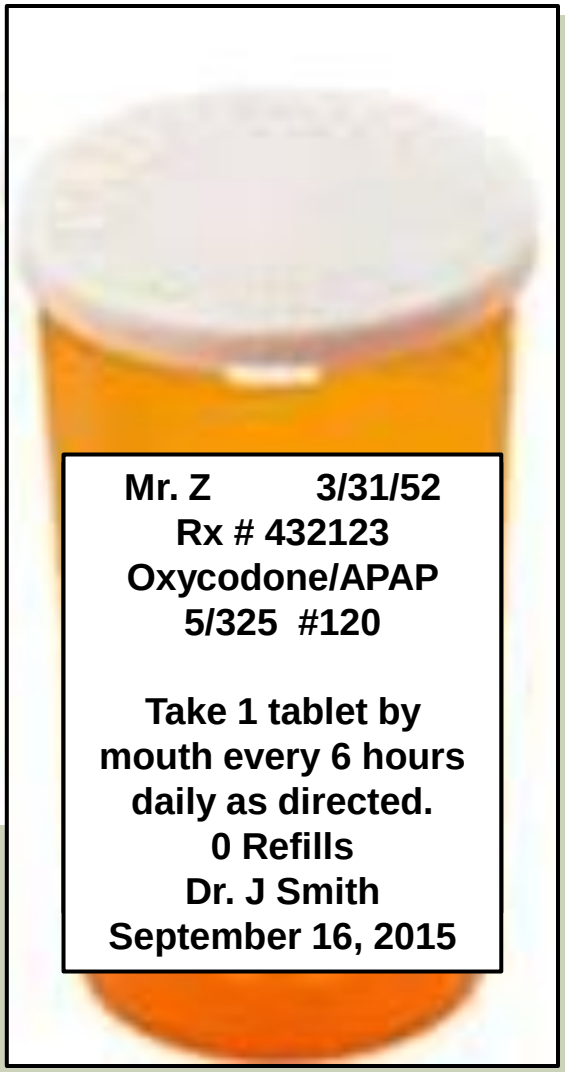
HIGH RISK SITUATIONS

- C.Z. is a 35 year old male client with schizophrenia, generalized anxiety disorder, PTSD, diabetes, chronic back pain, & sleep apnea
- They obtain the following Rx:
  - What is the abuse potential associated with this medication?
  - What are the risks associated with this treatment?



HIGH RISK SITUATIONS

- He also takes the following other medications:
  - Clonazepam 1 mg twice daily
  - Lisinopril 10 mg daily
  - Acetaminophen 500 mg as needed
  - Prazosin 2 mg at bedtime
  - Quetiapine 600 mg at bedtime
- What are your concerns?



DANGEROUS COMBINATIONS

- Multiple CNS Depressants:
  - Opioids
  - Benzodiazepines- alprazolam, diazepam, clonazepam, chlordiazepoxide
  - Z-hypnotics- zolpidem, zaleplon, eszopiclone
  - Muscle relaxants- cyclobenzaprine, nabumetone, carisoprodol
- Adding alcohol to the mix:
  - Benzodiazepines + alcohol: ↑ BZD absorption & ↓ metabolism & clearance of BZD
  - Stimulants mask effects of alcohol; leads to people drinking more than usual

WHO IS AT RISK FOR OVERDOSE?

- Taking multiple controlled substance prescriptions from multiple providers “doctor shopping”
- Taking high daily dosages of prescription opioids &/or misuse multiple abuse-prone prescription drugs
- Using pills & heroin within 12 hours of each other is the single largest cause of fatal overdose
- Lower socioeconomic status & those living in rural areas
- People with co-occurring HIV, heart disease, seizure disorders, mental illnesses, history of substance use disorder
- Recent discharge from incarceration or substance use facility

IF OPIOID ABUSE IS AN EPIDEMIC .....

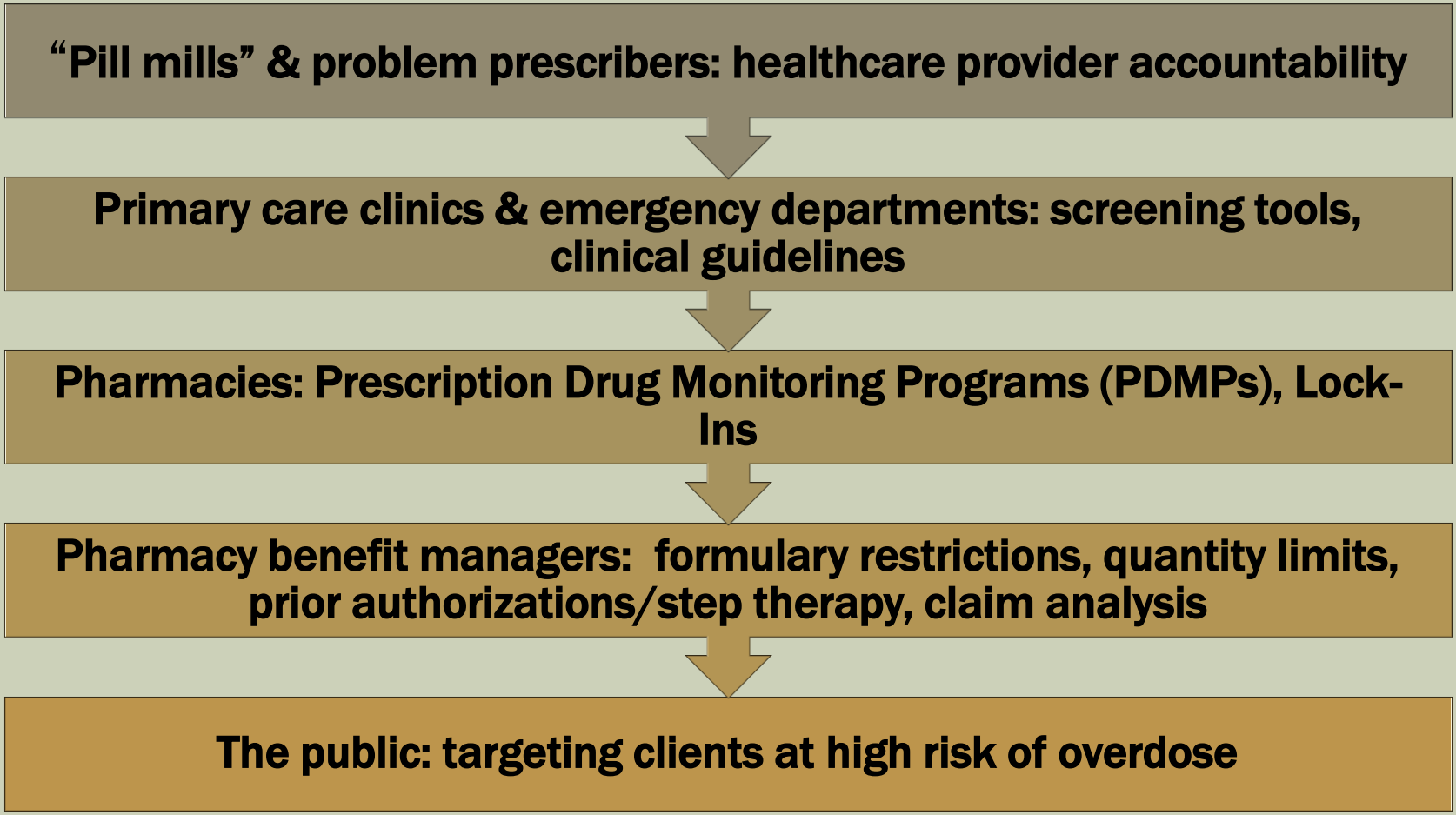
THEN WHAT ARE WE DOING ABOUT IT?

PRESCRIPTION DRUG ABUSE: PREVENTION STRATEGIES

Collaboration among state licensing boards, public health agencies, state medical & pharmacy associations

1. Education & Advocacy
2. Prescription Drug Monitoring Programs
3. Proper Drug Disposal
4. Enforcement
5. Naloxone Rescue Therapy

INTERVENTION POINTS



EDUCATION & ADVOCACY

- Only 1 in 10 Americans with a substance use disorder actively receive treatment
  - Break-down stigmas that prevent treatment
  - Treatment outcomes are likely poor if the substance abuse disorder & psychiatric disorder are not both collectively addressed in treatment
- 24 states participating in Medicaid expansion, allowing for the expansion of substance abuse services & treatment
  - Encourage the funding & increased access of substance abuse treatment programs

EDUCATION & ADVOCACY

- Talk about opioid prescribing, prescription drug abuse, & naloxone rescue therapy
  - Target audiences: pain management specialists, psychiatric care providers, family medicine specialists, emergency room physicians, physician assistants, advanced practice nurses
- SAMHSA & NIDA provide free of charge continuing medical education courses: http://www.opioidprescribing.com

PRESCRIPTION DRUG MONITORING PROGRAMS

- State-run electronic databases used to track prescribing & dispensing of controlled prescription drugs
  - 49 states have operational PDMPs; **Missouri senate approved a program in April**
- Provide critical information regarding controlled substance prescription history, number of prescribers, high risk individuals

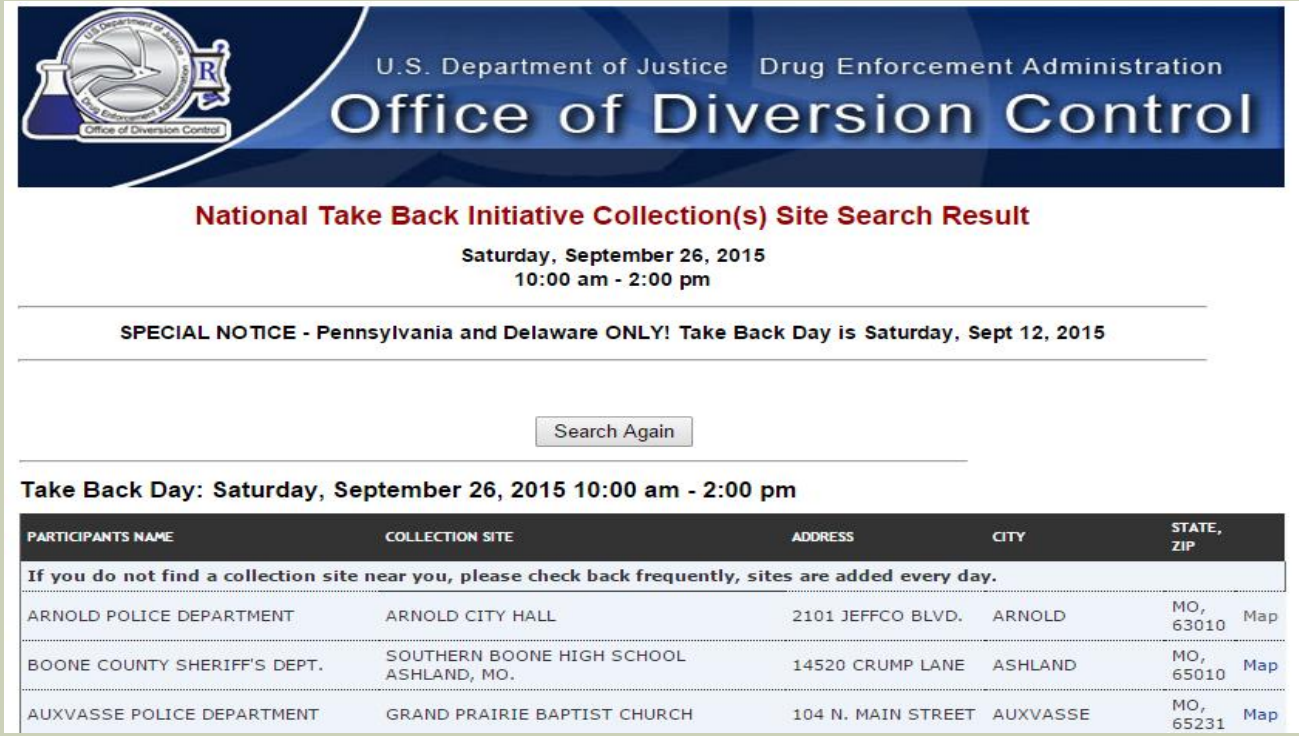
PRESCRIPTION DRUG MONITORING PROGRAMS

- Information is stored in a central database and can be accessed by authorized users
  - Physicians, dentists, nurse practitioners, other health care professionals authorized to prescribe controlled substances
  - Community pharmacies who dispense controlled substances
  - Most states allow regulatory & law enforcement agencies involved in drug-related investigations, enabling them to identify illegal trafficking or misuse of prescription drugs
- Programs are targeted toward reducing the incidence of ‘doctor shopping’

PRESCRIPTION DRUG MONITORING PROGRAMS

PROPER DRUG DISPOSAL

- No private entity may serve as or fund take-back programs
- All medications collected & disposed of under the program must be managed in accordance with federal & state laws
- Programs will be centered around law enforcement facilities



U.S. Department of Justice Drug Enforcement Administration

Office of Diversion Control

National Take Back Initiative Collection(s) Site Search Result

Saturday, September 26, 2015
10:00 am - 2:00 pm

SPECIAL NOTICE - Pennsylvania and Delaware ONLY! Take Back Day is Saturday, Sept 12, 2015

Search Again

Take Back Day: Saturday, September 26, 2015 10:00 am - 2:00 pm

PARTICIPANTS NAME	COLLECTION SITE	ADDRESS	CITY	STATE, ZIP	
If you do not find a collection site near you, please check back frequently, sites are added every day.					
ARNOLD POLICE DEPARTMENT	ARNOLD CITY HALL	2101 JEFFCO BLVD.	ARNOLD	MO, 63010	Map
BOONE COUNTY SHERIFF'S DEPT.	SOUTHERN BOONE HIGH SCHOOL ASHLAND, MO.	14520 CRUMP LANE	ASHLAND	MO, 65010	Map
AUXVASSE POLICE DEPARTMENT	GRAND PRAIRIE BAPTIST CHURCH	104 N. MAIN STREET	AUXVASSE	MO, 65231	Map

HARM REDUCTION: MISSOURI

- Does the state permit access to clean syringes for people who inject drugs? YES
- Does the state have naloxone training & distribution programs available to the public at syringe exchange programs or other facilities? NO
- Does the state have a 911 Good Samaritan law? NO

PROJECT LAZARUS

- https://www.youtube.com/watch?v=oWopsRaeY6M
- A public health model based on the premises that drug overdose deaths are preventable & that all communities are ultimately responsible for their own health.
- Facilitated overdose prevention in Wilkes in collaboration with Health Department, law enforcement, schools, clinicians, hospitals, & faith community.
  - In the past 3 years: overdose deaths ↓ 42%; drug-related hospital visits ↓ 15%; the number of prescriptions for controlled substances stabilized; overdose prevention is taught in all county schools.

STATES WITH NALOXONE ACCESS LAWS

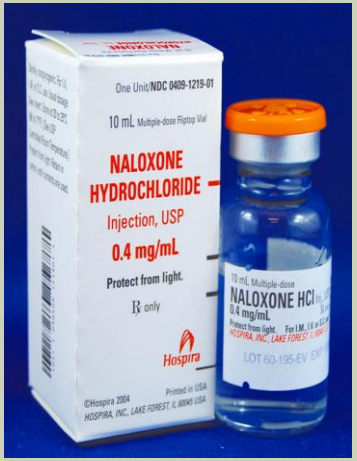
COLLABORATIVE PRACTICE EXAMPLE: RHODE ISLAND

- CPA established in 2012, allowing one physician to authorize pharmacists at multiple pharmacies within a single chain to dispense naloxone without a prescription
- As of March 2014, the standing order allows for police departments and other community organizations to also obtain naloxone

Traynor K. AJHP News. 2014. Online. Available at: http://www.ashp.org/menu/News/PharmacyNews/NewsArticle.aspx?id=4086.

NALOXONE RESCUE THERAPY

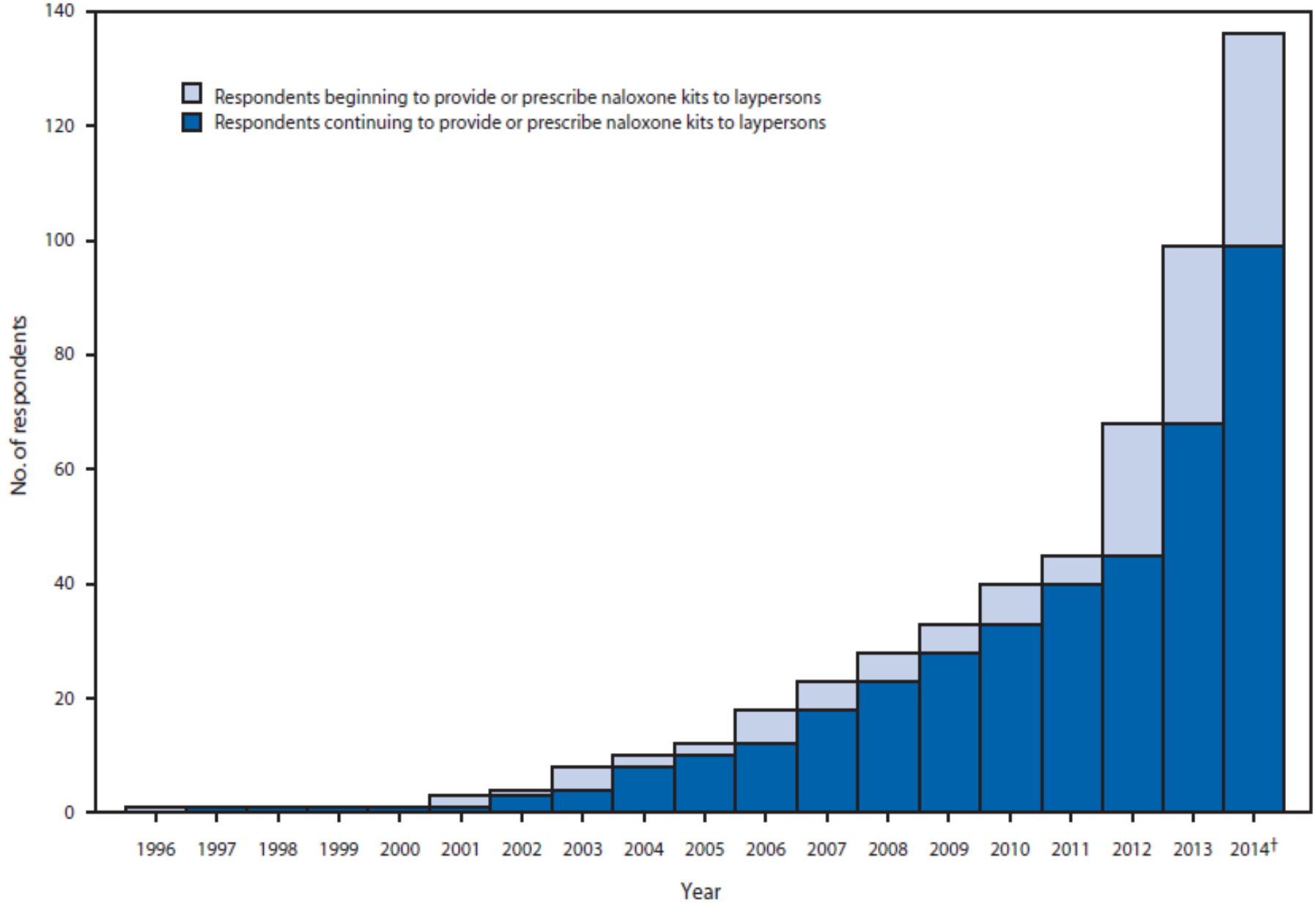
- Naloxone is a competitive antagonist at all opioid receptor sites
  - Mu, Kappa, Sigma opioid receptors
  - Reverses the analgesic, dysphoric, and other pharmacologic effects of opioids
- Is it safe to use?
  - Yes, naloxone has been shown to have little interaction in the body without the presence of opioids
  - Rapid opioid reversal:
    - Hypertension, tachycardia, sweating, recurring pain, agitation, other withdrawal symptoms



WHO SHOULD GET NALOXONE

1. Prescribed long-term opioid therapy; doses > 50 mg of morphine equivalent/day
2. Prescribed rotating opioid medication regimens
3. Taking an opioid plus other CNS depressants
4. Prescribed or taking an opioid with co-occurring renal/hepatic dysfunction, cardiovascular disease, respiratory disorders (sleep apnea), or HIV/AIDS
5. Use heroin
6. Recently discharged from a substance abuse treatment facility or from an acute medical center following opioid intoxication or poisoning
7. Recently released from jail & history of opioid abuse

FIGURE 1. Number of survey respondents reporting beginning or continuing to provide naloxone kits to laypersons, by year — United States, 1996–June 2014*†



WHEN TO ADMINISTER NALOXONE

1. Identify if someone is experiencing an overdose
   - No response upon yelling their name or vigorously rubbing chest with knuckles
   - Blue lips or fingertips
   - Slow breathing (< 8 breaths/minute)
   - Limp body or choking/gurgling/snoring noise
2. Call 911 for help
3. If breathing is shallow or non-existent, perform mouth-to-mouth rescue breathing

WHEN TO ADMINISTER NALOXONE

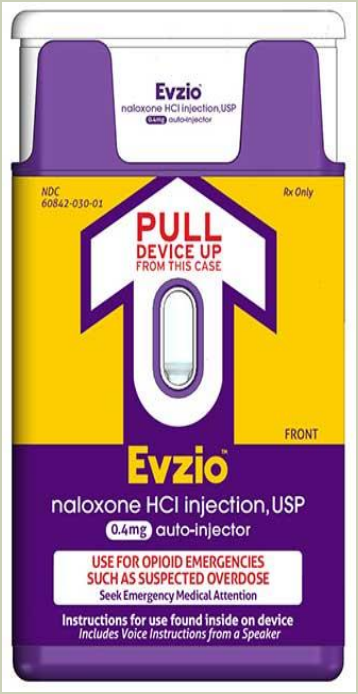
4. Administer naloxone via IM or intranasal delivery.
   - 1 mg can reverse effect of 25mg heroin
   - Prompt reversal of opioid agonists (hypotension and sedative effects)
   - Increase in respiratory rate within 1 – 2 minutes
5. Stay with the person & place the person in the recovery position

HOW TO ADMINISTER NALOXONE

- Use a 1-1.5 inch 25 gauge needle & 3mL syringe
- Inject 1mL into muscle, can be deltoid or outer thigh through clothing
- Single Dose or Multi-dose vials are available

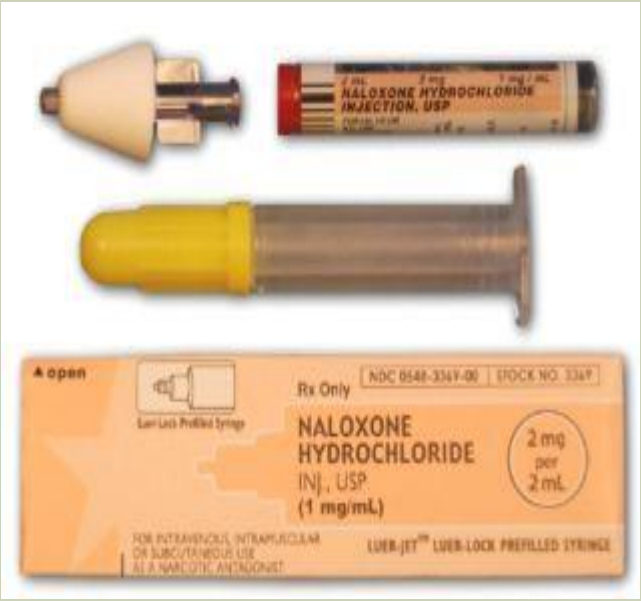
NALOXONE AUTO-INJECTOR

- Pull auto-injector out of case from white end
- Follow automated voice prompts
- Remove red cap
- Place black end against patients outer thigh, hold firmly for 5 seconds
- *Demo*



NALOXONE INTRANASAL

- Remove yellow caps at both ends of syringe & red cap from naloxone
- Attach to luer lock syringe & twist naloxone into barrel of syringe
- Place nasal applicator into one nostril of patient, administer half of medication. Repeat for other nostril.



CHOOSING AN OPTION: COST

- ~ $37.00* per intranasal kit containing 2 naloxone 2mg/2mL syringes with atomizers, face shield, gloves, instructions, and pouch
- ~ $46.00* per intramuscular kit containing 2 naloxone 0.4mg/mL vials, two 3 mL syringes, face shield, gloves, alcohol swabs, instructions, and pouch
- AWP ~ $690.00# per autoinjector

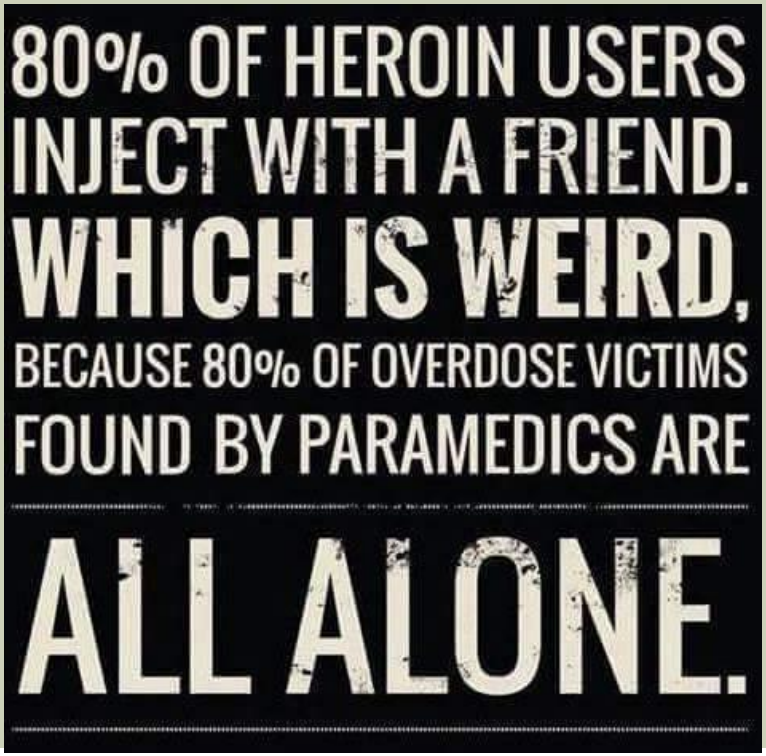
*Estimated cost for VA hospitals as of Fall 2014
#Current cost for McKesson in Sept 2015

NALOXONE PRODUCTS

	Intranasal kit	Intramuscular kit	IM autoinjector
Initial dose	1mg/mL per nostril	0.4mg/1mL IM (through clothing if needed)	0.4mg/0.4mL into anterolateral aspect of thigh (through clothing if needed)
When to repeat	After 3-5 min if no response or if apnea/hypopnea recurs	After 3-5 min if no response or if apnea/hypopnea recurs	After 2-3 min if no response

GOOD SAMARITAN LAWS

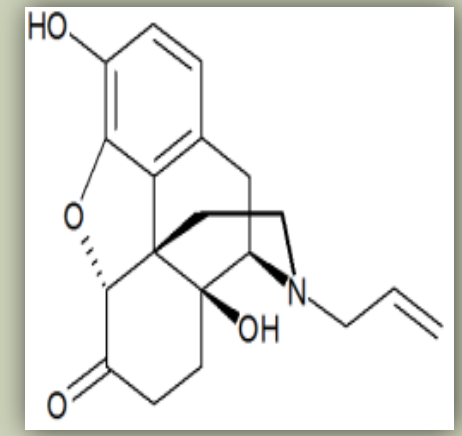
- Policy providing limited immunity from arrest or prosecution for minor drug law violations for people who summon help at the scene of an overdose



MO HOUSE BILL NO. 2040

- As of August 2014
- Any qualified 1st responder may obtain & administer naloxone to a person suffering from an apparent narcotic or opiate-related overdose
- Any licensed drug distributor or pharmacy in MO may sell naloxone to qualified 1st responder agencies to allow the agency to stock naloxone for overdose rival

IT'S SIMPLE. NALOXONE SAVES LIVES.



Prescribe to Prevent: www.prescribetoprevent.org

Website designed for prescribers, pharmacists, patients, & advocacy groups offering educational materials on naloxone rescue treatment & overdose prevention strategies

Questions?

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