



Department of

Mental Health &

Substance Abuse Services

Tennessee: A State in Crisis

Wesley Geminn, PharmD, BCPP



Epidemiology

Overdose Deaths in 2016

Pop Quiz: Which venue accurately reflects the number of nationwide overdose deaths in 2016?



Grand Ole Opry



Bridgestone Arena



Nissan Stadium

Overdose Deaths in 2016

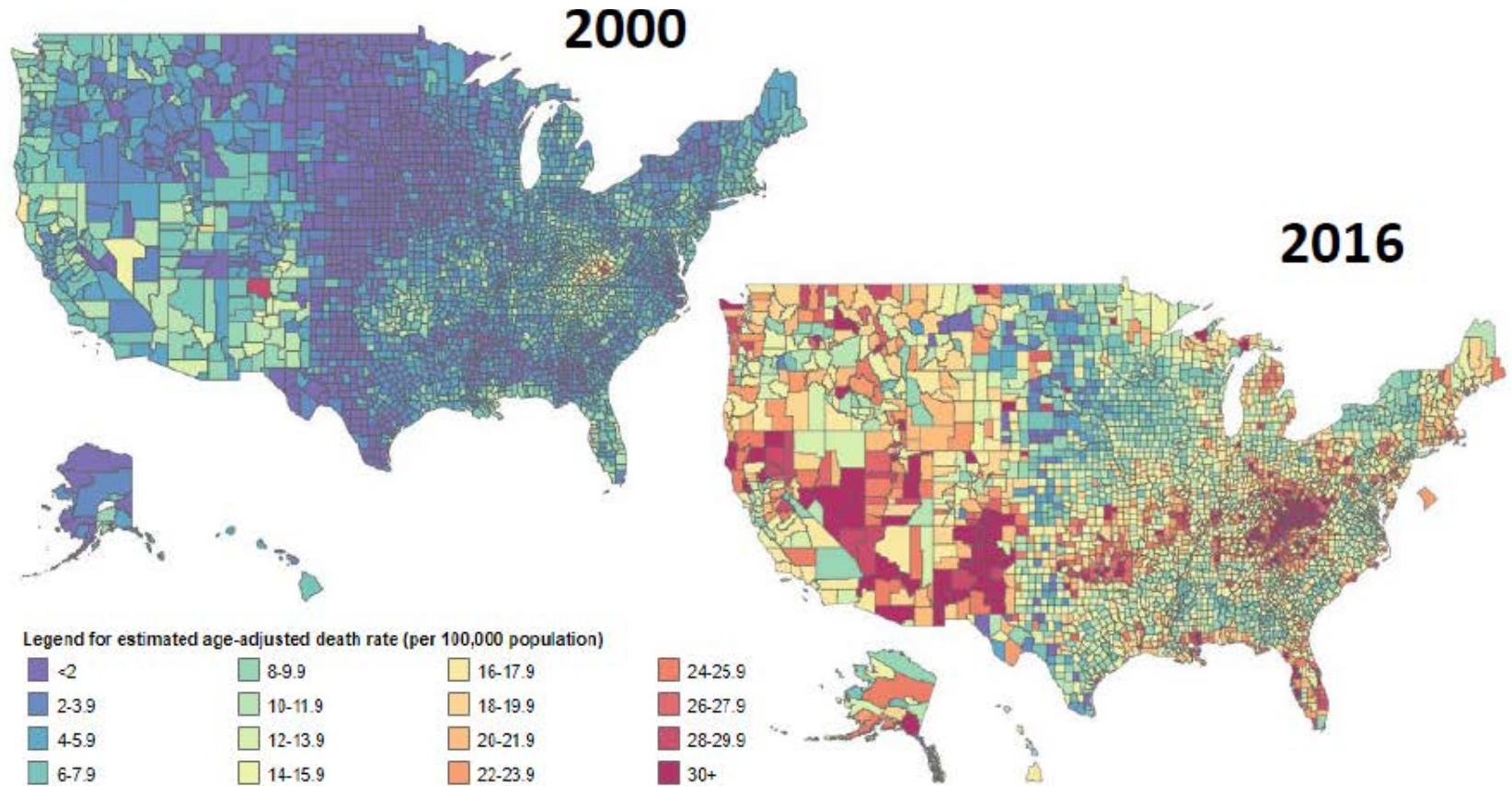
64,000

Or

175 per day

7 per hour

Change in Trends



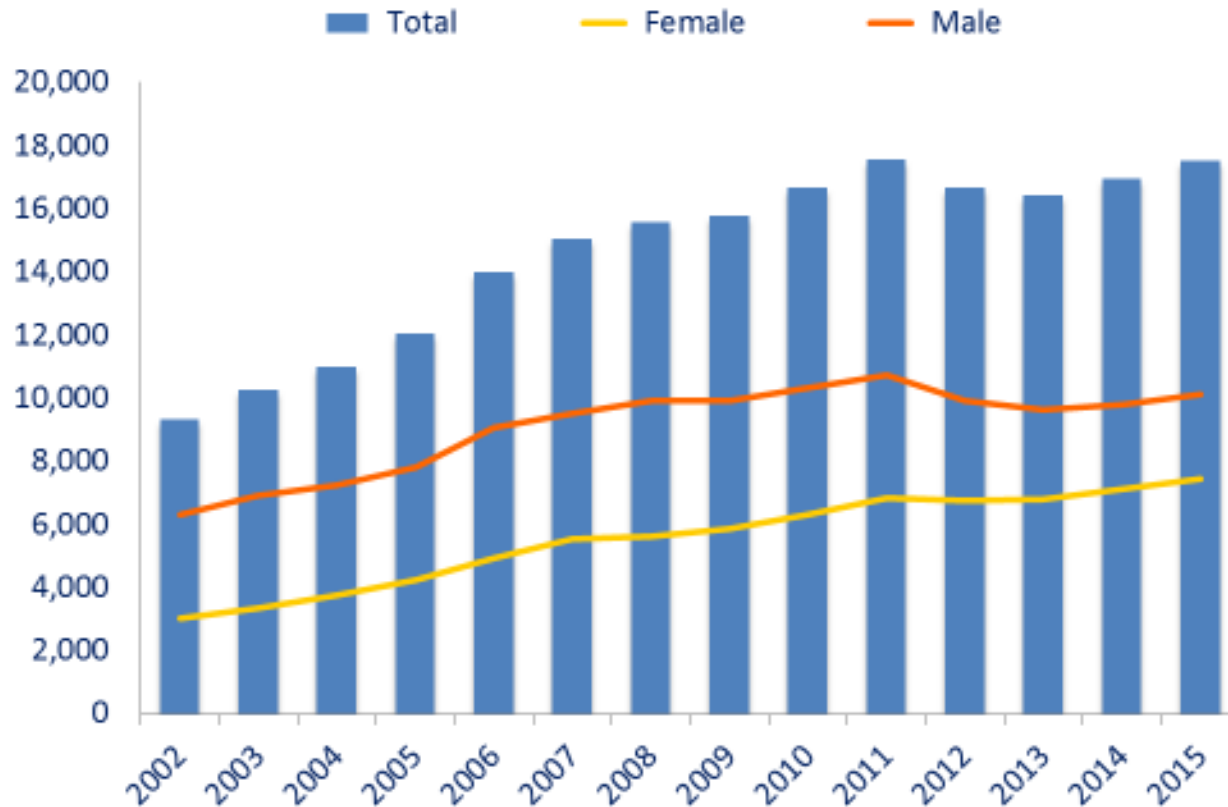
Source: <https://www.cdc.gov/nchs/data-visualization/drug-poisoning-mortality/>

National Opioid Overdose Statistics



National Overdose Deaths

Number of Deaths from Prescription Opioid Pain Relievers
(excluding non-methadone synthetics)

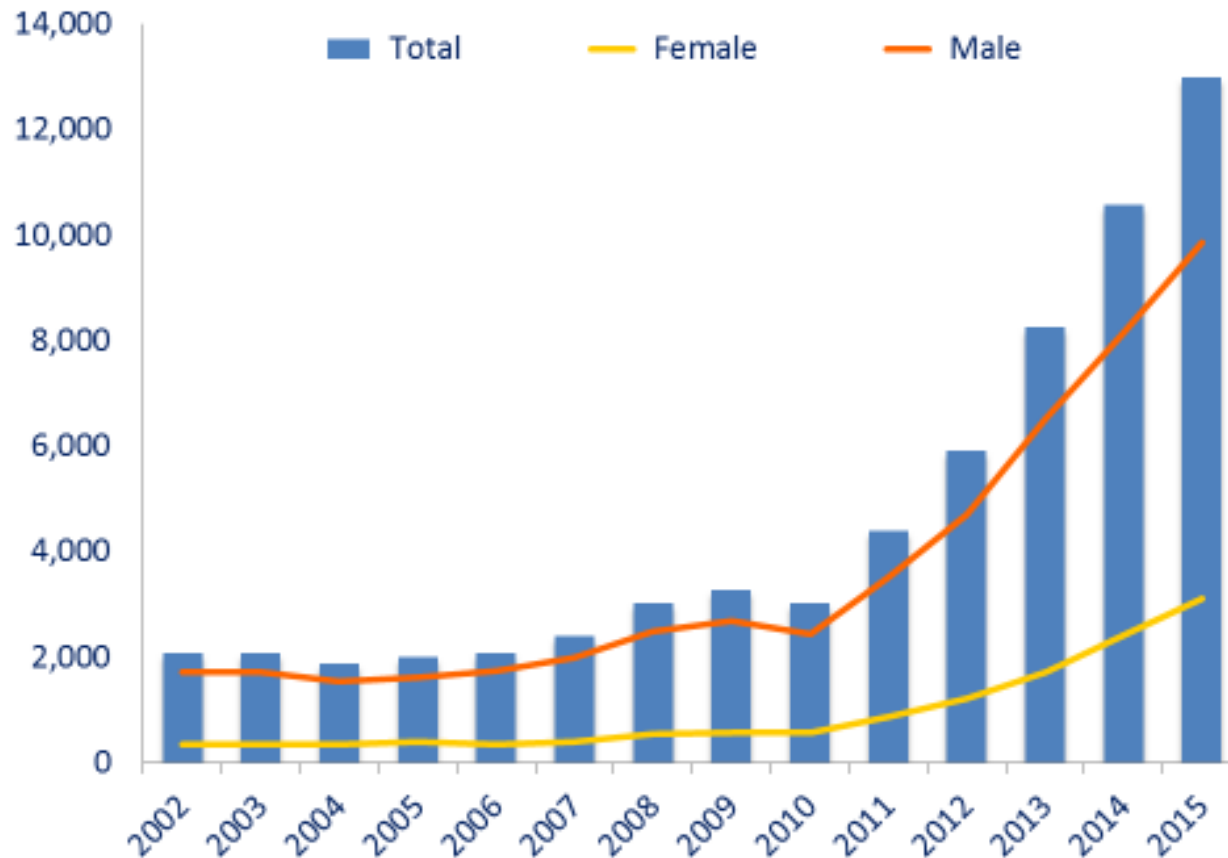


Source: National Center for Health Statistics, CDC Wonder

National Opioid Overdose Statistics



National Overdose Deaths Number of Deaths from Heroin



Source: National Center for Health Statistics, CDC Wonder

What is this for?



Pop Quiz – What Drug is This?



Fentanyl

Pop Quiz – What Drug is This?



Fentanyl

Pop Quiz – What Drug is This?



Fentanyl and Alprazolam

Lethal Doses



Lethal Dose of Carfentanil



Fentanyl Bust



(Courtesy: 24th Judicial District Drug Task Force)

Mobile Pharmaceutical Plant



Mobile Pharmaceutical Plant



TBI has seized **12** pill presses in TN in 2017

Fentanyl Public Health Advisory



PUBLIC HEALTH & SAFETY ADVISORY ON FENTANYL

ADVISORY CONCERNING FENTANYL AND FENTANYL-LACED SUBSTANCES

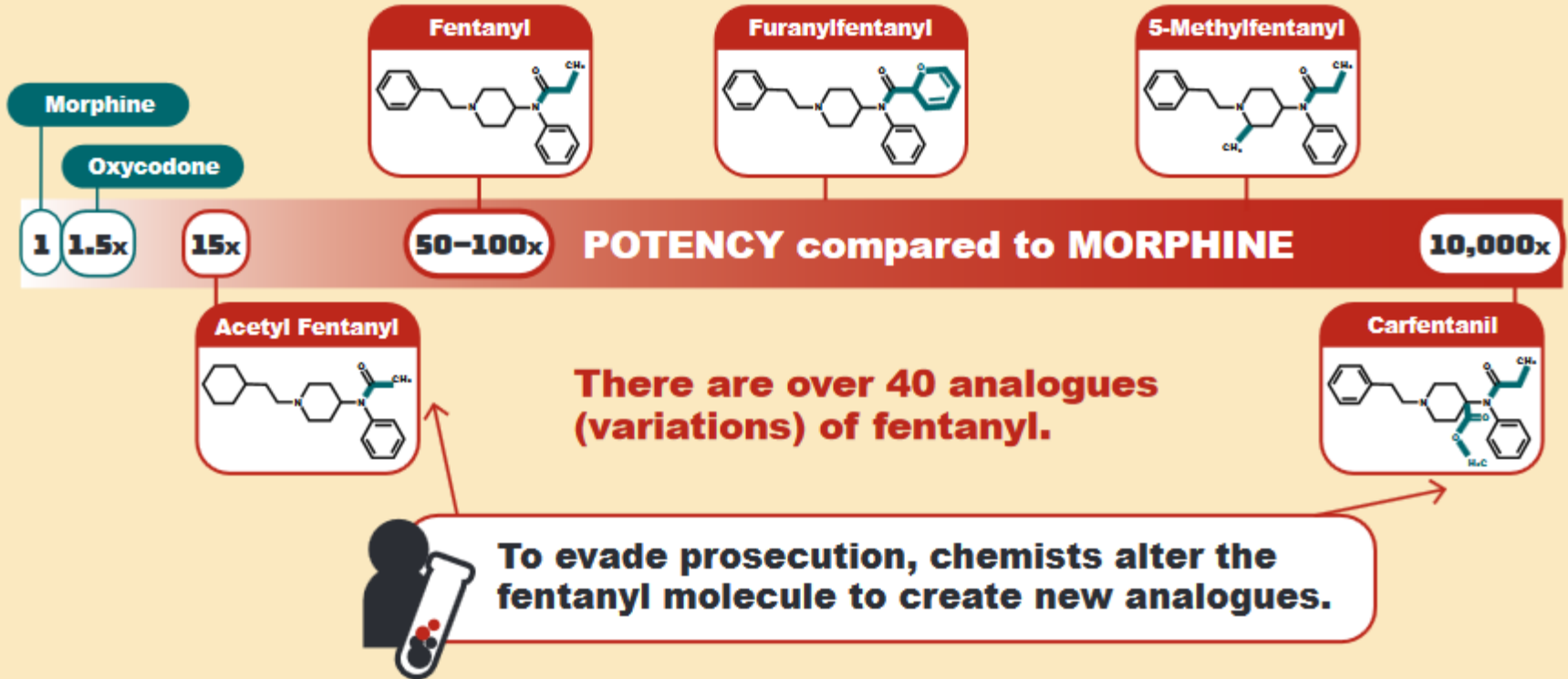
The Tennessee Department of Health, Tennessee Department of Mental Health and Substance Abuse Services, Tennessee Department of Safety & Homeland Security and the Tennessee Bureau of Investigation urge Tennesseans to have heightened awareness about misuse of fentanyl and the risks for overdose deaths associated with improper use, including the substantial risk posed by counterfeit prescription or other illegal drugs that may contain fentanyl or similar powerful compounds.

<http://tn.gov/health/article/health-advisories>

Fentanyl Analogues

What are fentanyl and fentanyl analogues?

Fentanyl is a synthetic opioid that is 50–100 times more potent than morphine. Doctors prescribe fentanyl in medical settings, but drug traffickers manufacture black market fentanyl and sell it illegally.

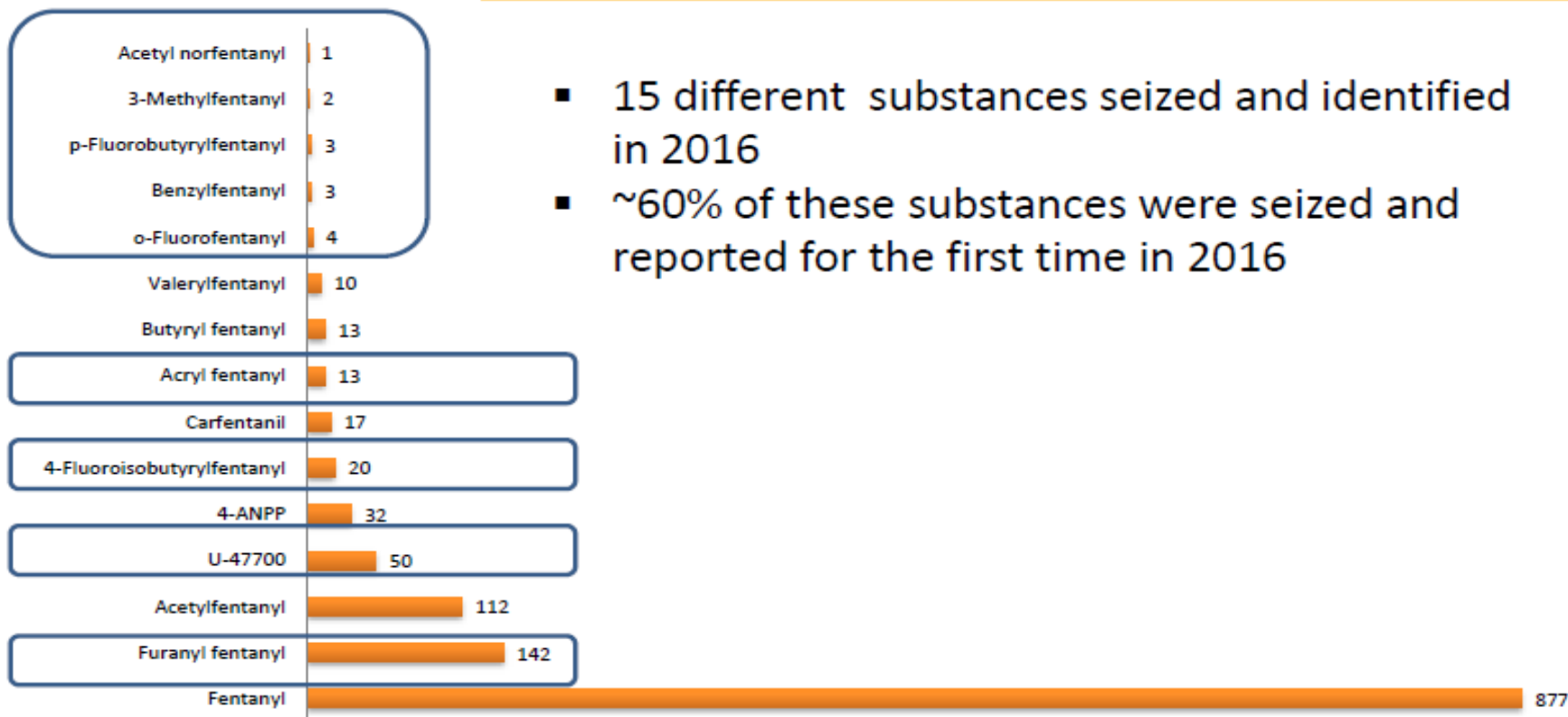


Fentanyl Analogues

DRUG ENFORCEMENT ADMINISTRATION
SPECIAL TESTING AND RESEARCH LABORATORY
EMERGING TRENDS PROGRAM



Opioid & “Fentanyl-like” Identifications



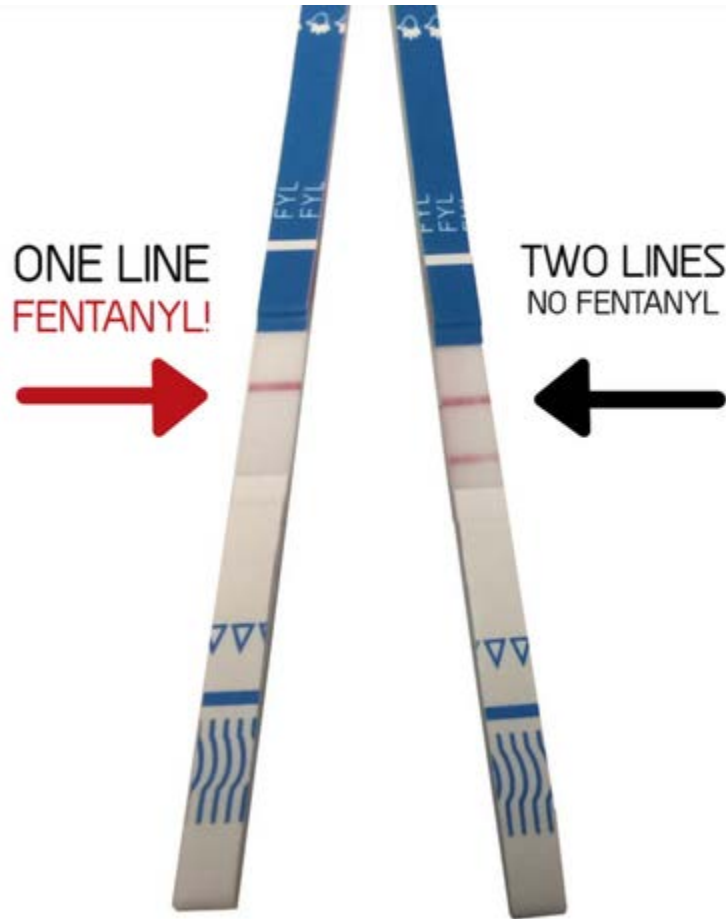
- 15 different substances seized and identified in 2016
- ~60% of these substances were seized and reported for the first time in 2016

Notes:

- 1) This data was compiled from analytical results from the DEA laboratory system. It encompasses exhibits seized 01/01/2016 through 12/31/2016 that were analyzed by 12/31/2016. The data was retrieved on 01/04/2017.

New and Upcoming?

- Fentanyl Test Strips, \$1 each



HEALTH CONSEQUENCES

- **Infection** — Contaminated drugs and inadequately sterile technique with injection drug use leads to localized and systemic infections (eg, cellulitis, localized abscess at the injection site, endocarditis, osteomyelitis)
 - Injection drug use with shared needles or syringes is associated with an increased risk of infection with a bloodborne pathogen, such as HIV, hepatitis B, and hepatitis C. Substance abusers are also at increased risk for systemic bacterial infections, such as pneumonia and tuberculosis.
- **Pain** — Chronic use of opioid agonists can result in hyperalgesia.

HEALTH CONSEQUENCES

- **Narcotic bowel syndrome** — Narcotic bowel syndrome is characterized by an increase in abdominal pain associated with continued or escalating dosages of opioids.
- **Overdose and mortality** — Opioid addiction is associated with increased mortality compared with the general population, principally due to higher rates of overdose and trauma.

HEALTH CONSEQUENCES

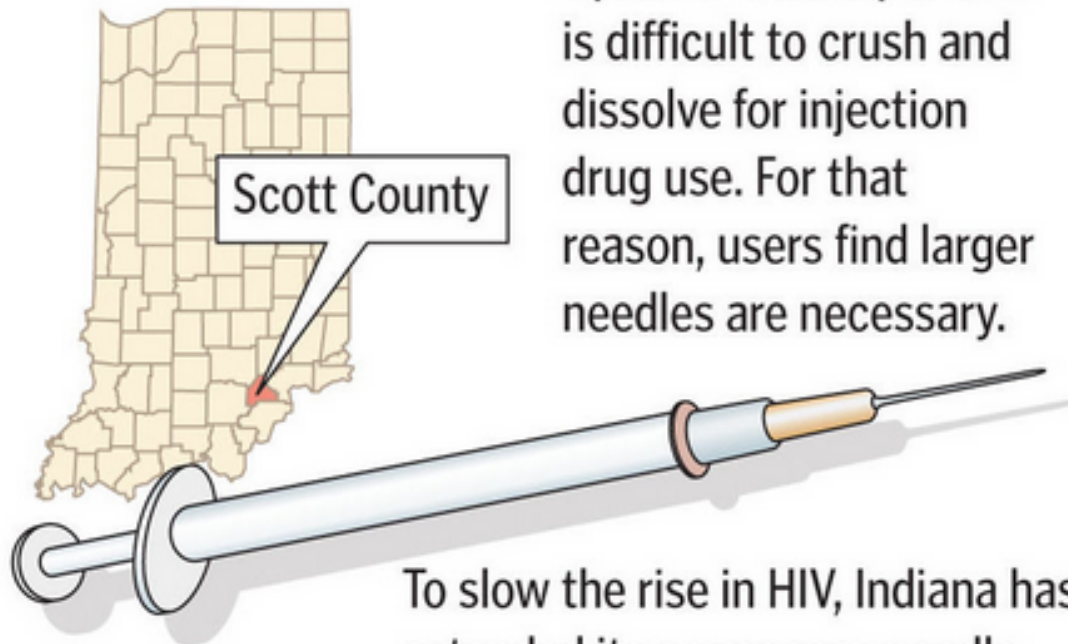
142 cases of HIV linked to illegal drugs

Many cases in Scott County are traced to people injecting Opana, a prescription painkiller similar to heroin and sold in pill form.



Oxymorphone

An opioid painkiller sold under names Opana and Numorphan



Opana is a hard pill that is difficult to crush and dissolve for injection drug use. For that reason, users find larger needles are necessary.

To slow the rise in HIV, Indiana has extended its emergency needle exchange program in the area.

IV Drug Abuse



Not Just the Arm- Subclavian



Jugular



Abscess



Doctor?

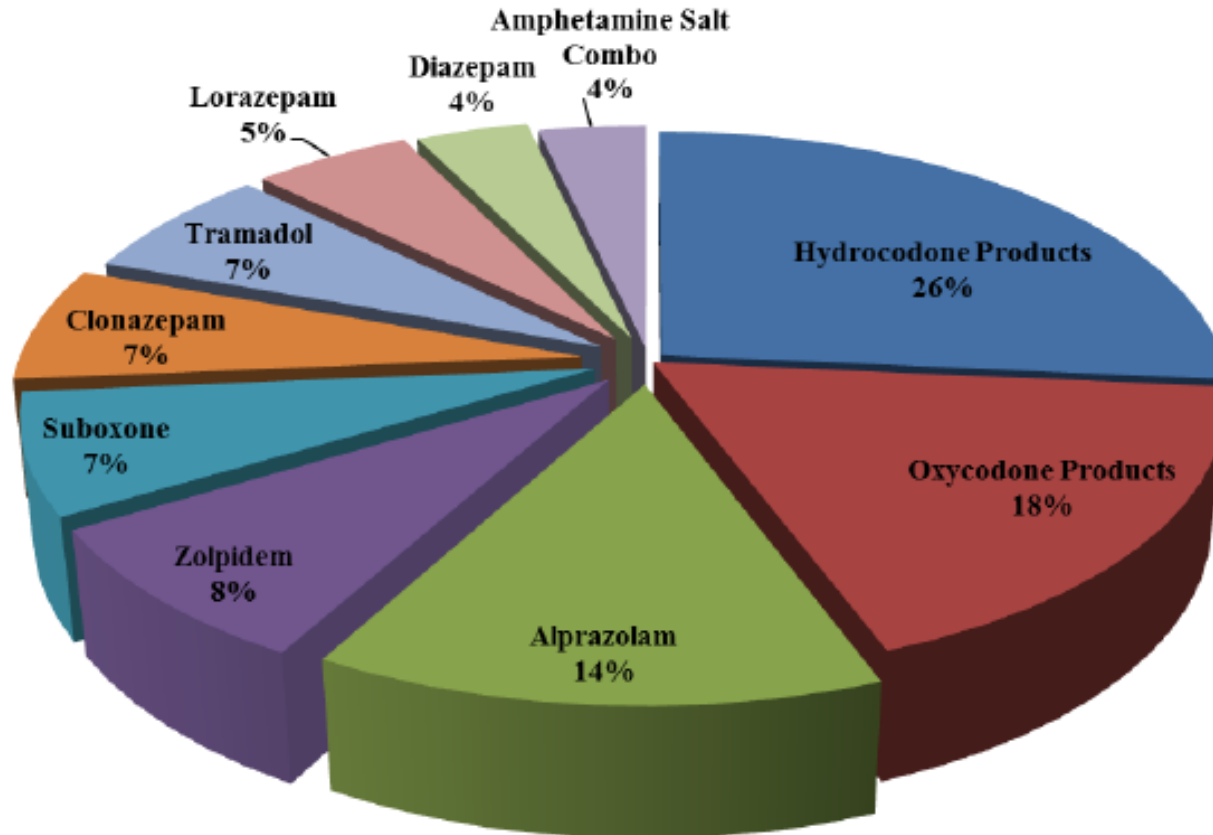


Underground Healthcare



Most Common Controlled Substances Dispensed

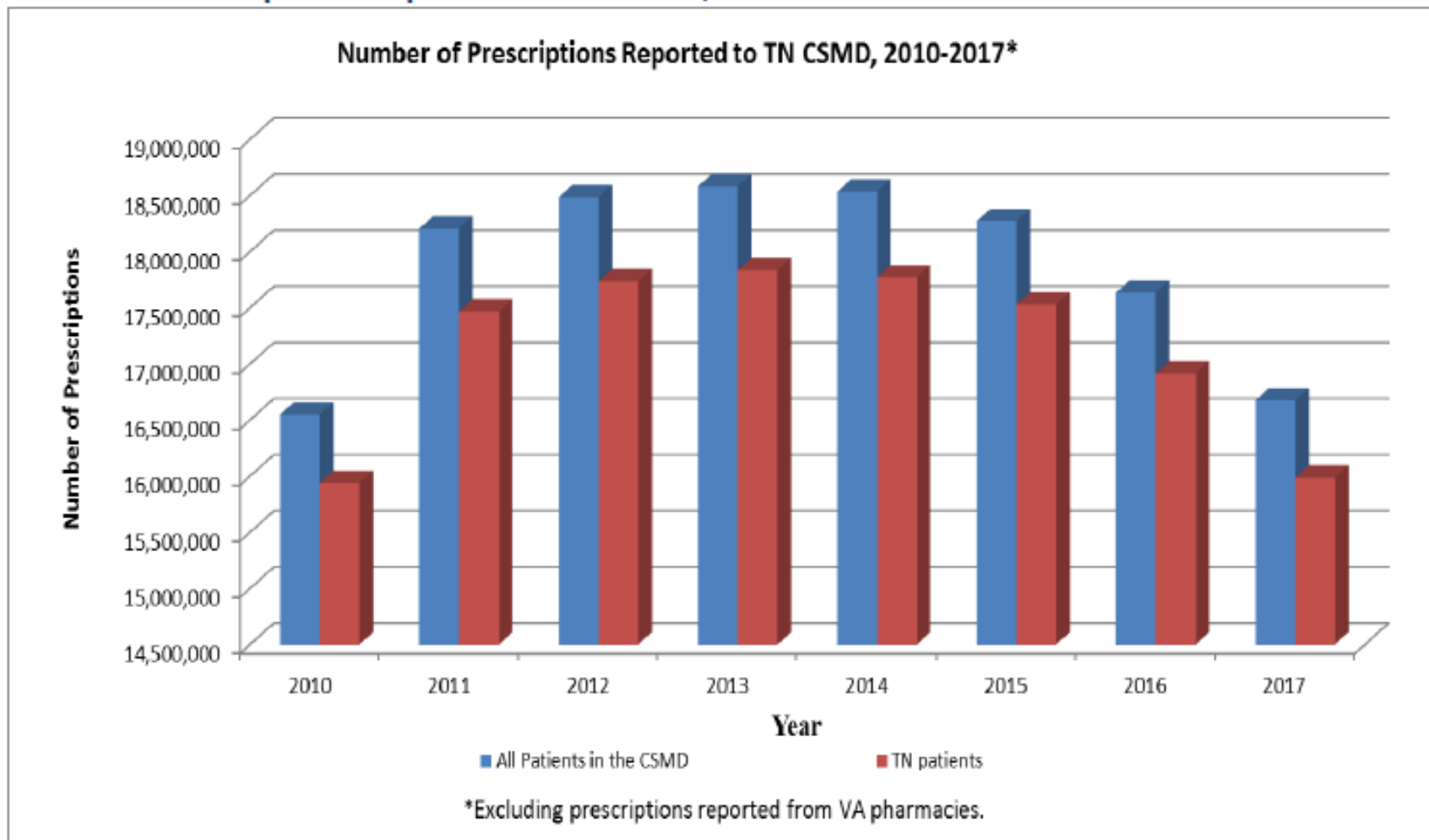
Distribution of the Top 10 Most Frequently Prescribed Controlled Substances Products in the CSMD for 2017*



* Including all dispensers who reported to the CSMD in 2017.

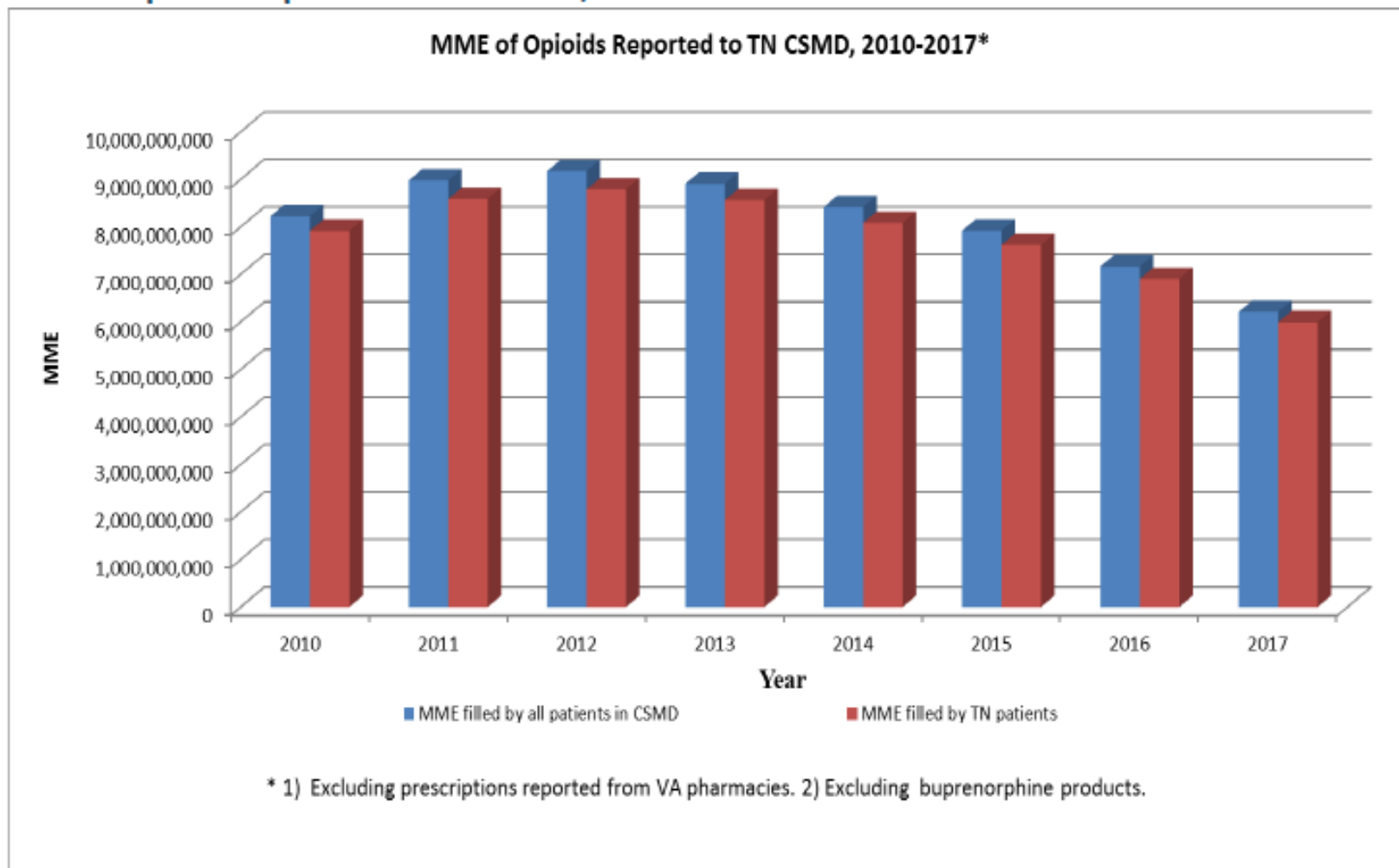
Number of Controlled Substances Dispensed

Number of Prescriptions Reported to TN CSMD, 2010-2017

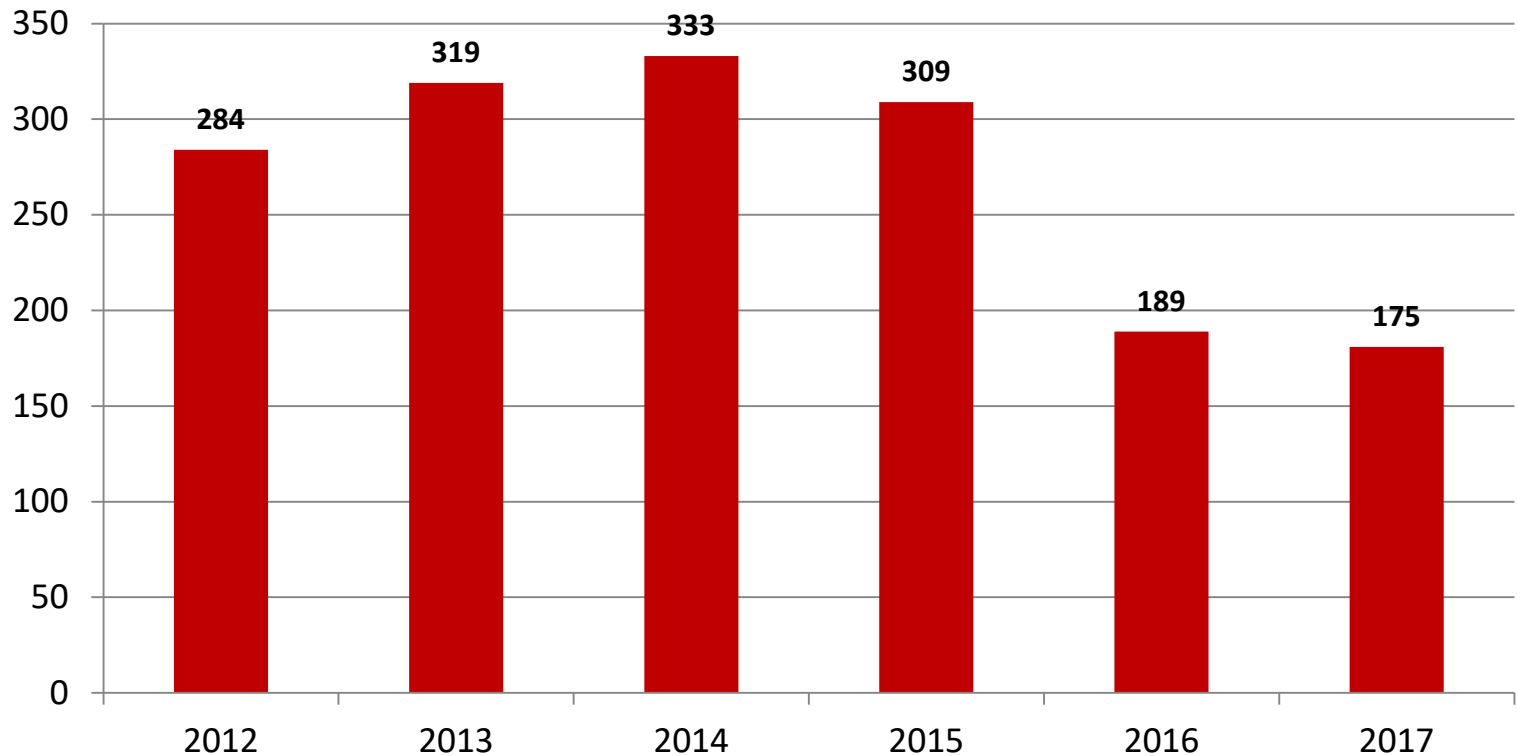


Number of Opioid MMEs Dispensed

MME of Opioids Reported to TN CSMD, 2010-2017

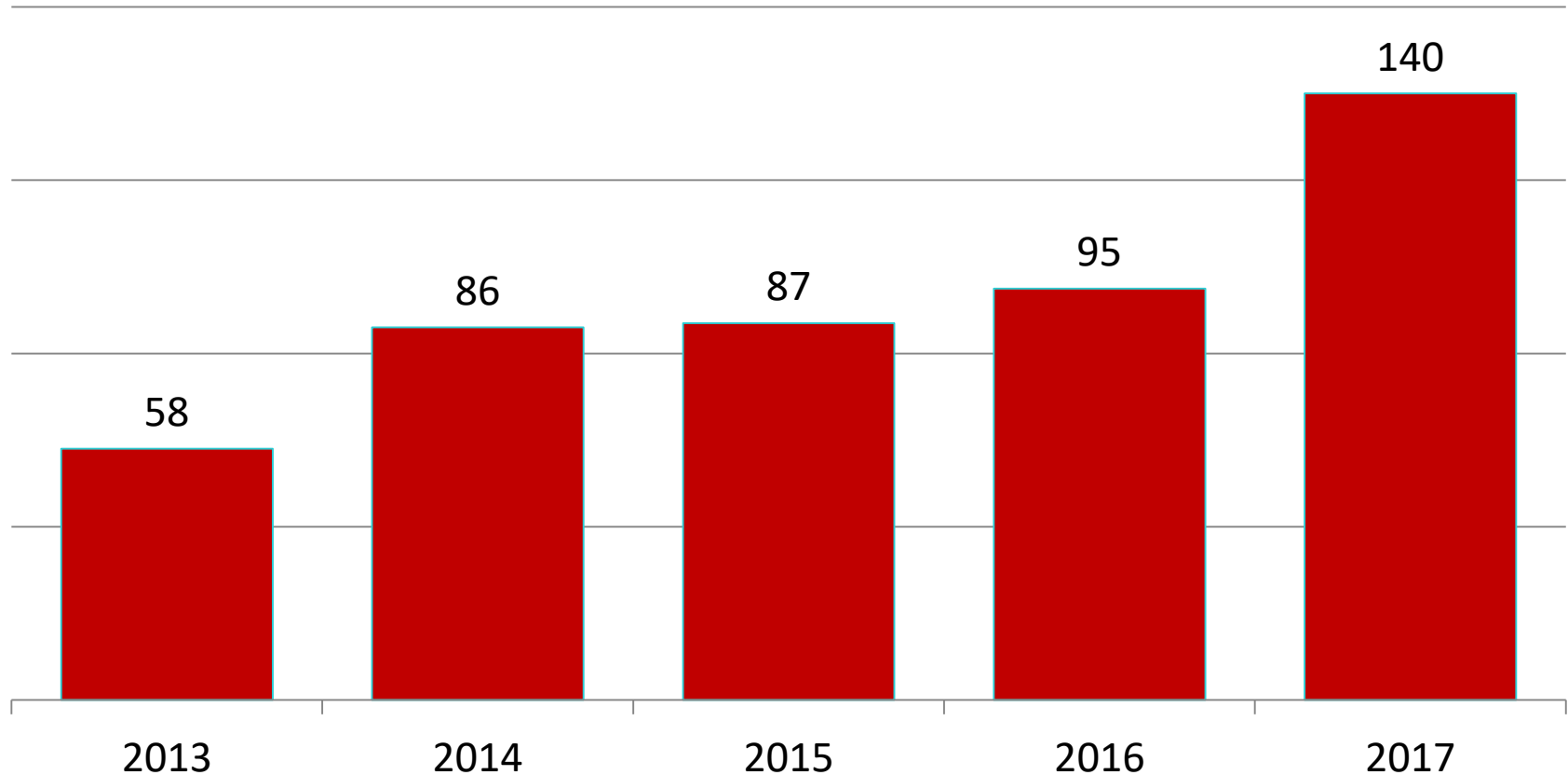


Pain Management Clinics – Number in TN



A “pain management clinic” is a privately owned clinic in which the majority of patients are prescribed or dispensed opioids, benzos, etc. for 90 days or more in a 12-month period for non-malignant pain.

Number of Board Actions* (Suspended, Surrendered or Revoked) For Prescribing and Diversion, 2013 – 2017



*Actions for diversion may have been undercounted in 2013-2015 because several categories were used for diversion. Implementation of LARS software allowed consistent categorization of these actions and increased reporting accuracy for 2016 and 2017.

“I admire addicts. In a world where everybody is waiting for some blind, random disaster or some sudden disease, the addict has the comfort of knowing what will most likely wait for him down the road. He's taken some control over his ultimate fate, and his addiction keeps the cause of his death from being a total surprise.”

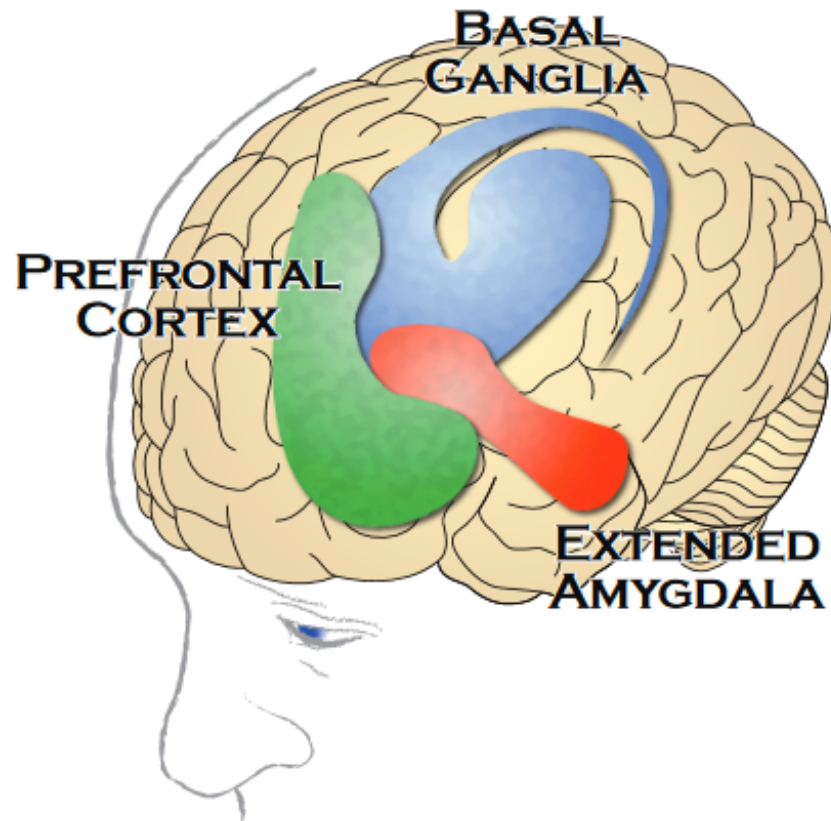
-Chuck Palahniuk, Choke

The logo consists of a red square with the letters 'TN' in white, serif font. Below the red square is a thin white horizontal line, and below that is a dark blue horizontal bar. A small 'TM' trademark symbol is located at the bottom right corner of the dark blue bar.

TN

Pathophysiology and Treatment of Opioid Use Disorder

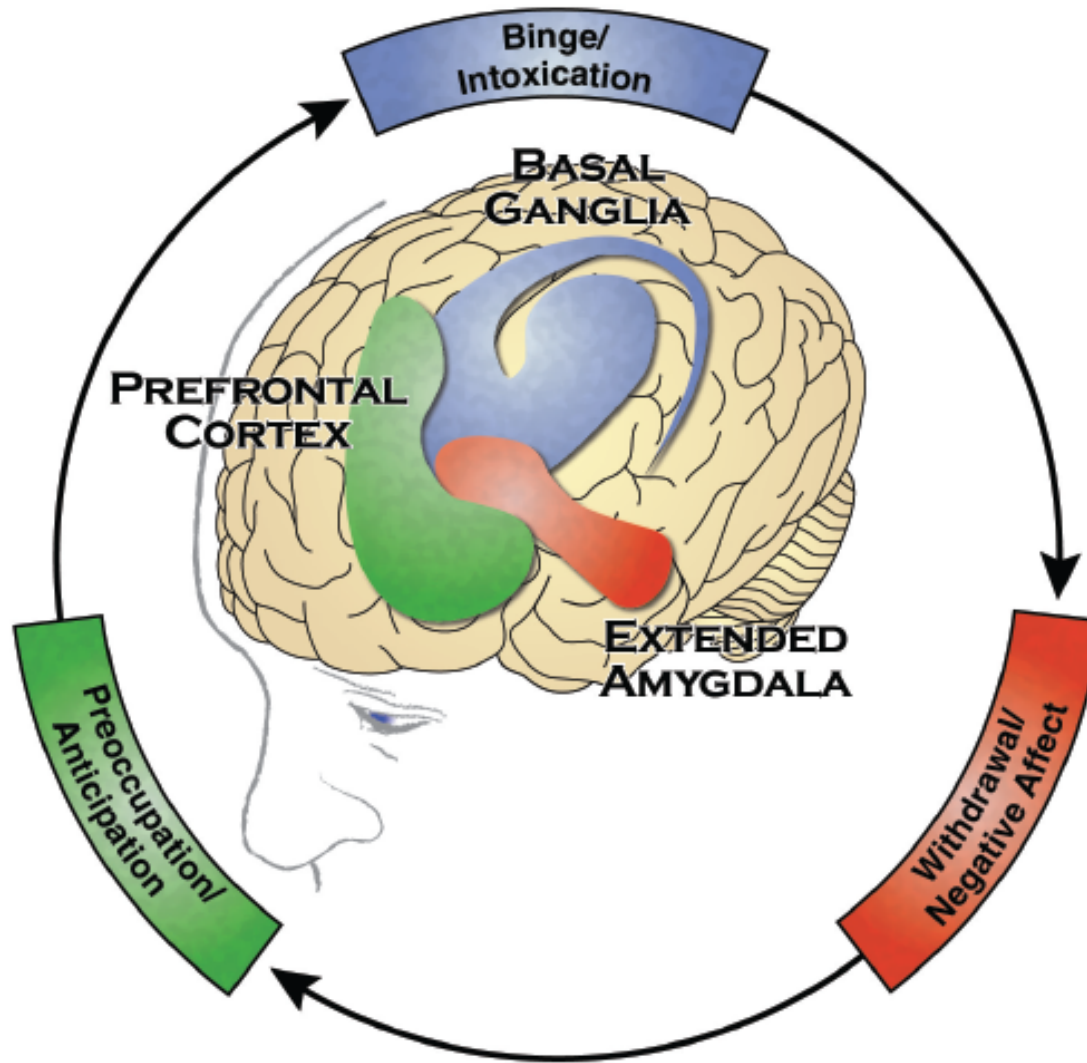
Pathophysiology – Cycle of Addiction



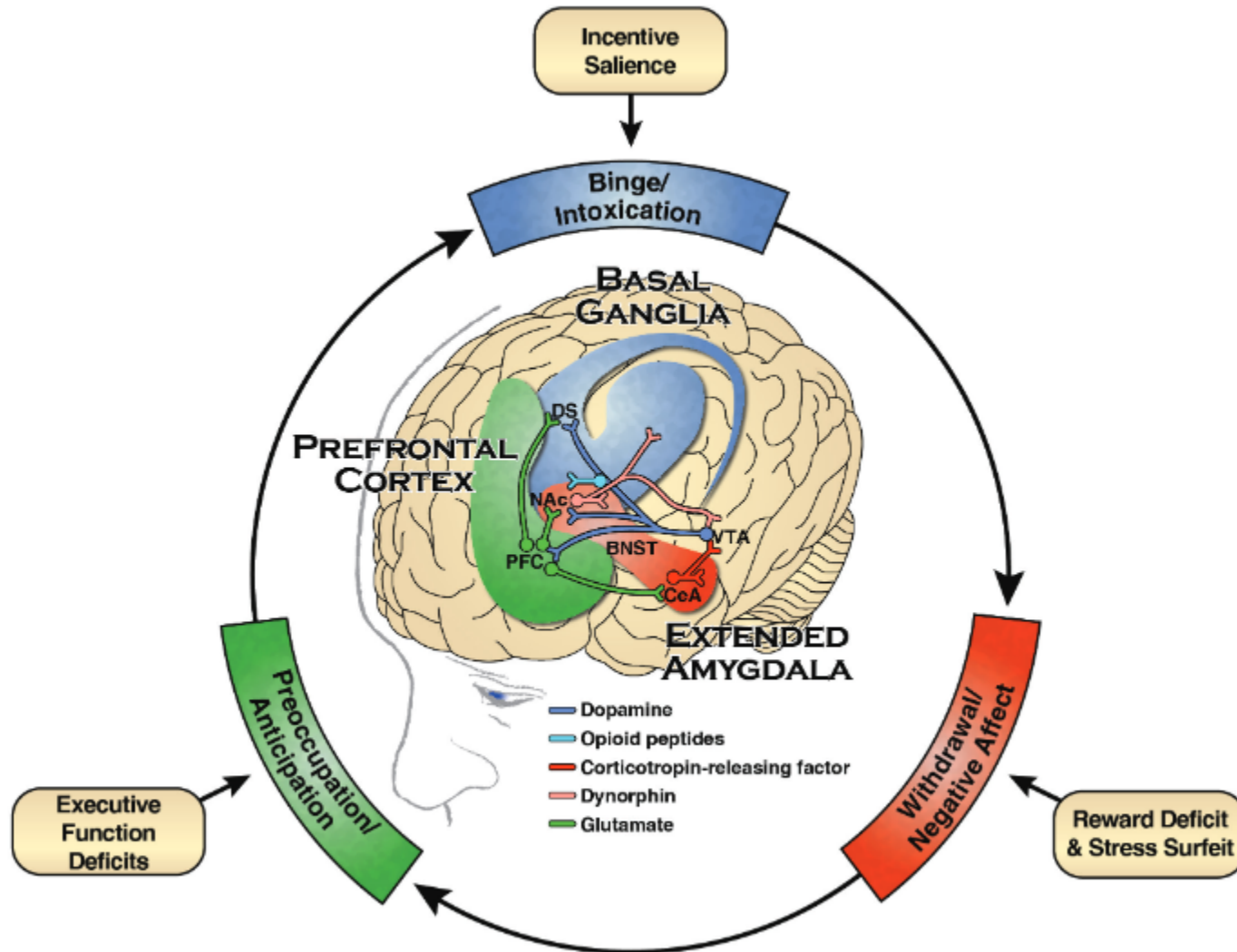
Pathophysiology – Cycle of Addiction

- **Basal Ganglia** - involved in coordination and learning routine behaviors and forming habits
 - Nucleus Accumbens - involved in motivation and the experience of reward
 - Dorsal Striatum - forming habits and other routine behaviors
- **Extended Amygdala** - regulates the brain's reactions to stress-including behavioral responses like “fight or flight” and negative emotions like unease, anxiety, and irritability
- **Prefrontal Cortex** – Responsible for executive functions, such as, organize thoughts and activities, prioritize tasks, manage time, make decisions, and regulate one's actions, emotions, and impulses

Pathophysiology – Cycle of Addiction



Pathophysiology – Cycle of Addiction





Legislative Update

Legislative Updates

- Controlled substances Update (HB1832/SB2258)
 - Adds fentanyl analogue language to schedule I and gabapentin to schedule V
- Opioid Limits (HB1831/SB2257)
 - See next slide
- Partial filling schedule II's (HB2440/SB2025)
 - Patient or prescriber must request; subsequent fills have to be at original pharmacy; expires 30 days after issuance
- Neonatal Abstinence Syndrome (NAS) education (P.C. 901)
 - For opioids >3 days or >180MME; women 15-44yo; exception for women not able to reproduce or if educated < 3 months prior

TN Together

Prevention



- Place reasonable limits on supply and dosage of prescription opioids.
- Increase public awareness through outreach campaign and targeted education.
- Promote best practices in the medical community for pain management.

Treatment



- Ensure that all Tennesseans who need treatment have better access to recovery services and resources.
- Effectively target areas for resources through data, improved access and sharing.
- Expand treatment options and recovery programs, including those within the criminal justice system.
- Create incentives for offenders to complete intensive substance use treatment programs while incarcerated.

Law Enforcement



- Increase funding to address unlawful sale and trafficking of opioids.
- Provide every Tennessee state trooper with Narcan for emergency treatment of overdoses.
- Update the schedule of controlled substances to better track, monitor and penalize the use and unlawful distribution of opioids.

Legislative Updates

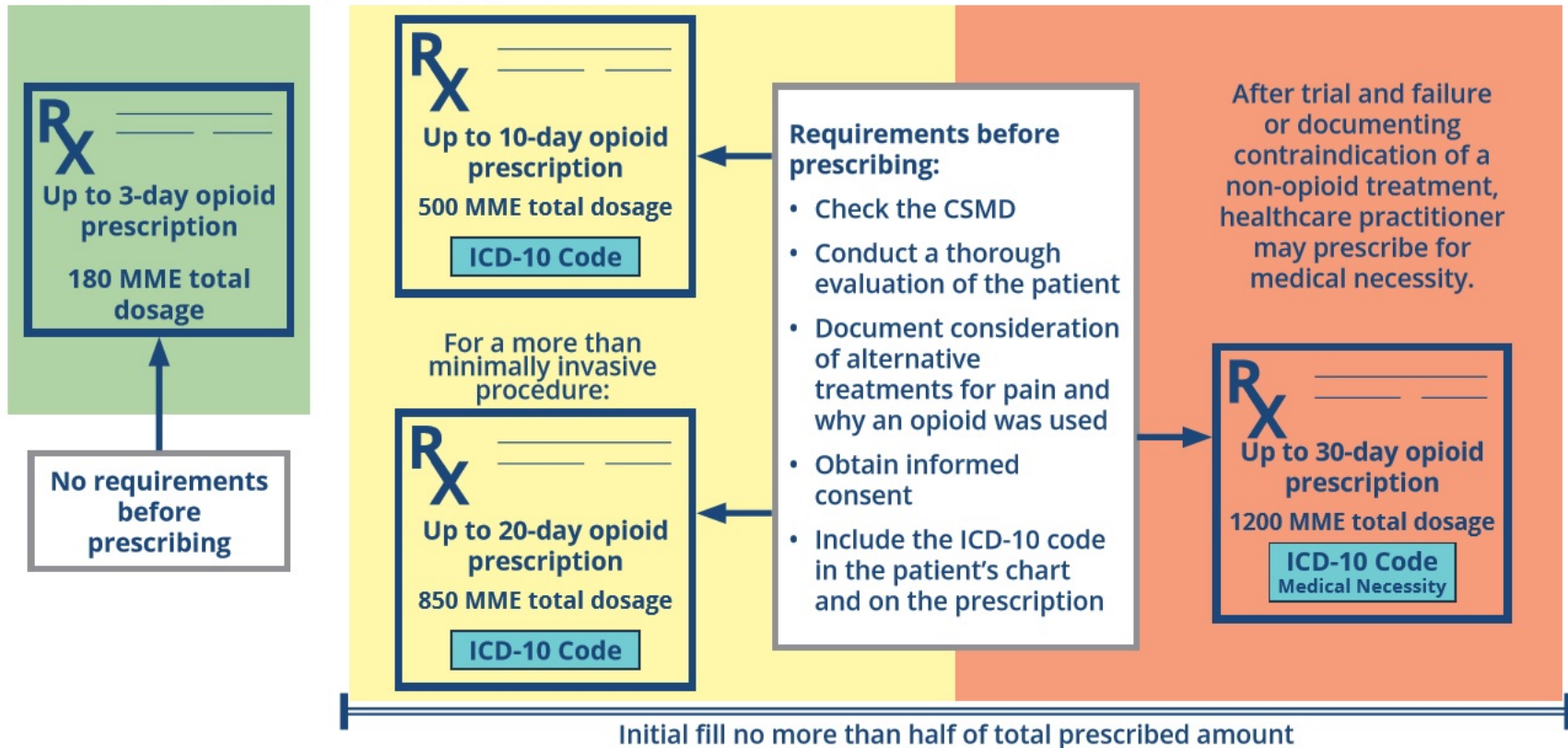
- (48) Fentanyl derivatives and analogues:
- (A) Unless specifically excepted, listed in another schedule, or contained within a pharmaceutical product approved by the United States food and drug administration, any material, compound, mixture, or preparation, including its salts, isomers, esters, or ethers, and salts of isomers, esters, or ethers, whenever the existence of such salts is possible within any of the following specific chemical designations containing a 4-anilidopiperidine structure:
 - (i) With or without substitution at the carbonyl of the aniline moiety with alkyl, alkenyl, carboalkoxy, cycloalkyl, methoxyalkyl, cyanoalkyl, or aryl groups, or furanyl, dihydrofuranyl, benzyl moiety, or rings containing heteroatoms sulfur, oxygen, or nitrogen;
 - (ii) With or without substitution at the piperidine amino moiety with a phenethyl, benzyl, alkylaryl (including heteroaromatics), alkyltetrazolyl ring, or an alkyl or carbomethoxy group, hether or not further substituted in the ring or group;
 - (iii) With or without substitution or addition to the piperdine ring to any extent with one or more methyl, carbomethoxy, methoxy, methoxymethyl, aryl, allyl, or ester groups;
 - (iv) With or without substitution of one or more hydrogen atoms for halogens, or methyl, alkyl, or methoxy groups, in the aromatic ring of the anilide moiety;
 - (v) With or without substitution at the alpha or beta position of the piperidine ring with alkyl, hydroxyl, or methoxy groups
 - (vi) With or without substitution of the benzene ring of the anilide moiety for an aromatic heterocycle; or
 - (vii) With or without substitution of the piperidine ring for a pyrrolidine ring, perhydroazepine ring, or azepine ring;

HB1831/SB2257 Proposed Amendment | To place more guidelines for and checkpoints between healthcare practitioners and patients before an individual is put on a chronic regimen of opioids.

TN TOGETHER

ENDING THE OPIOID CRISIS

A healthcare practitioner may prescribe:



The following are individuals exempted if the prescription includes the **ICD-10 Code** and the word "exempt":

- Patients receiving active or palliative cancer treatment
- Patients receiving hospice care
- Patients with a diagnosis of sickle cell disease
- Patients in a licensed facility
- Patients seeing a pain management specialist
- Patients who have been treated with an opioid for 90 days or more in the last year or who are subsequently treated for 90 days or more
- Patients being treated with methadone, buprenorphine, or naltrexone
- Patients who have suffered severe burns or major physical trauma

Other Select Dept. of Mental Health Activities

- Establishing 10 Lifeliners across the state to intercept individuals needing treatment
- Establishing 18 Regional Overdose Prevention Specialists who educate, train on, and distribute naloxone
- Increased funding for existing antidrug coalitions and establish new ones
- Development of best practice guidelines for substance disorders and specifically buprenorphine



Opportunities

Opportunities for Community Involvement

- Participate in antidrug coalitions. Many coalitions are run by volunteers, many needing clinical expertise.
- Keep naloxone with you especially if work/live in an area of high risk
- Establish/be knowledgeable of drug take back locations
- Know the Tennessee Redline (800-889-9789) for 24/7 referral information or local treatment facility contact information

All this info can be found on our website at tn.gov/behavioral-health



Opportunities for Healthcare Involvement

- Participate in or sponsor antidrug coalitions and lifeline projects.
- Establish naloxone kits for distribution to those at high-risk, that contain the medication, instructions, referral information for treatment centers and where to get more naloxone
- Establish opioid-light prescribing protocols for minor surgeries and emergency rooms
- Ensure effective internal diversion detection processes are in place
- Establish a drug take-back location or provide drug destruction products (like RxDestroyer, etc.)
- Establish relationships with local treatment facilities to establish warm hand-offs for people wanting treatment



Resources

Resources

- tn.gov/behavioral-health
 - Antidrug coalitions, info for naloxone, best-practice guidelines, treatment center contact information, etc
- tn.gov/health/health-program-areas/pdo/
 - Prescription Drug Overdose information, including a dashboard to view OD information to county level
- SAMHSA.gov
 - Publish nationally recognized, best-practice guidelines, treatment locator, all published material is free either in print or electronic form

"The names of the patients whose lives we save can never be known. Our contribution will be what did not happen to them. And, though they are unknown, we will know that mothers and fathers are at graduations and weddings they would have missed, and that grandchildren will know grandparents they might never have known, and holidays will be taken, and work completed, and books read, and symphonies heard, and gardens tended that, without our work, would never have been."

-Donald M. Berwick, MD, MPP, President Emeritus, Institute for Healthcare Improvement

- Questions? Wesley.Geminn@tn.gov