



Department of
**Mental Health &
Substance Abuse Services**

Update on the Opioid Epidemic

Webinar

Southeast AIDS Education and Training Center
Vanderbilt University Department of Medicine

Stephen Loyd, M.D.; Assistant Commissioner of Substance Abuse Services

Stephen Loyd, M.D.

- Receives no commercial support, in any form, from pharmaceutical companies or anyone else
- Assistant Commissioner for Substance Abuse Services, Tennessee Department of Mental Health and Substance Abuse Services; Associate Professor, Department of Internal Medicine, Quillen College of Medicine, East Tennessee State University
- Expert witness, ***U.S. Attorney, TBI, FBI, DEA, IRS, Commonwealth Attorney Virginia and Kentucky, Virginia State Police, Tennessee Board of Medical Specialties***
- Member, Greene County Drug Court, Judge Kenneth Bailey and member of the National Association of Drug Court Professionals
- Speaker, ***Proper Prescribing of Controlled Substances***
- Founding Partner, ***High Point Clinic***, a non-profit clinic in Johnson City, Tennessee, with an interest in opiate addicted pregnant women
- Recovering from addiction to opiates, benzodiazepines and alcohol since July 2004
- Advocate for ***Proposition 46*** in the state of California
- ***2014 Advocate for Action***, Office of National Drug Control Policy, Executive Office of the President of the United States
- Tennessee Volunteer Fan and Alum and Father to **Heath** and **Hayley** and husband of 27 years to **Karen**

Learning Objectives

- Understand the neurobiological basis of addictive disease
- Understand how deadly the stigma of opioid use disorder
- Overview of prescription drug abuse and how it relates as a driver for heroin and fentanyl abuse
- Review of an actual case of over-prescribing opioid pain medications and understand why treatment for opioid addiction matters
- Review of the Center for Disease Control's chronic pain guidelines
- Understand CSMD data and review of prescribing trends as they relate to increasing heroin and fentanyl use

People's Views- Pure Venom

- “How about treatment that works instead of ridiculous 12-Step AA/NA cult “Higher Power” nonsense that has a 100% failure rate?”
- “Pain management specialist are hard to come by and not covered by my insurance. My physicians will not treat my pain properly and threaten me with no medication.”
- “99% of addicts are personality disordered. They are mentally retarded.”

Stigma Building

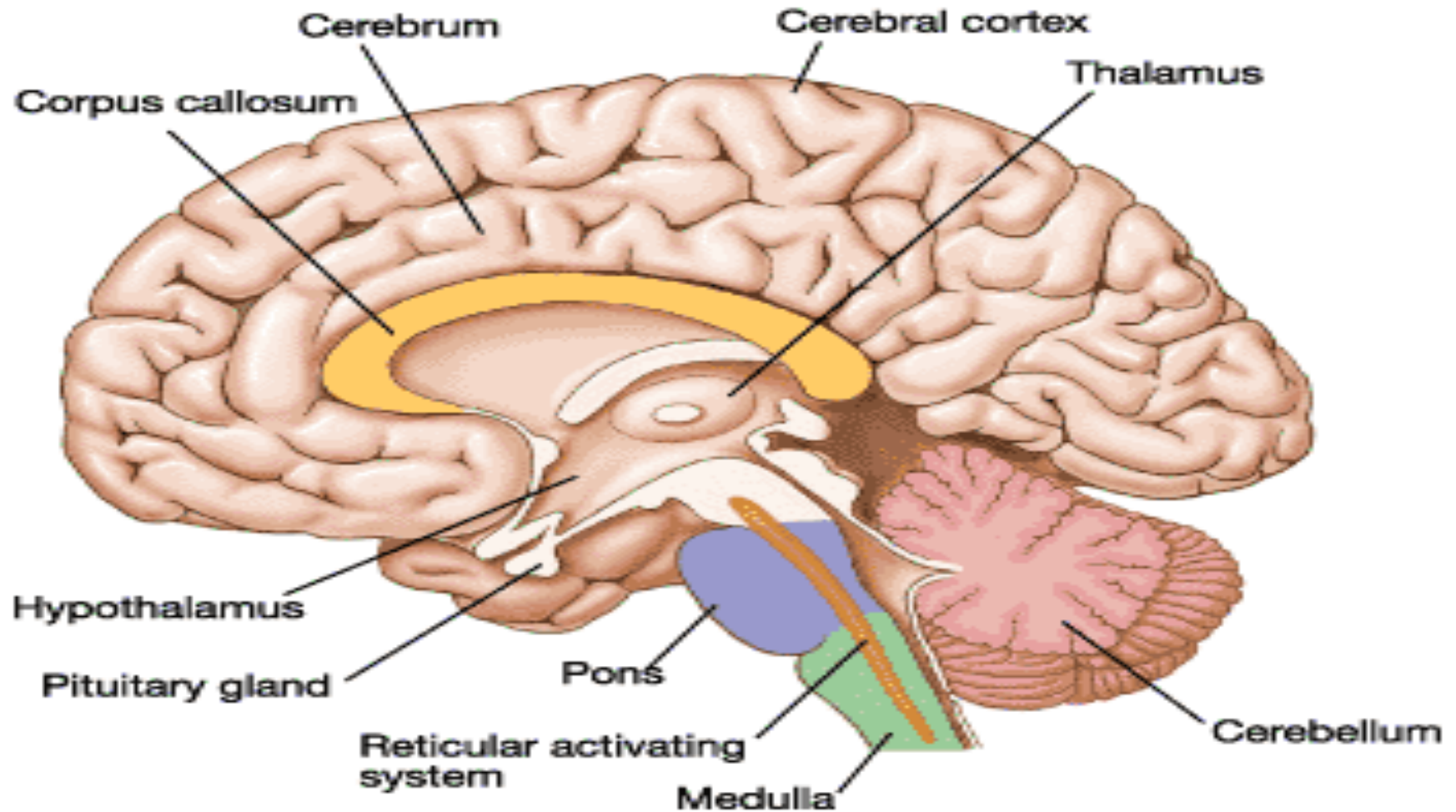


Dependence vs. Addiction

- **Dependence**- once the drug is stopped, a predictable physiological withdrawal syndrome occurs
- **Addiction**- the compulsive use, loss of control and continued use despite adverse consequences; hallmark is *cravings*.



Hi-Jacking of the Limbic System (Rewards)



Biopsychosocial Model



Porter and Jick Letter- Ground Zero

To the Editor: Recently we examined our current files to determine the incidence of narcotic addiction in 39,946 hospitalized medical patients 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 or addiction. The addiction was considered major in only one instance. The drugs implicated were meperidine in two patients, 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.

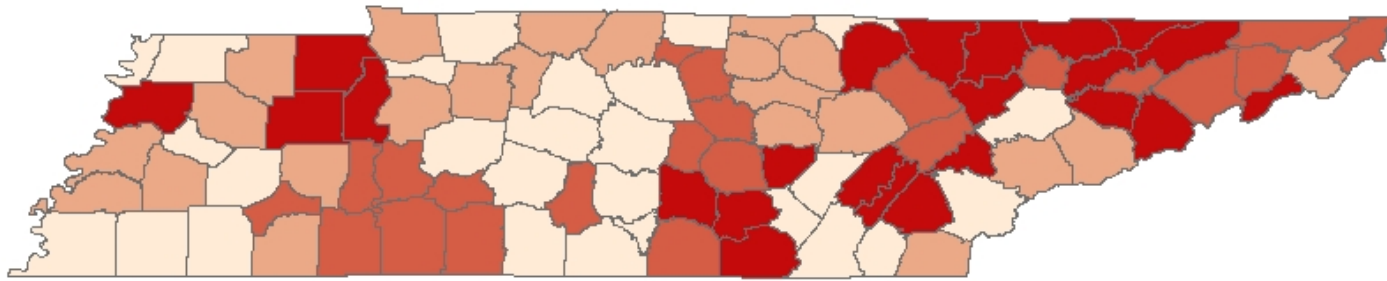
Boston Collaborative Drug Surveillance Program

Boston University Medical Center

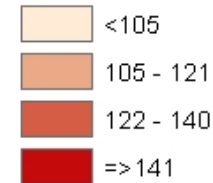
Waltham, MA 02154



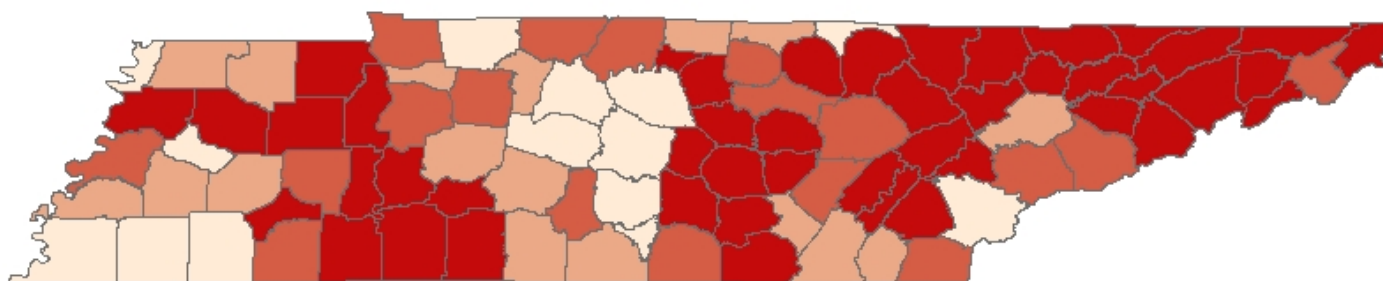
Opioid Prescription Rates by County— TN, 2007



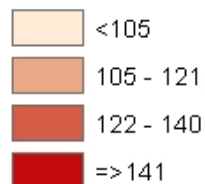
Prescription Rate per 100 Population



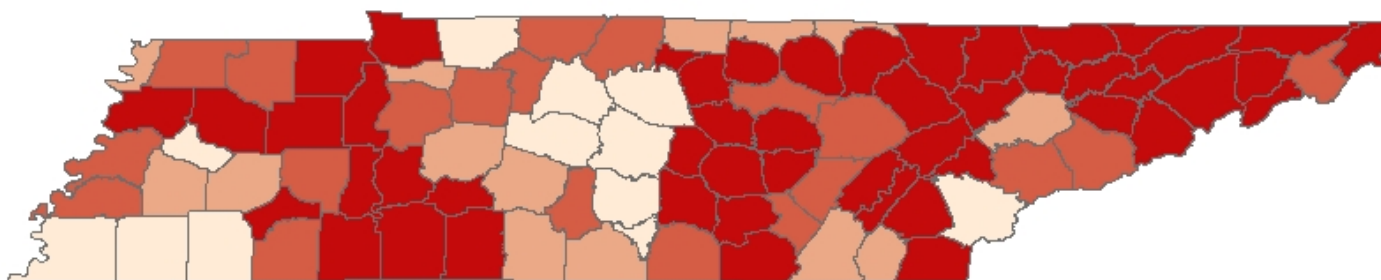
Opioid Prescription Rates by County— TN, 2008



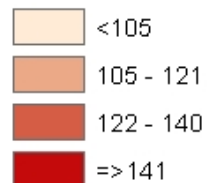
Prescription Rate per 100 Population



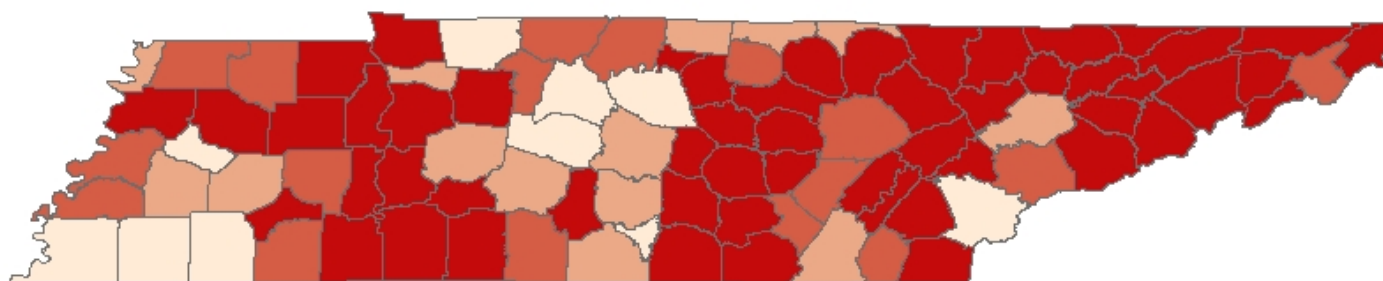
Opioid Prescription Rates by County— TN, 2009



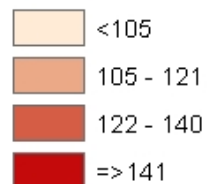
Prescription Rate per 100 Population



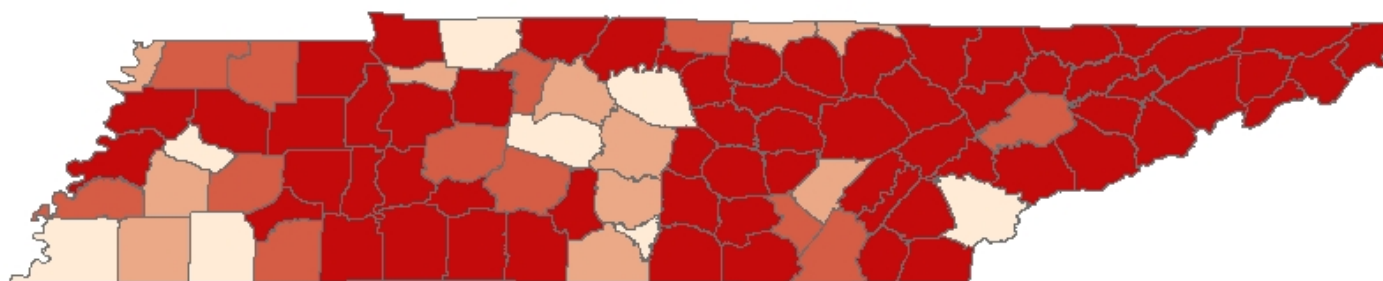
Opioid Prescription Rates by County— TN, 2010



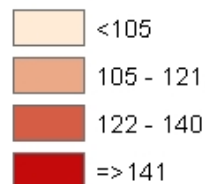
Prescription Rate per 100 Population



Opioid Prescription Rates by County— TN, 2011



Prescription Rate per 100 Population



Case

- 9/06- 26 year old female presents to a Family Medicine Clinic
- Previously seen in another city, where she lives, for a diagnosis of ***chronic pyelonephritis***
- Chief Complaint: “My back hurts”
- PE: RLQ, LLQ and suprapubic pain
- No urine drug screen was ordered

Continued

- Past Medical History: acute pyelonephritis
- Social History: married with multiple marital problems
 - Husband beat her
 - Now separated, single mom with 2 children, 6 & 8
 - Husband skipping child support
- Employment History: CNA, pharmacy tech
- Previous Imaging: U/S kidneys- normal
- Current meds: oxycontin 40mg TID, Percocet 10 mg QID, Roxicet 30 mg QID

Clinical Course

- Multiple requests for increases in pain meds
- Requested meds by name- oxycontin/percocet
- April- she reports increasing anxiety
- Neck pain- 10/10, no imaging ordered
 - 1 month later- neck pain worse??
- July- crying daily, “life is in complete disarray”

Diversion????

- Same July- UDS was negative for hydromorphone (Dilaudid)
- She was prescribed dilaudid 8 mg, #370 per month, 12 pills per day
- Detection time for lab- 2-4 days for hydromorphone
- She had to have skipped 24-48 pills
- Her prescriptions continued monthly without investigation for possible diversion

Prescription at the Time- Monthly!!

- Ambien 10 mg #30
- SOMA 350mg #60
- Oxycontin 80 mg #300
- Roxicodone 30mg #400
- Dilaudid 8mg #370
- Xanax 2mg #120
- Mepergan fortis (Demerol) #60 (with a note that says: “try not to use”)
 - 1340 pills/month, 44 pills/day

Street Value

- Oxycontin 80 mg #300 \$24,000.00
- Roxicodone 30 mg #400 \$12,000.00
- Dilaudid 8 mg #370 \$37,000.00
- Demerol 25 mg #60 \$1,500.00
- Xanax 2 mg #120 \$240.00
- Assuming \$1.00/mg- conservative street value=
\$74,740.00/month

Case Continued

- May and June 1 year later- pill counts came up short
- July- office could not reach patient for a pill count and when they did reach her, she was on her way to Florida and couldn't come in. (all of these were in violation of the informed consent that she had signed)

What a Long Strange Trip its Been

- June, 1 year later- Office Note: “Her appearance was very strange today. Wearing blonde wig with her natural hair sticking out everywhere. Wearing dark sunglasses. Wearing a long men’s shirt with tears in it and doesn’t appear to have on anything under it.” “Her pill count came up short today.” **Really?!?!?! Shocker!!!**
- ***How does the doctor’s office respond?***

Hard to Fathom

- Oxycontin 80 mg #360
- Roxicodone 30 mg #450
- Xanax 2 mg #120
- Demerol 100 mg #40
- 970 pills of high potency narcotics
- ***No UDS***

Red Flags

- Prescribed controlled substances in quantities and frequency inappropriate for her complaint or illness
- Hard to determine what her source of pain was
- She had obvious behavioral problems
- She was being abused
- She had a dramatic and compelling but vague complaint (10/10 pain)

Red Flags

- Pressured her doctor for increases in her medication
- She had a crescendo pattern of drug use with progression to multiple drugs
- She asked for drugs by name
- She worked in healthcare (CNA, pharm tech)
- UDS's were inconsistent
- Pill counts were short- either selling them or taking more than prescribed

Conclusion

- The controlled substances prescribed in this case were outside the scope of accepted medical practice and were not for a legitimate medical purpose.

TN Overdose Incidence Per 100,000 People

2015	1,451 deaths	22.0 rate
2014	1,263 deaths	19.3 rate
2013	1,166 deaths	17.9 rate
2012	1,094 deaths	16.9 rate
2011	1,062 deaths	16.6 rate

Opioid Utilization by State

**A State Comparison: Annual Prescriptions per Capita 2015
Opioid Products**

Rank	State	Rx per Capita	Rank	State	Rx per Capita
1	Alabama	1.2	27	Rhode Island	0.7
2	Tennessee	1.2	28	Wisconsin	0.7
3	West Virginia	1.1	29	District of Columbia	0.7
4	Arkansas	1.1	30	Washington	0.7
5	Mississippi	1.1	31	Iowa	0.7
6	Louisiana	1.0	32	South Dakota	0.7
7	Oklahoma	1.0	33	New Mexico	0.7
8	Kentucky	1.0	34	Virginia	0.7
9	Michigan	1.0	35	New Hampshire	0.7
10	South Carolina	0.9	36	Maryland	0.7
11	Indiana	0.9	37	Wyoming	0.7
12	North Carolina	0.9	38	Connecticut	0.6
13	Kansas	0.9	39	Colorado	0.6
14	Missouri	0.9	40	Florida	0.6
15	Ohio	0.9	41	Illinois	0.6
16	Nevada	0.8	42	Vermont	0.6
17	Delaware	0.8	43	North Dakota	0.6
18	Pennsylvania	0.8	44	Massachusetts	0.6
19	Oregon	0.8	45	Texas	0.6
20	Georgia	0.8	46	Alaska	0.6
21	Idaho	0.8	47	New Jersey	0.5
22	Maine	0.7	48	Minnesota	0.5
23	Utah	0.7	49	New York	0.5
24	Nebraska	0.7	50	California	0.5
25	Arizona	0.7	51	Hawaii	0.5
26	Montana	0.7	52	Puerto Rico	N/A

All states = 0.7 annual prescriptions per capita

2015 USA total Opioid prescriptions = 227,780,915; TN total = 7,800,947
 2014 USA total Opioid prescriptions = 244,457,347; TN total = 8,239,048

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Six Key Indicators



**1. Mandatory
Prescriber
Education**



**2. Opioid
Prescribing
Guidelines**



**3. Eliminating
Pill Mills**



**4. Prescription
Drug Monitoring
Programs (PDMPs)**



**5. Increased
Access to
Naloxone**



**6. Availability of
Opioid Use
Disorder (OUD)
Treatment**

Controlled Substance Monitoring Database (CSMD)

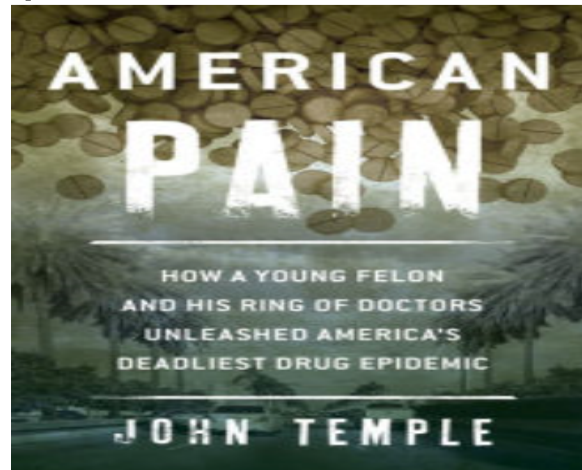
- Only 1 state holdout- Missouri
- Use of the system by prescribers to identify patients potentially at risk for or engaged in prescription drug misuse or at risk for medication interaction
- 26 States share across state lines
- 7 States have mandatory query
- Tennessee- more than 7 days of controlled substances and every 6 months thereafter

CDC Guidelines

- Doctors should talk to patients about their treatment goals and when they will stop using the drugs.
- Patients with acute pain, such as that caused by an injury, usually need prescription opioids for only three days. Prescribing the drugs for more than seven days is rarely necessary.
- Discuss information from the Prescription Drug Monitoring database and confirm that the patient is aware of their prescriptions.
- Discuss safety concerns, including risk of respiratory depression and overdose.
- Avoid prescribing opioids and benzodiazepines at the same time.

CDC Guidelines

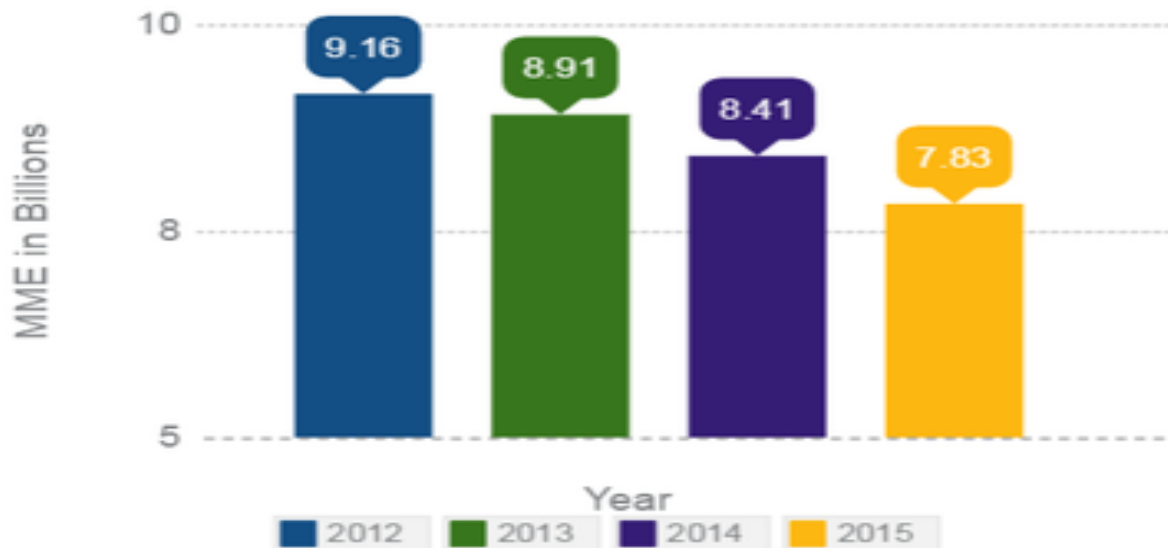
- If patients are receiving high daily dosages of opioids, discuss safety concerns with the patient, and consider tapering to a safer dosage.
- Discuss safety concerns with other clinicians who are prescribing controlled substances for the patient.
- Consider the possibility of substance use disorder and discuss concerns with patients.
- If patients abuse opioids, doctors should help them get into treatment.



Tennessee Morphine Equivalents

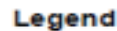
Morphine Milligram Equivalents dispensed in Tennessee - 2012-2015

The state monitors the morphine milligram equivalent, or MME, a unit that compares the strength of opioids into the potency of morphine.



Source: Tennessee Department of Health

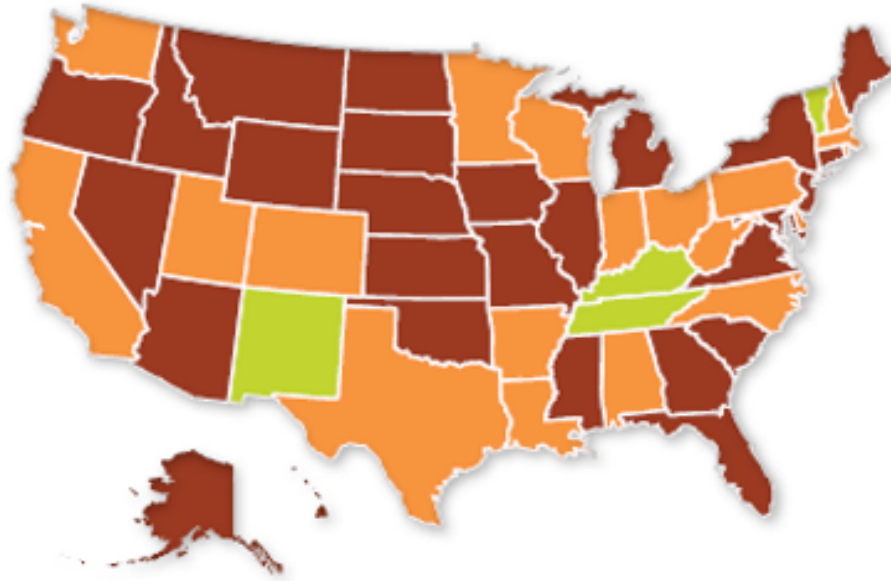
Number of Pain Management Clinics as of 10.26.2016



0 - 1
 2 - 4
 5 - 8
 9 - 13
 14 - 23

Tennessee Leading the Way

A ROADMAP FOR STRENGTHENING LAWS & REGULATIONS



47
STATES

**NEED TO
IMPROVE!**

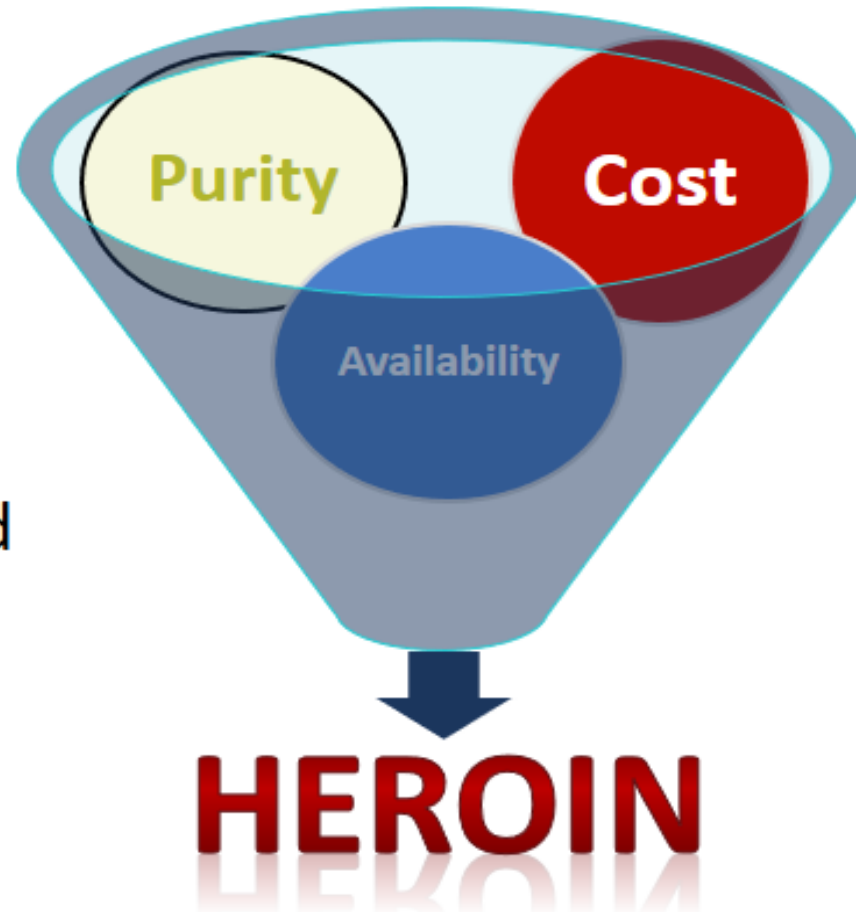
28
STATES

are **"FAILING"**

4
STATES

are **"MAKING
PROGRESS"**

Drivers of Heroin Use



75-85% have used
prescription drugs

Black Tar Heroin



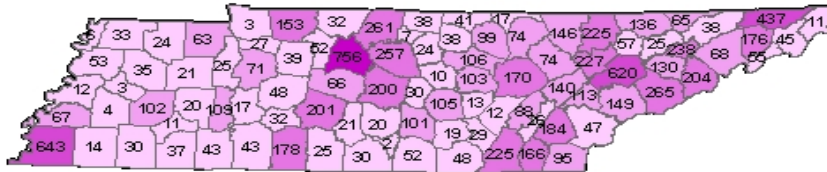
Prescription Drug Incidents



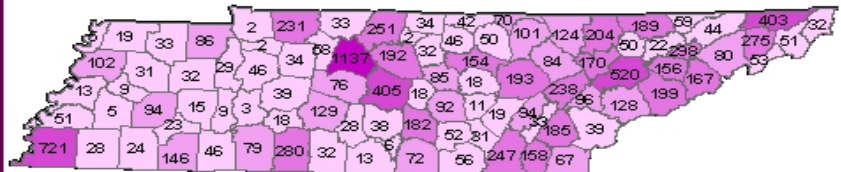
Tennessee Drug Trends - Prescription Drugs



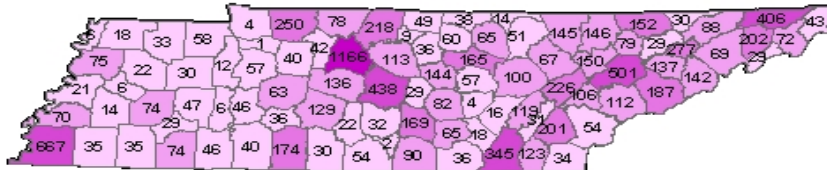
2011 - 9,500 Prescription Drug Incidents



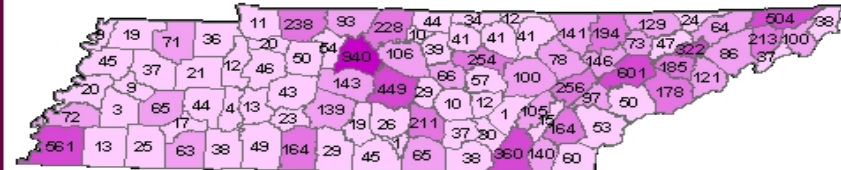
2012 - 10,478 Prescription Drug Incidents



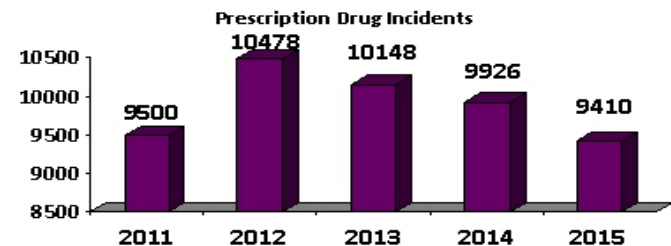
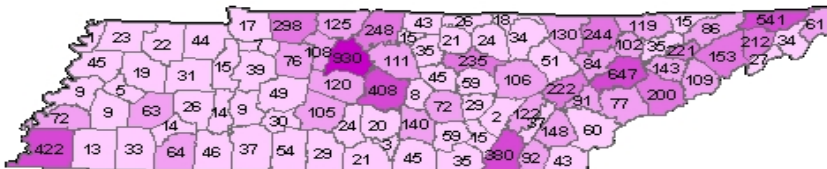
2013 - 10,148 Prescription Drug Incidents



2014 - 9,926 Prescription Drug Incidents



2015 - 9,410 Prescription Drug Incidents



Data Source - Tennessee Incident Based Reporting System (TIBRS)

Dangerous Drugs Task Force



Tennessee Drug Trends - Heroin



2011 - 207 Heroin Incidents



2012 - 415 Heroin Incidents



2013 - 569 Heroin Incidents



2014 - 822 Heroin Incidents



2015 - 1,244 Heroin Incidents



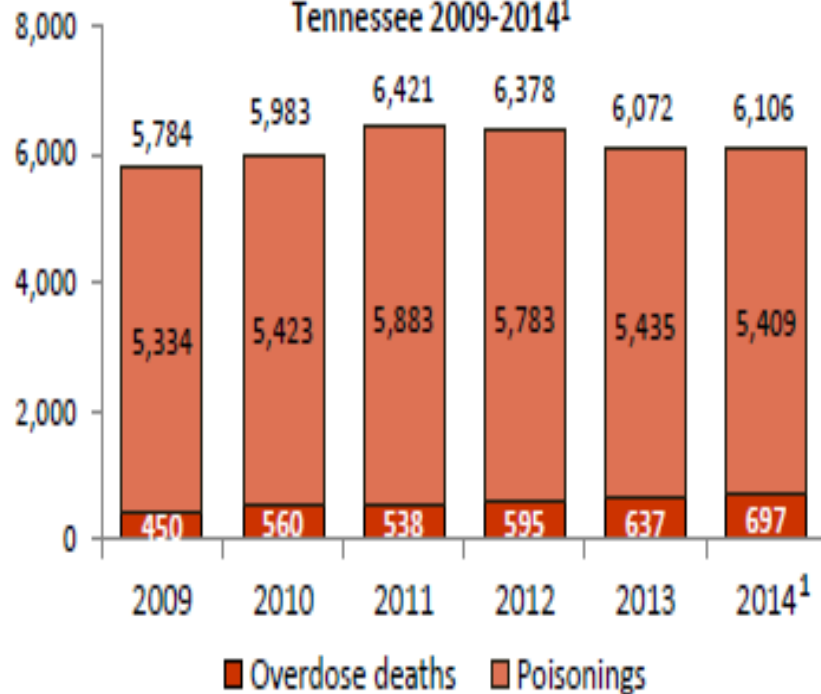
Data Source - Tennessee Incident Based Reporting System (TIBRS)

Heroin Overdose Deaths and Poisoning

Prescription opioid poisonings⁷ decreased since 2012 while overdose deaths³ increased since 2009.

Figure 3. Prescription opioid poisonings³ and overdose deaths⁷:

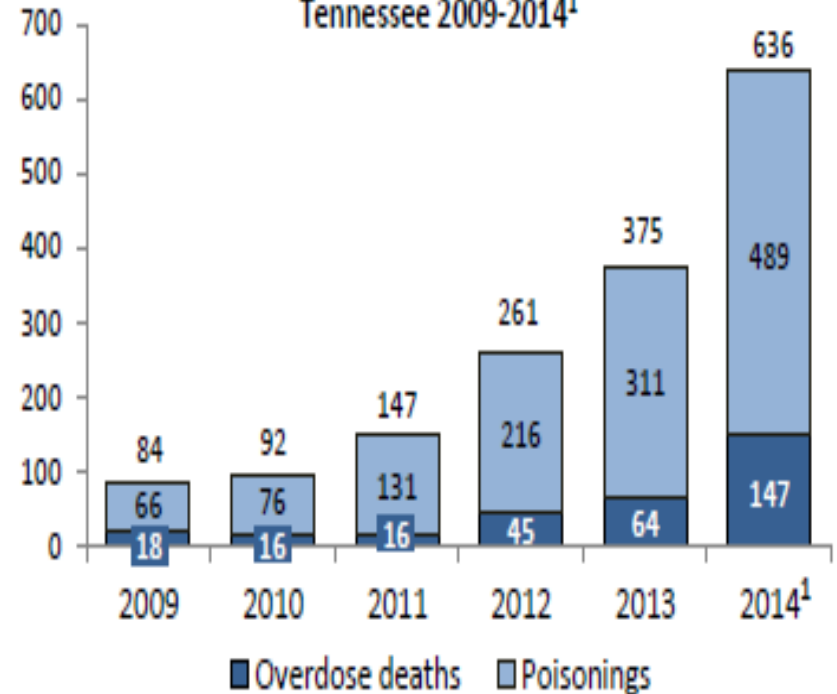
Tennessee 2009-2014¹



Heroin overdose deaths and poisoning increased dramatically since 2009.

Figure 4. Heroin poisonings⁴ and overdose deaths⁶:

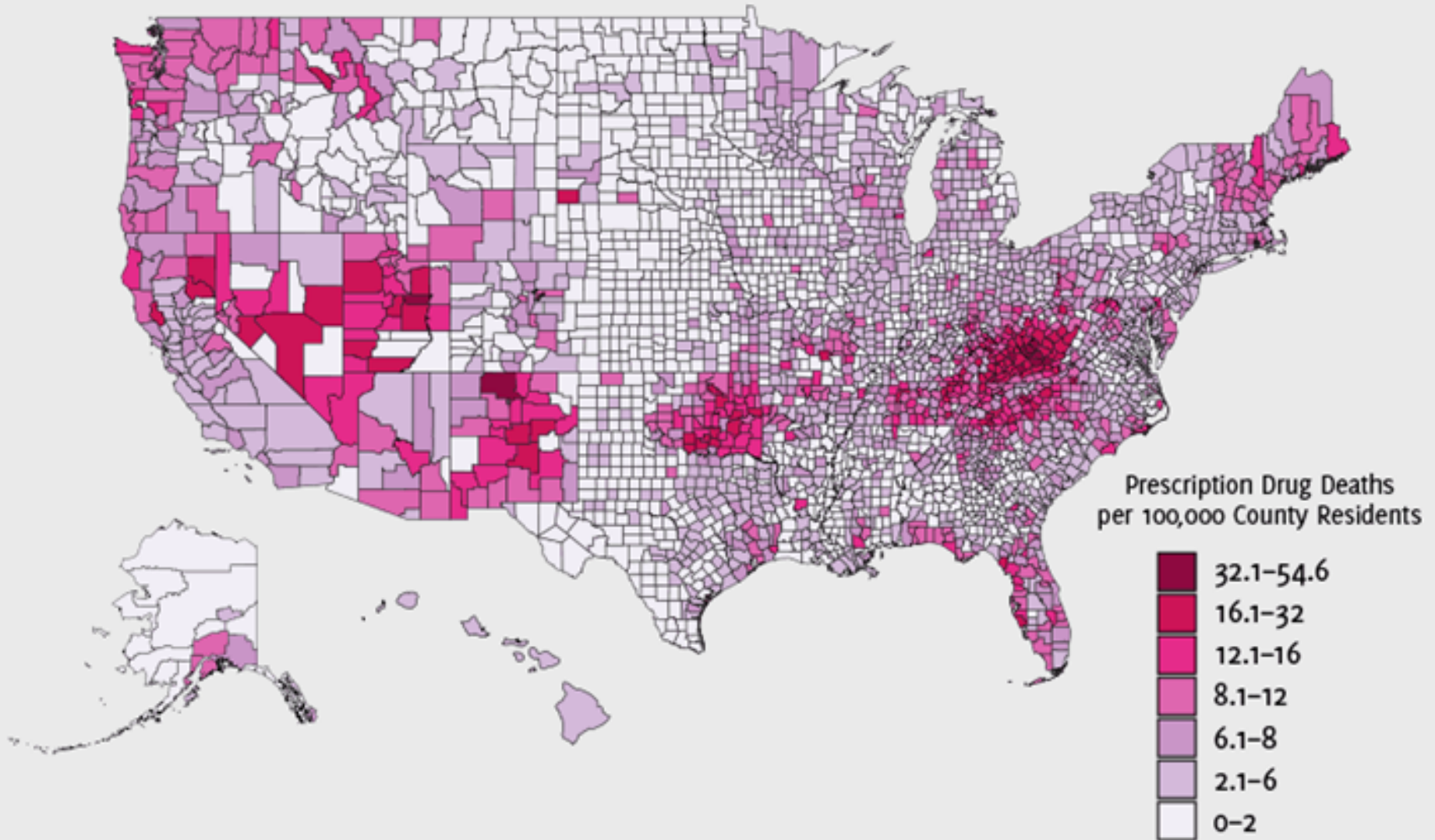
Tennessee 2009-2014¹



Sources: Tennessee Department of Health, Division of Policy, Planning and Assessment, Nashville, TN; (1) Death Statistical System, 2014; (2) Hospital

Drug Deaths by County

16 Years of Prescription Drug Deaths, By County



Top 30 Counties Drug Related Deaths

Rank	County	Rate
1	Wyoming County, WV	54.6
2	McDowell County, WV	51.9
3	Boone County, WV	43.1
4	Mingo County, WV	37.8
5	Bell County, KY	37.3
6	Dickenson County, VA	37.3
7	Logan County, WV	36.2
8	Floyd County, KY	35.8
9	Carbon County, UT	35.7
10	Mercer County, WV	35.4

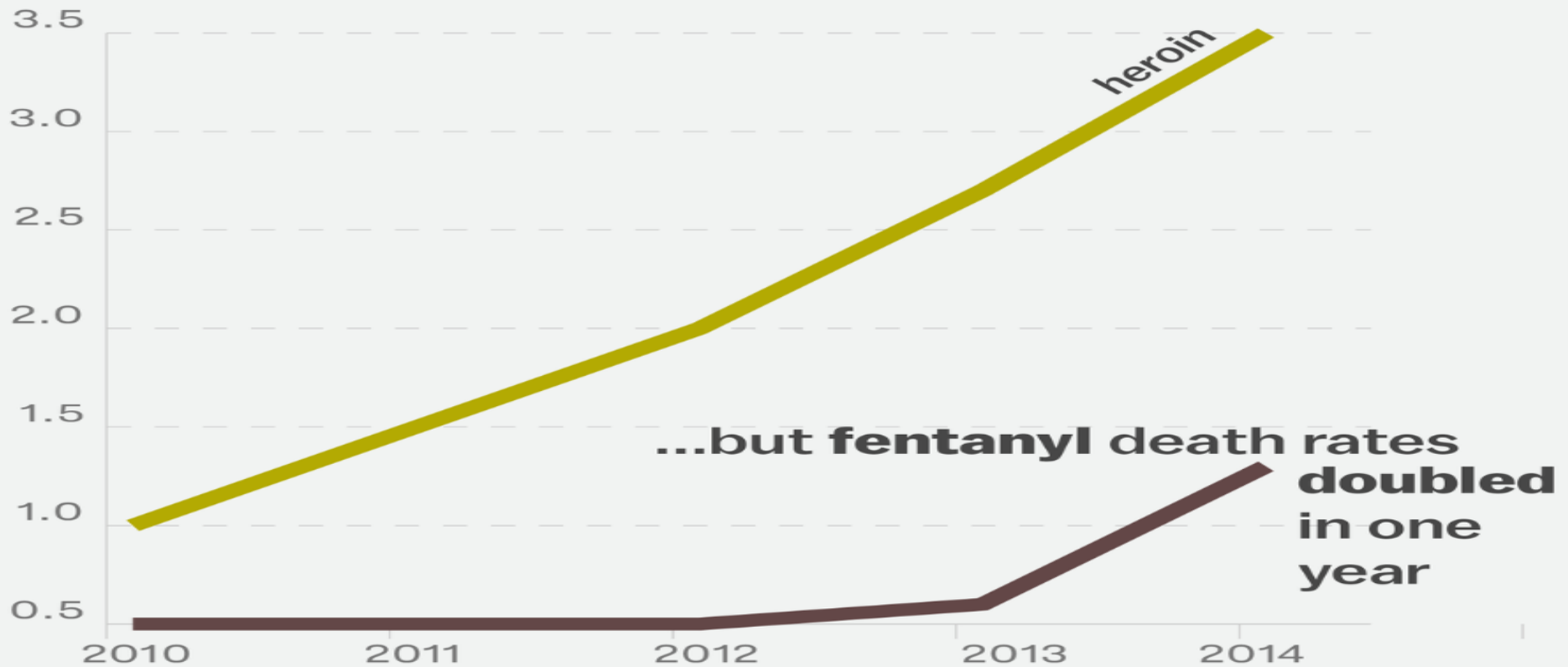
Rank	County	Rate
11	Powell County, KY	35.2
12	Rio Arriba County, NM	33.9
13	Russell County, VA	30.7
14	Raleigh County, WV	30.3
15	Cherokee County, NC	28.6
16	Summers County, WV	28.3
17	Johnson County, KY	28.2
18	Tazewell County, VA	27.9
19	Leslie County, KY	27.3
20	Buchanan County, VA	26.7

Rank	County	Rate
21	Martin County, KY	26.4
22	Jackson County, TN	26.4
23	Russell County, KY	26.3
24	Wise County, VA	26.2
25	Clay County, KY	25.9
26	Clay County, TN	25.8
27	Lincoln County, WV	25.3
28	Webster County, WV	25.1
29	Harlan County, KY	25
30	Clinton County, KY	24.4

The Plague is Coming

Heroin is the leading opioid in drug overdose deaths in the US...

Age-adjusted death rates for every 100,000 people



Source: National Center for Health Statistics

Vox

Percocet (or Fentanyl??)



Xanax (or fentanyl??)



Can You Tell the Difference?



Mobile Pharmaceutical Plant



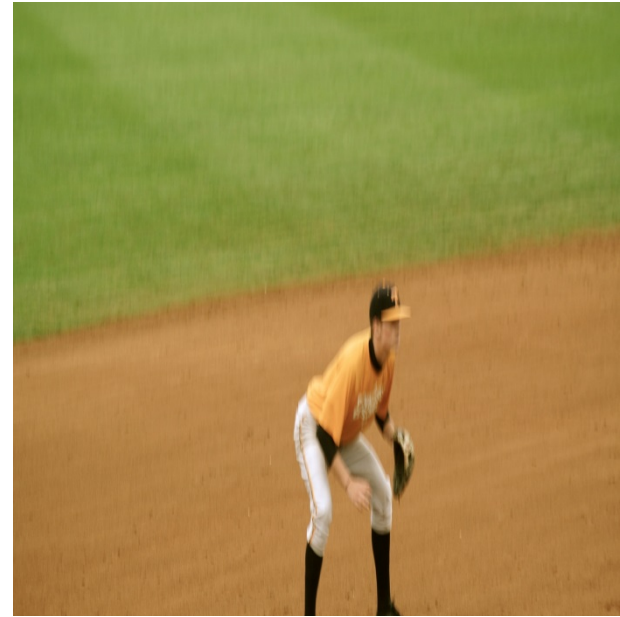
Love One Another

- ***New Testament***- Jesus Christ, "***love your neighbor.***"
- ***Quran***- Prophet Mohammed, "***you will not enter paradise until you have faith; and you will not complete your faith till you love one another.***"
- ***Udanavarga*** (Buddhism)- "***hurt not others that which pains yourself.***"
- ***Old Testament*** (Judaism)- "***thou shalt love thy neighbor as yourself.***"
- ***Hitopadesa*** (Hinduism)- "***one should always treat others as they themselves wish to be treated.***"

My Girls



My Boy



The King RIP age 42



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