

The Institute for Public Policy and Social Research  
College of Social Science - Michigan State University

# Understanding Socioeconomics of the Opioid Mortality Crisis - - “Narcomics”

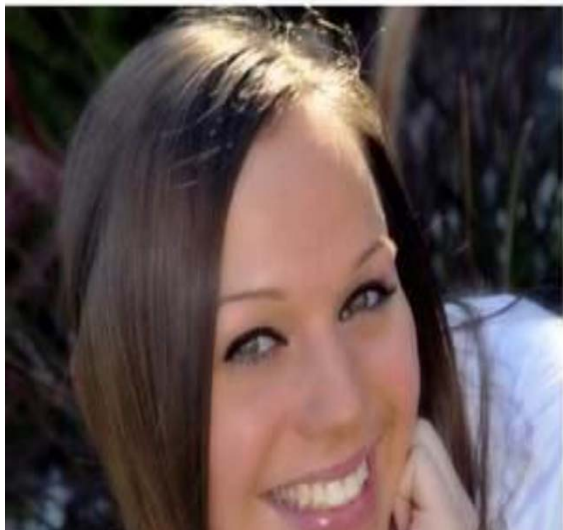
David Neff, DO  
Member, MOA Presidential Task Force on Safe Opioid Use  
Department of Family & Community Medicine, MSUCOM  
Consultant, Office of Medical Affairs, Medical Services Administration,  
MDHHS

# In Michigan...

In 2014 -- 1,762 people died of drug overdose,  
up 13.2% from 2013

In 2015 -- 1,980 deaths occurred which is another 13.3%  
increase from 2014

People like...



MMWR / January 1, 2016 / 64(50);1378-82 for 2014

<https://www.cdc.gov/drugoverdose/data/statedeaths.html> for 2015 (accessed 2/23/2017)

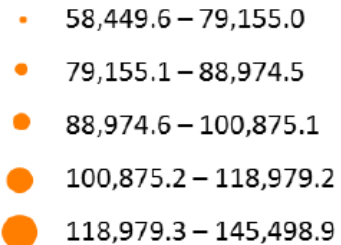
# All Regions of the State Are Affected

## Opioid-related Poisoning Death Rates Per 100,000 MI Residents

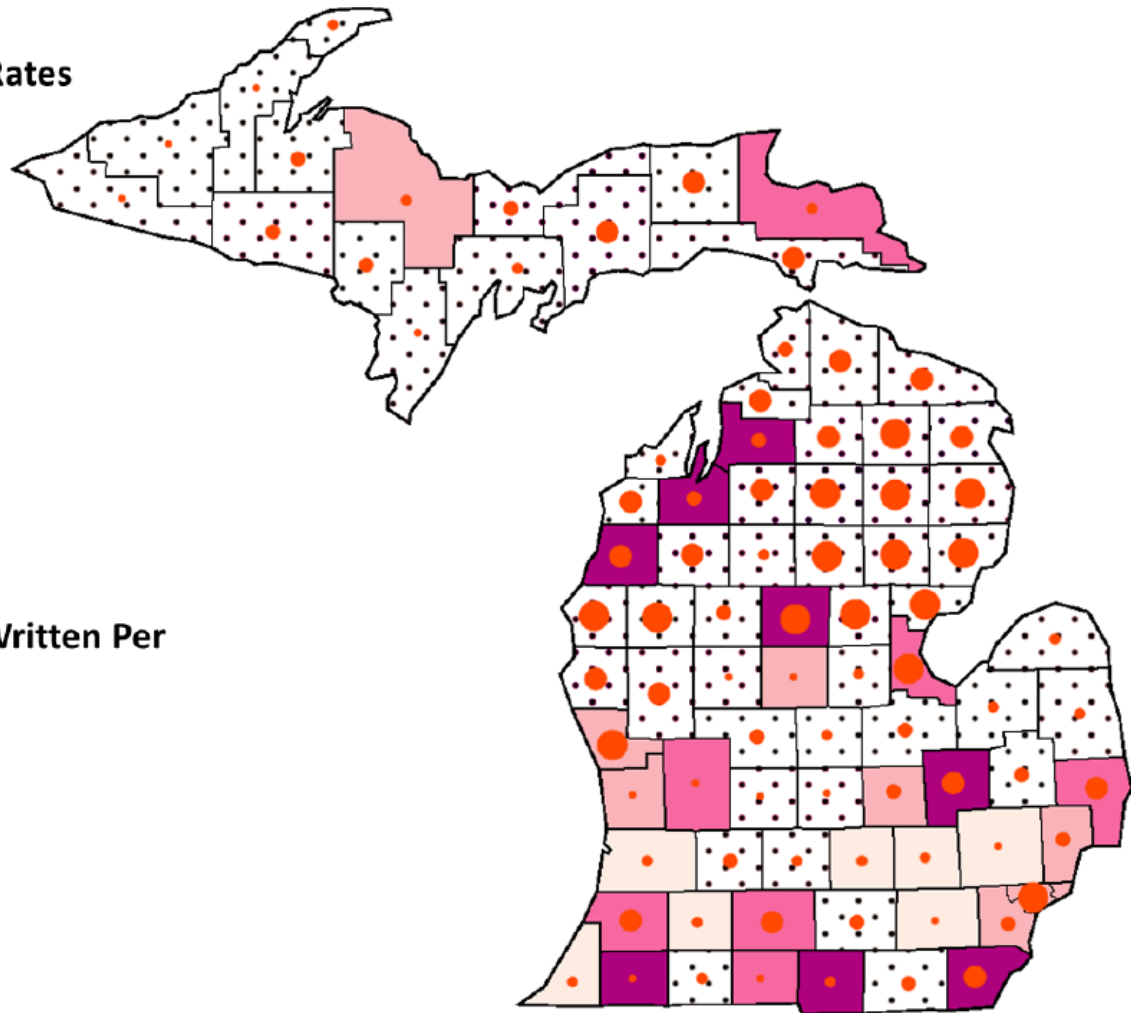


Overall MI rate: 2.3 (95% CI: 2.2 – 2.5)

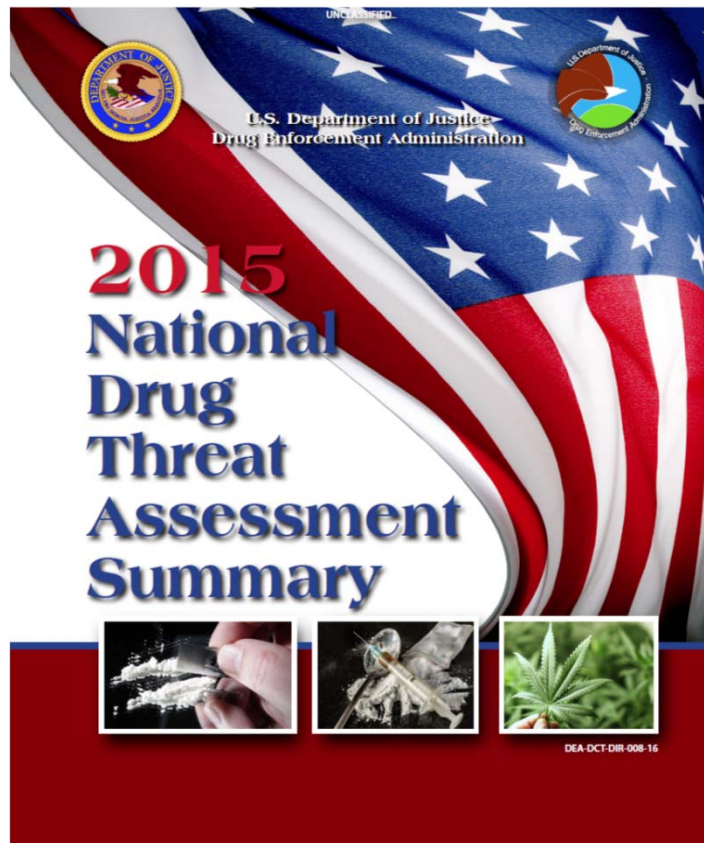
## Number of Opioid Prescriptions Written Per 100,000 MI residents



Overall MI Rate: 92,792.7



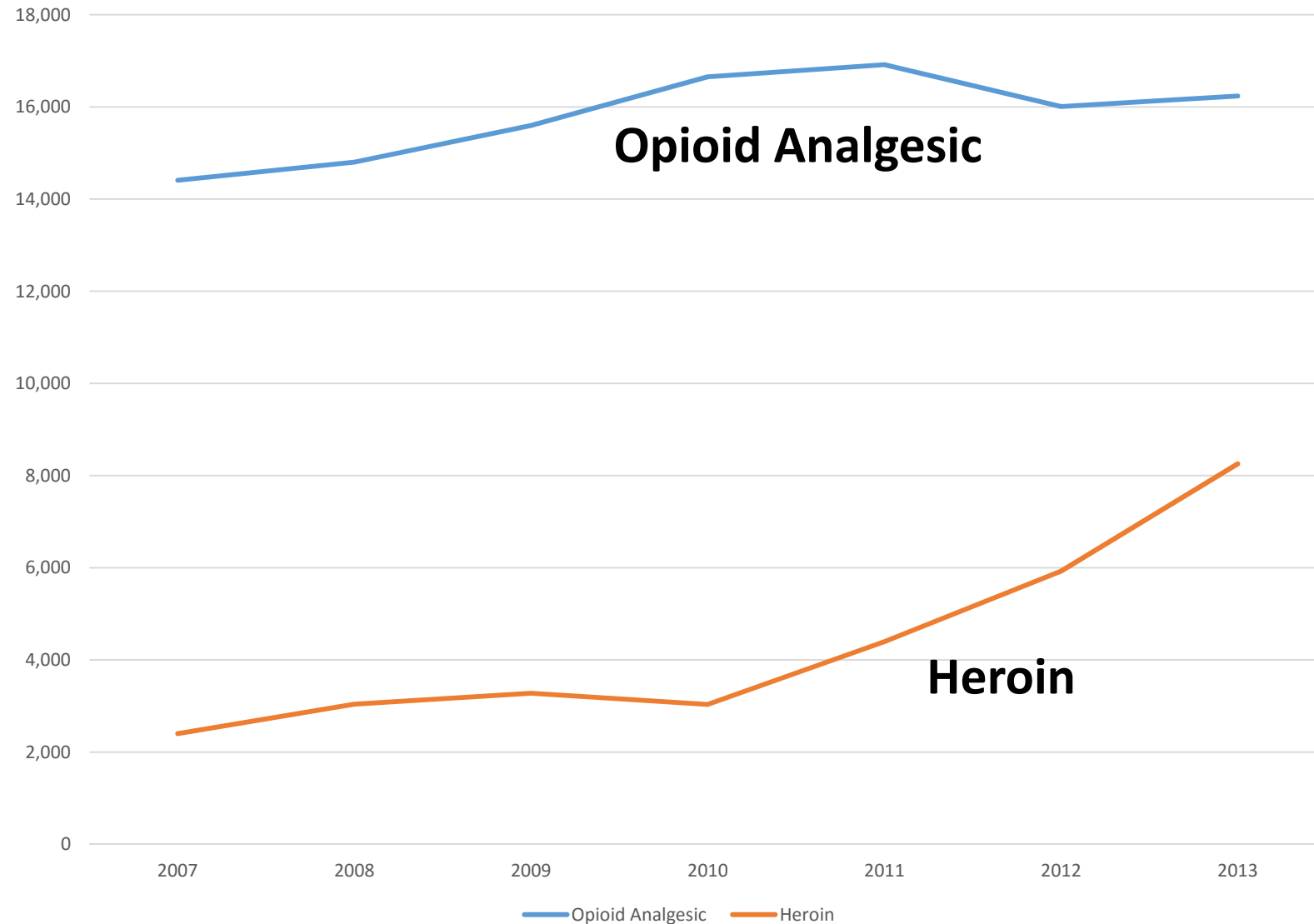
# How Did This Happen? -- Pivotal Reports By the FDA and Homeland Security



2015 National Drug Threat Assessment

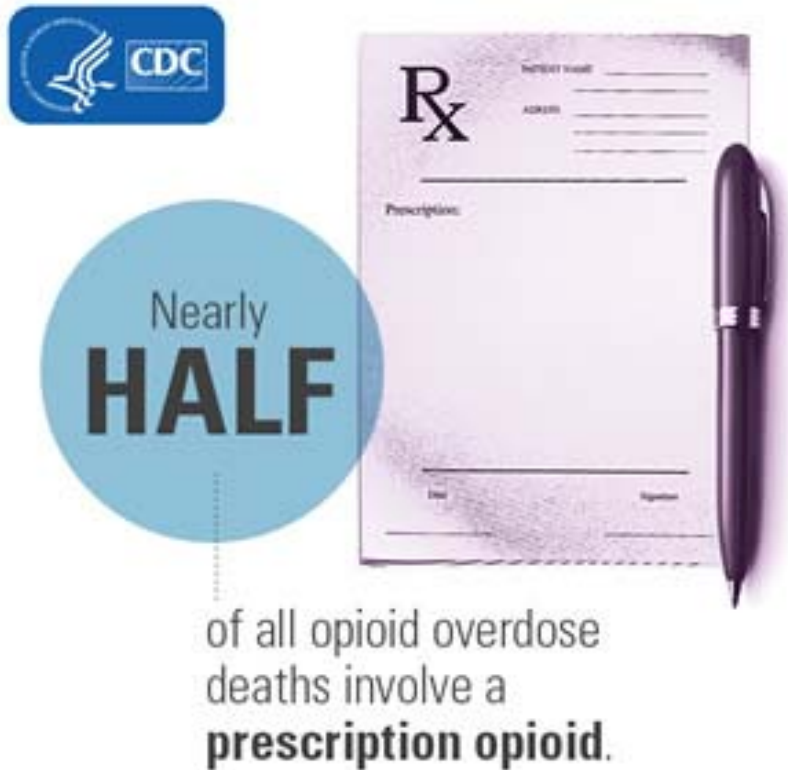
2016 National Heroin Threat Assessment Summary – Updated DEA-DCT-031-16

# 2/3 of All Deaths are Directly Related to Prescription Opioids



NCHS/CDC Final Death Data For Each Year

# When the Prescription Becomes the Problem

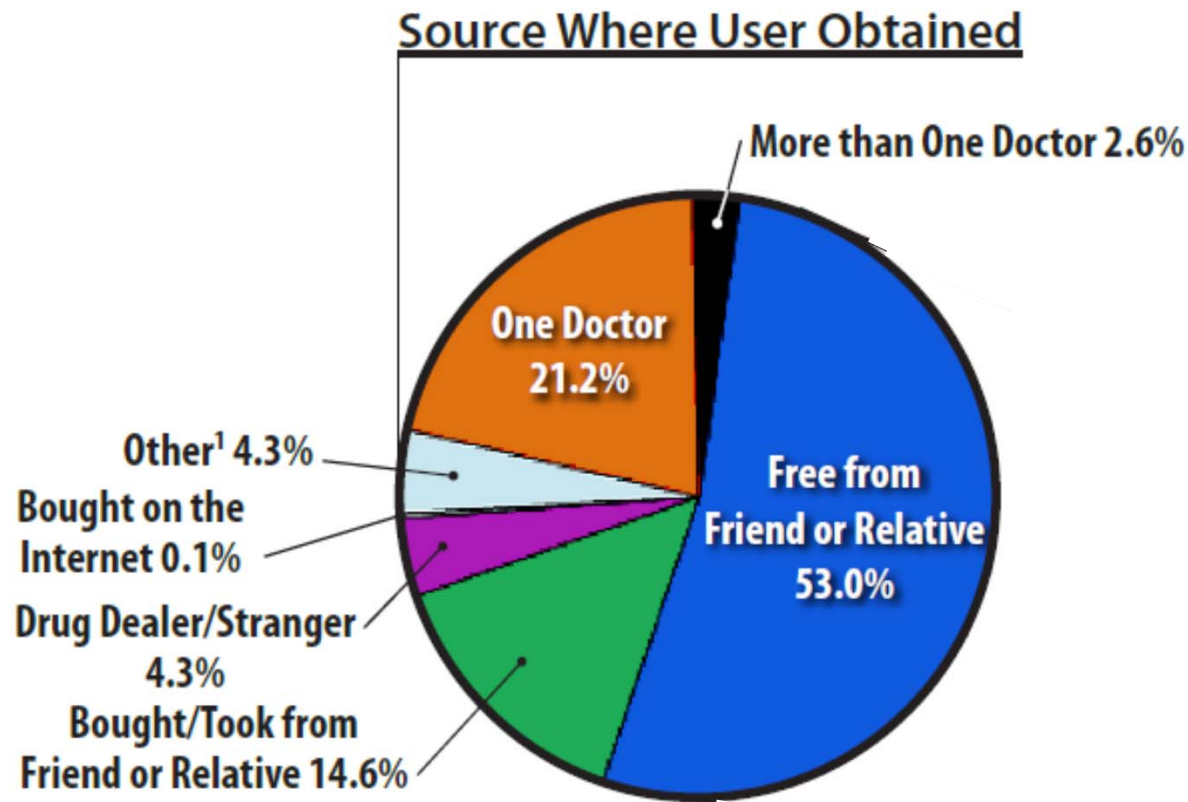


- Providers wrote nearly a quarter of a billion opioid prescriptions in 2013—with wide variation across states. This is enough for every American adult to have their own bottle of pills.<sup>1</sup>
- Health care providers in the highest prescribing state, Alabama, wrote almost three times as many of these prescriptions per person as those in the lowest prescribing state, Hawaii.<sup>2</sup>
- Studies suggest that regional variation in use of prescription opioids cannot be explained by the underlying health status of the population.<sup>2</sup>
- The most common drugs involved in prescription opioid overdose deaths include:
  - Methadone
  - Oxycodone (such as OxyContin®)
  - Hydrocodone (such as Vicodin®)<sup>3</sup>
- To reverse this epidemic, we need to improve the way we treat pain. We must prevent abuse, addiction, and overdose before they start.



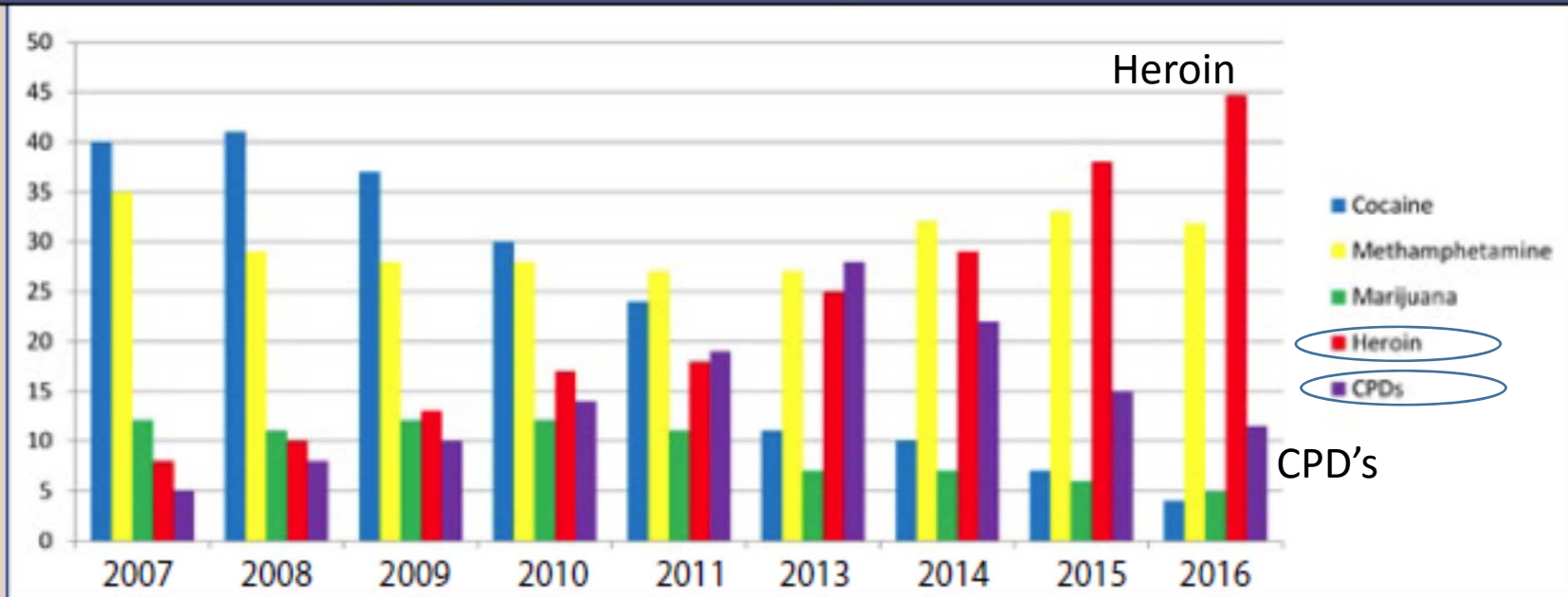
# However, 3/4 of Prescription Opioids Were Obtained For Free, Bought or Stolen And Enter the Black Market Largely Out of Prescribers' Hands

Much of This Use Started for Recreational and Not Medicinal Purposes



# In 2015-16 – Heroin Became the Greatest National Threat and the Controlled Prescription Drug (CPD) Threat Diminished

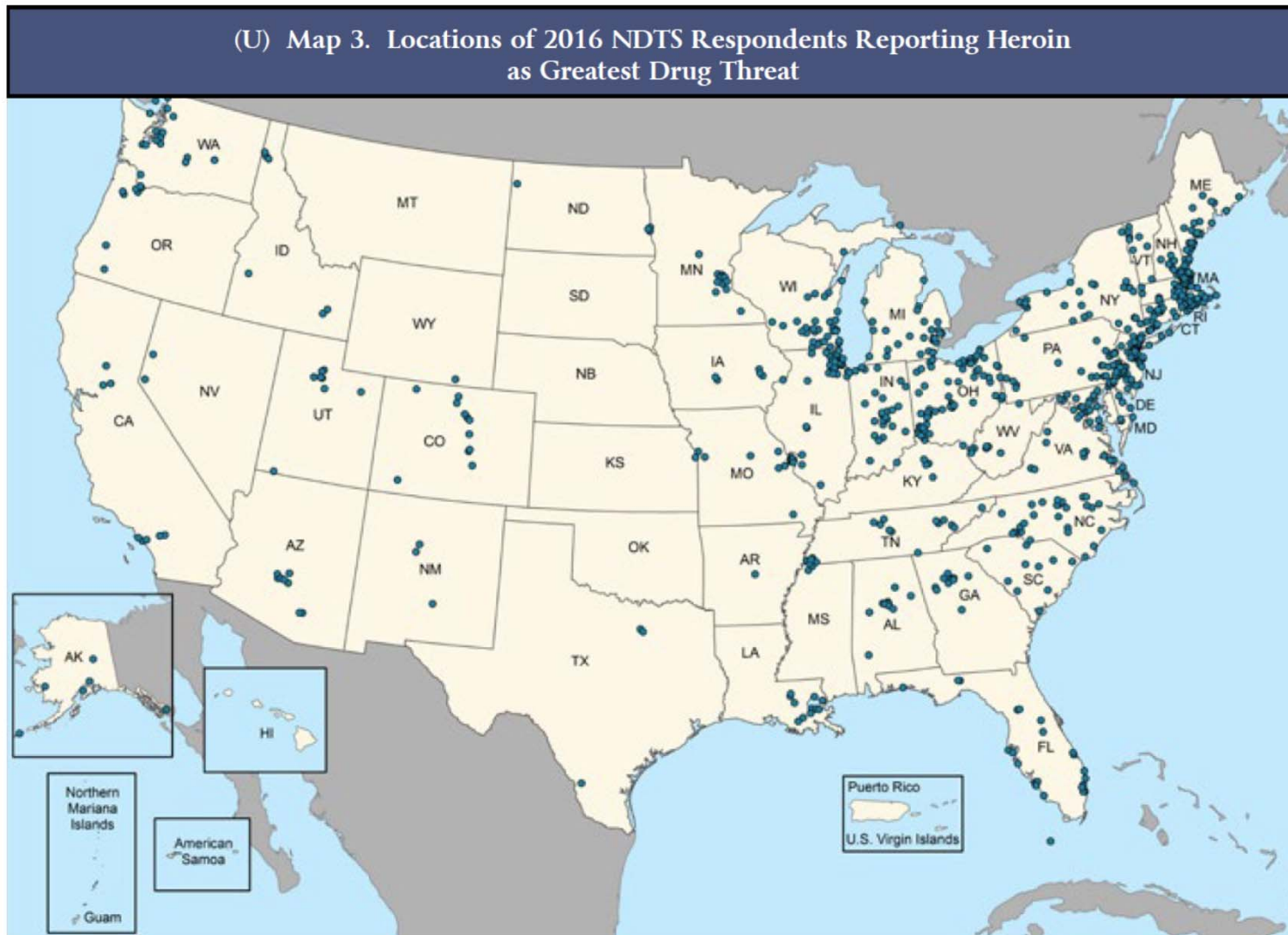
(U) Chart 2. Percentage of NDTS Respondents Reporting the Greatest Drug Threat, 2007 to 2016



Source: National Drug Threat Survey



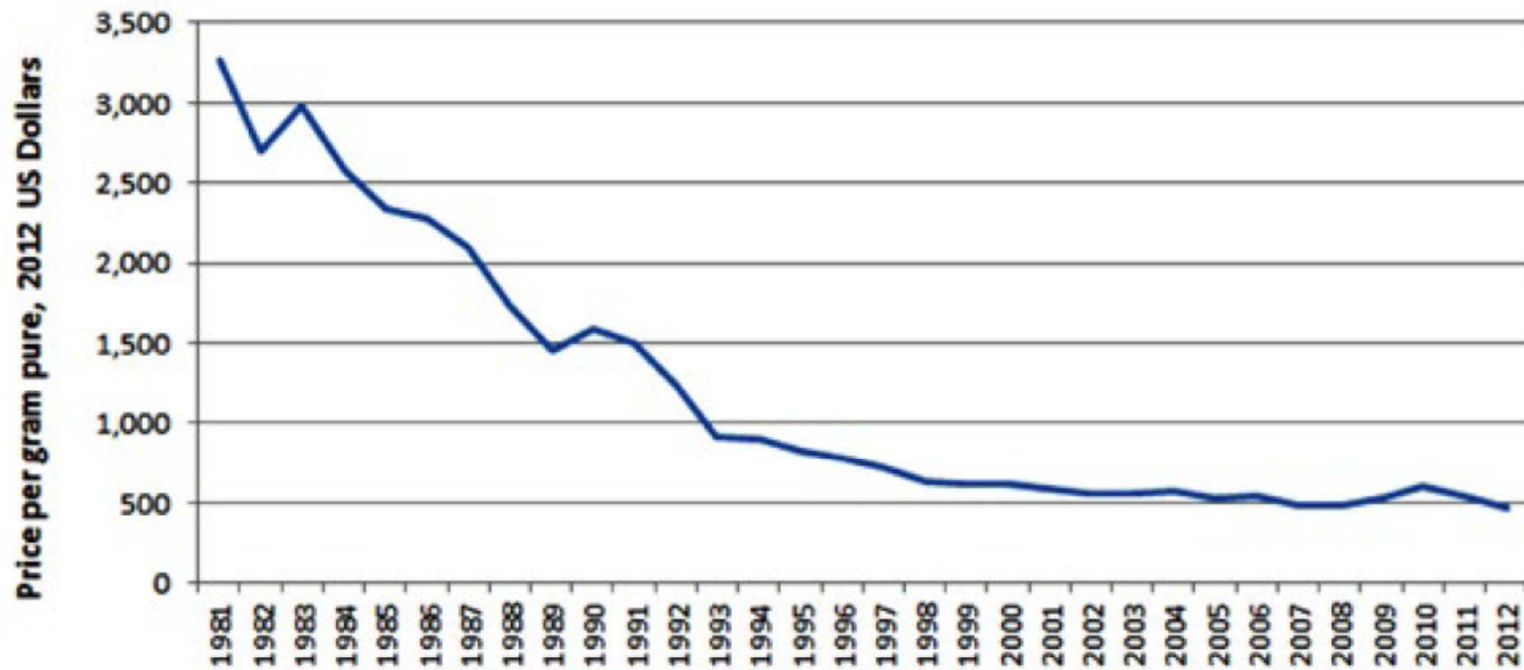
# The National Heroin Threat is the Greatest in the Northeast Corridor and the Midwest



Source: 2016 National Drug Threat Survey

# Heroin is Now Cheaper Than Illicitly Obtained Prescription Opioids

(U) Chart 6. Retail-level Average Price Per Gram Pure, for Heroin in the United States, 1981 to 2012



Source: Institute for Defense Analyses and ONDCP

# 2/3 of Great Lakes NDTS Respondents View Heroin as the Greatest Threat

**It is now compounded by much more potent Fentanyl and  
Carfentanil being laced in Heroin**

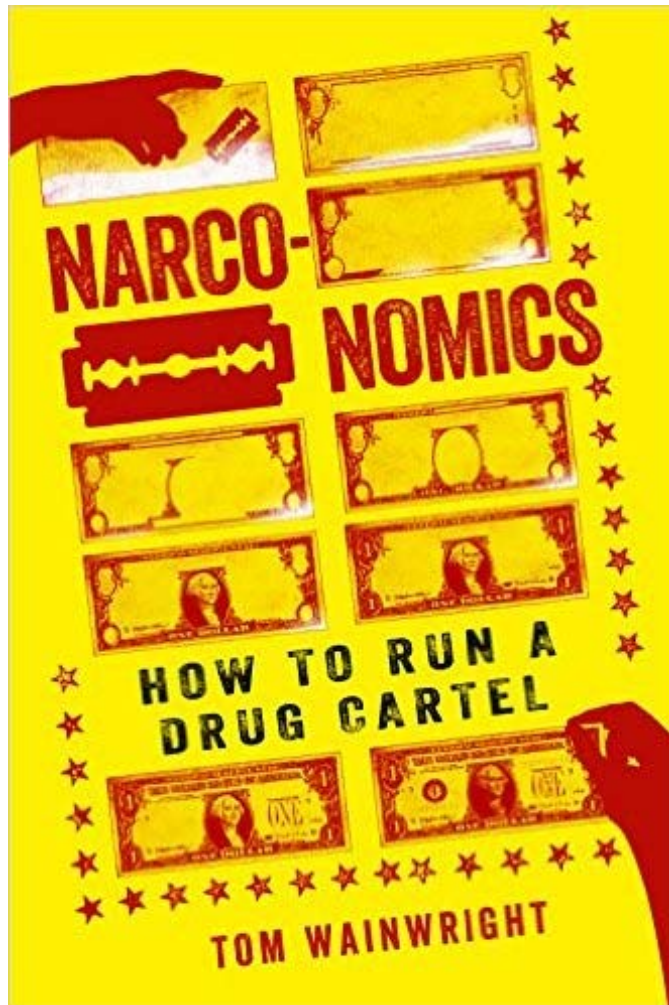


# Most Heroin in the US Comes From 8 Mexican Drug Cartels





# Large Corporate-like Success of Drug Cartels



- \$300 billion illegal drug business run predominately by 8 Mexican Cartels
- Adoption of the strategy and tactics used by large global corporations such as Walmart, McDonald's, and Coca-Cola.
- Highly sophisticated agricultural, manufacturing, sales, and distribution practices including creating brand value and fine-tuning customer service
- Leverages smart phone technologies and the dark internet



# \$300B of Heroin Revenues are As High as the Largest Global Corporations

| Ranking | Name                                     | Industry                             | Revenue (USD billions) | Revenue growth | Headquarters                          |
|---------|--|--------------------------------------|------------------------|----------------|---------------------------------------|
| 1       | <a href="#">Walmart</a>                  | <a href="#">Retail</a>               | \$482                  | 0.7%           | <a href="#">Bentonville, Arkansas</a> |
| 2       | <a href="#">State Grid</a>               | <a href="#">Electric utility</a>     | \$330                  | 2.9%           | <a href="#">Beijing</a>               |
| 3       | <a href="#">China National Petroleum</a> | <a href="#">Oil and gas</a>          | \$299                  | 30.2%          | <a href="#">Beijing</a>               |
| 4       | <a href="#">Sinopec Group</a>            | <a href="#">Oil and gas</a>          | \$294                  | 34.1%          | <a href="#">Beijing</a>               |
| 5       | <a href="#">Royal Dutch Shell</a>        | Oil and gas                          | \$272                  | 36.9%          | <a href="#">The Hague</a>             |
| 6       | <a href="#">Exxon Mobil</a>              | Oil and gas                          | \$246                  | 35.6%          | <a href="#">Irving, Texas</a>         |
| 7       | <a href="#">Volkswagen</a>               | <a href="#">Automotive</a>           | \$237                  | 11.9%          | <a href="#">Wolfsburg</a>             |
| 8       | <a href="#">Toyota</a>                   | Automotive                           | \$237                  | 4.5%           | <a href="#">Toyota, Aichi</a>         |
| 9       | <a href="#">Apple</a>                    | <a href="#">Consumer electronics</a> | \$234                  | 27.9%          | <a href="#">Cupertino, California</a> |
| 10      | <a href="#">BP</a>                       | Oil and gas                          | \$223                  | 37%            | <a href="#">London</a>                |

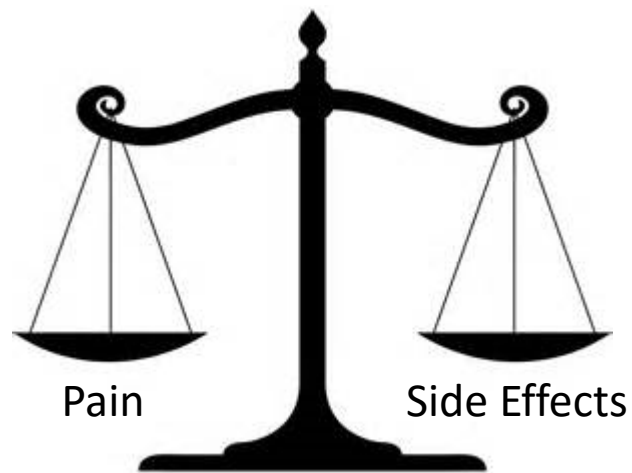


# How Did This Happen?

## Other Root Causes

- The emphasis on Pain as the 5<sup>th</sup> vital sign from the Joint Commission in 15-20 years ago as an unanticipated consequence, including eliminating dose ceilings for opioids
  - Increased opioid prescriptions to address perceived undertreatment of chronic pain
  - Laws or regulations passed in >20 states to allow use of opioids for chronic pain
  - the emergence of long acting opioids and pharmaceutical marketing practices
    - Studies describing benefits of long-term opioid therapy for chronic pain, with low rates of abuse, addiction, or other serious AE's -
    - Most prescribed low doses (<20 mg MED/day)
- Patient satisfaction surveys -- the increased focus on patient- centered and customer centric health strategies in a clinical scenario where boundaries of behavior should be well-defined and appropriately managed
- The current health care system is not currently well designed to take pain and addiction treatment programs to scale statewide
- There has been traditional lack of financial support to address the crisis in a cohesive large scale manner

# Primary Care Physicians Are the First and Last Line to Effectively Control Pain and Minimize Side Effects of Treatment



## Challenges

- Lack of common understanding the neurobiological basis of addiction – it's not a matter of strong will or self-discipline
- Often the last one's "holding the stick" when returning from specialty clinics
- Poor stigmata of the addicted patient in the waiting room
- The PCP's plate is already full
  - care for 50-100 different clinical problems with increased demands to focus on quality
  - Increase documentation, but still control cost
  - very little available time
  - staffing and resource limitations
  - inadequate pain therapy options
  - inadequate funding

# Additional Challenges

- Traditional lack of alternate evidence-based solutions
- Increasing need for Centers of Excellence for Complex Pain and Addiction Management, ie, Project Echo in Vermont, New Mexico & the VA



With all being said...  
it is no longer possible to  
simply continue previous  
practices .....  
the associated risks of  
opioid diversion,  
overdose, and addiction  
demand change (now)

From the National Institute on Drug Abuse, National Institutes of Health (NIDA),  
Bethesda, MD and the Treatment Research Institute, Philadelphia

**N Engl J Med 2016;374:1253-63. DOI: 10.1056/NEJMr1507771**

# The MOA Strategy (2015-17)

Developing the Strategic Plan at the Health Care  
Provider, the Health System Level and with Law  
Enforcement in the Community



# The MOA 5 + 2 Strategy (2015-17)

**Goal - reduce opioid-related deaths and morbidity, while we treat patients with pain and/or addiction with compassion and expertise.**



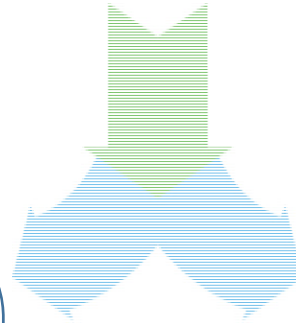
# Objectives

1. **Decrease preventable deaths** related to opioid and other drug-related overdose yet continue to treat pain compassionately
2. **Improve continuity of care** for patients in pain or with opioid use disorder
3. **Improve expertise of health care professionals** in managing the acute and chronic non-cancer pain (CNCP)
4. **Prevent opioid dependence** where it is possible
5. **Effectively manage opioid dependence** when it occurs
6. **Help eliminate diversion** of controlled prescriptions and illicit drug trafficking

## Two Pronged Strategy – Providers and Health System

### Providers

- Providers – take the lead to control what they can through education, advocacy and practice improvement
- Professional societies Can Assist – DO, MD, DDS, PharmD, NP, and PA



### Health System

- The newly designated **Michigan Prescription Drug and Opioid Abuse Commission**
- Health System and Law Enforcement work to improve the system dynamics statewide – SOM Government, Hospitals, Health Plans, Law Enforcement, Communities

# “5” Strategic Pillars

- 1 First Things First - Prevent Death With Naloxone
- 2 Stabilize Addiction with Medication-Assisted Treatment (MAT)
- 3 Establish Long-term Person-Centered Treatment Goals for Successful Recovery
- 4 Change Opioid Prescribing Habits
- 5 Shrink the Supply and Demand of Illicit Drugs

## “2” Other Pillars

- Accelerate Health Systems Research for Pain Management and Addiction to Facilitate Education, Improve Quality, and Manage Cost
- Leverage Health Information Technology (HIT) Techniques
  - MAPS
  - Disease Management Software for Pain and Addiction Within Electronic Medical Records and Other Clinical Databases, Including Patient Alerts and Population Level Dashboards

# All Things Considered

- This is a multifaceted and complex issue and all stakeholders statewide must work expeditiously in a timely, collegial and professional manner
- The Health System, starting with the prescriber, must change prescribing habits to shrink the non-medicinal demand for opioids in the first place and shrink the supply of opioids in the medicine cabinet that leads to black market supply
- Law Enforcement (with the assistance of the Health System) must shrink the supply and demand for illicit distribution of prescription opioids and heroin (including that laced with fentanyl and carfentanyl)
- It must be kept in mind, however, this problem is not altogether the prescriber's burden alone and strategy should be targeted at the larger problem at hand

# Conclusion

- The Opioid Mortality Epidemic can be stemmed but it will require a focused systematic large scale effort among all stakeholders within the MI Health System and Law Enforcement
- Most of all it does take a village – all villages here in Michigan