

# The Prescription Drug Overdose Epidemic: Prevention and Mitigation A National Overview

Len Paulozzi, MD, MPH

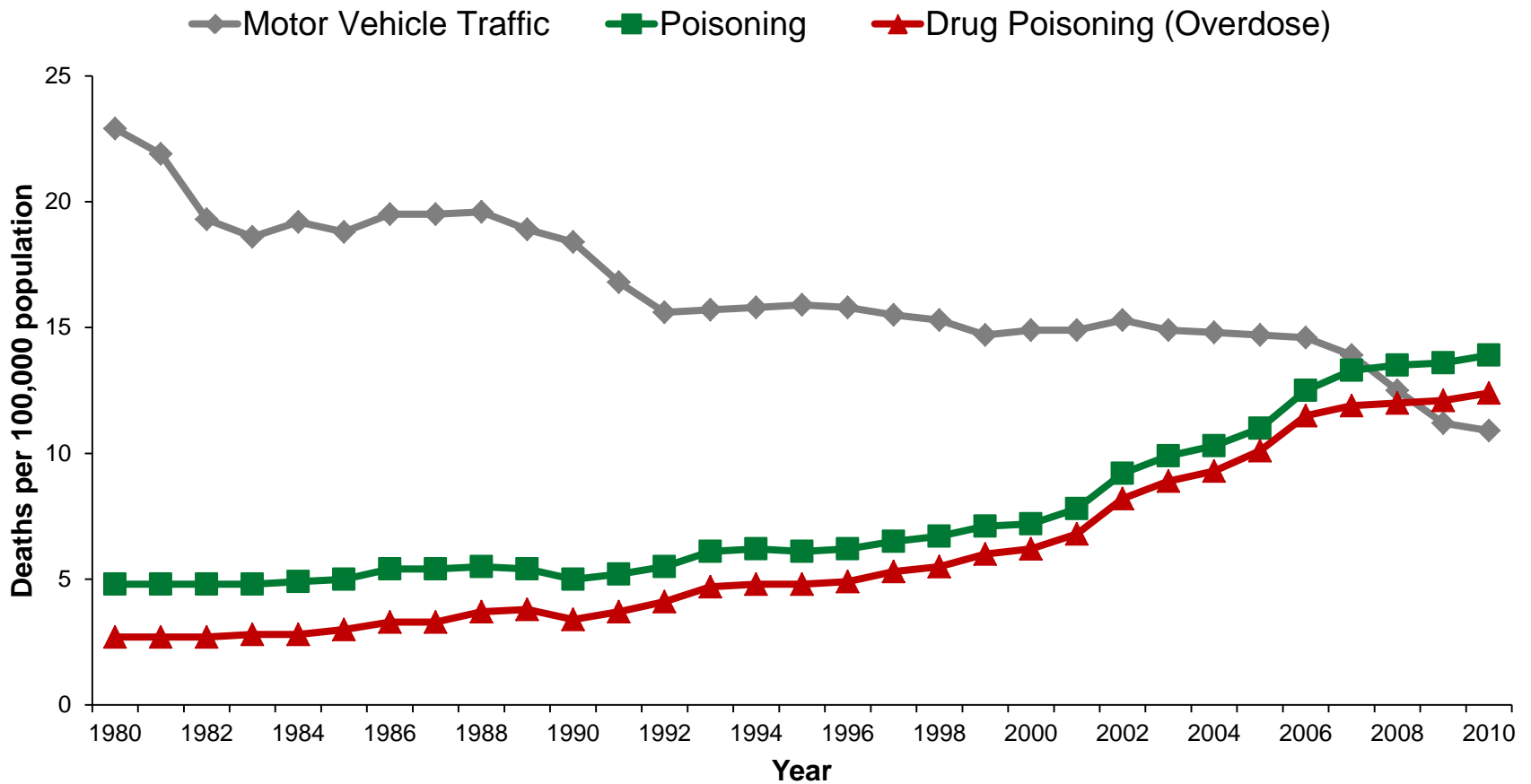
March 13, 2014

National Center for Injury  
Prevention and Control

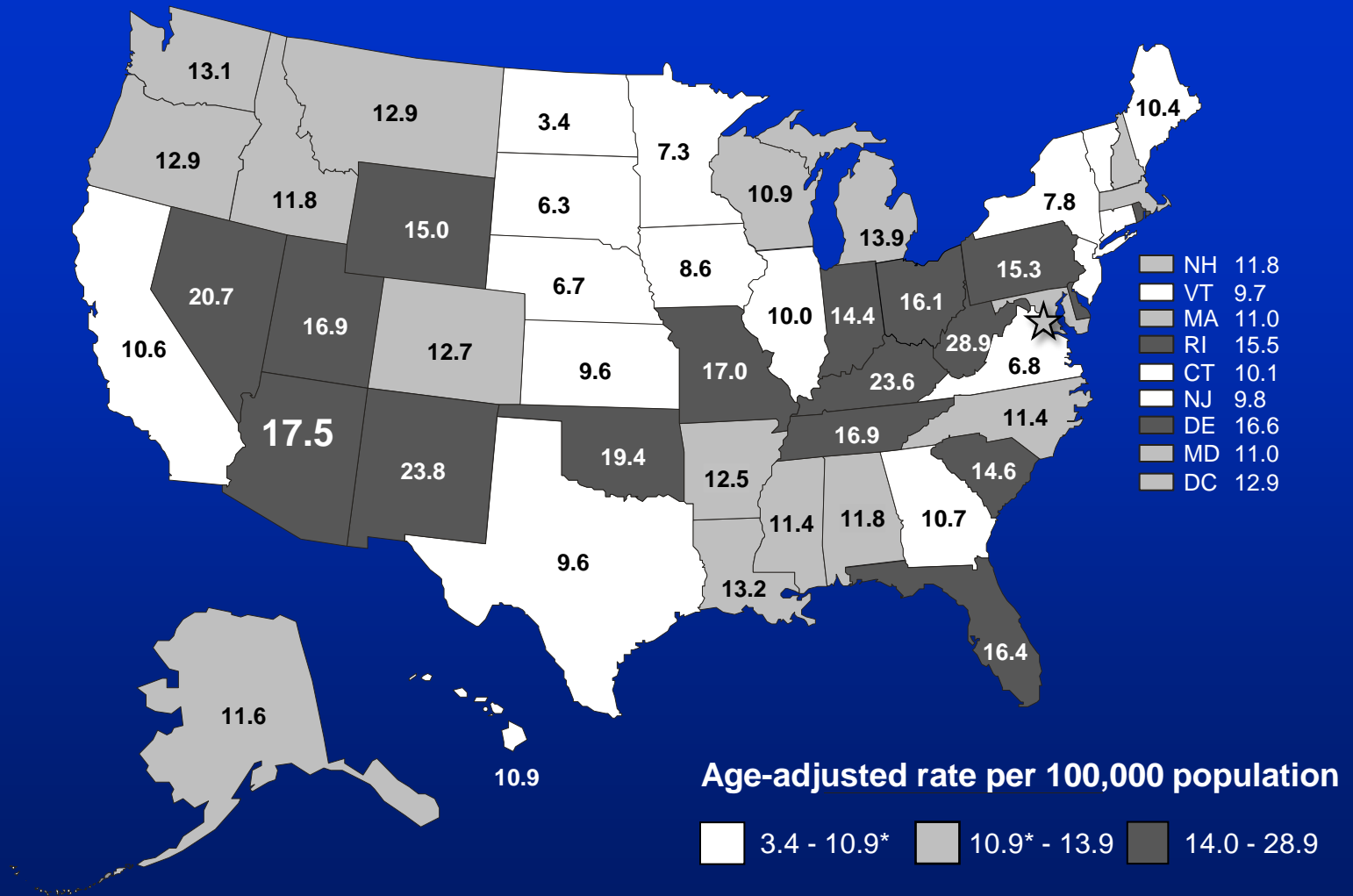
Centers for Disease Control and Prevention



# Drug overdoses have surpassed motor vehicle crashes as the leading cause of injury death

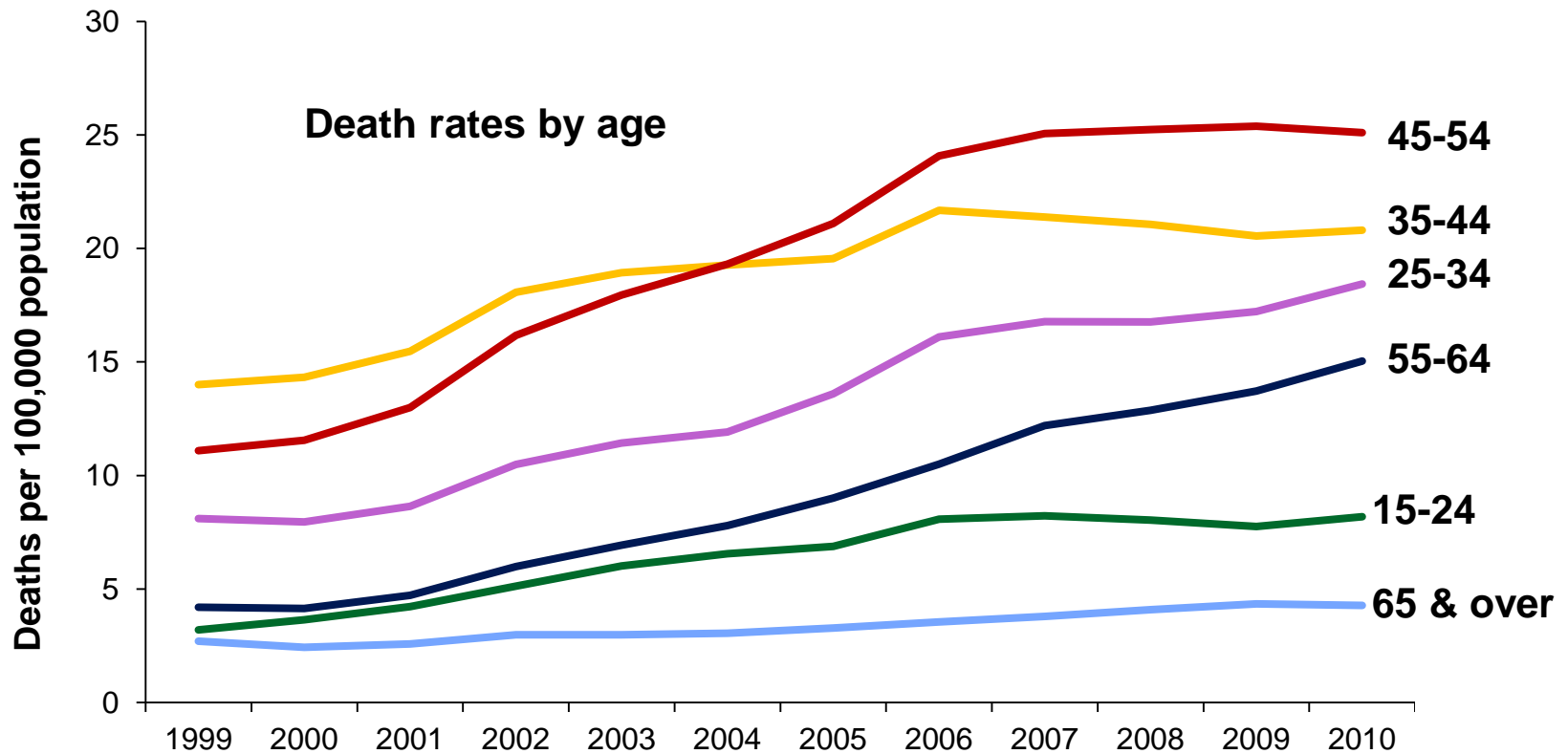


# Death Rates for Drug Overdose by State, 2010

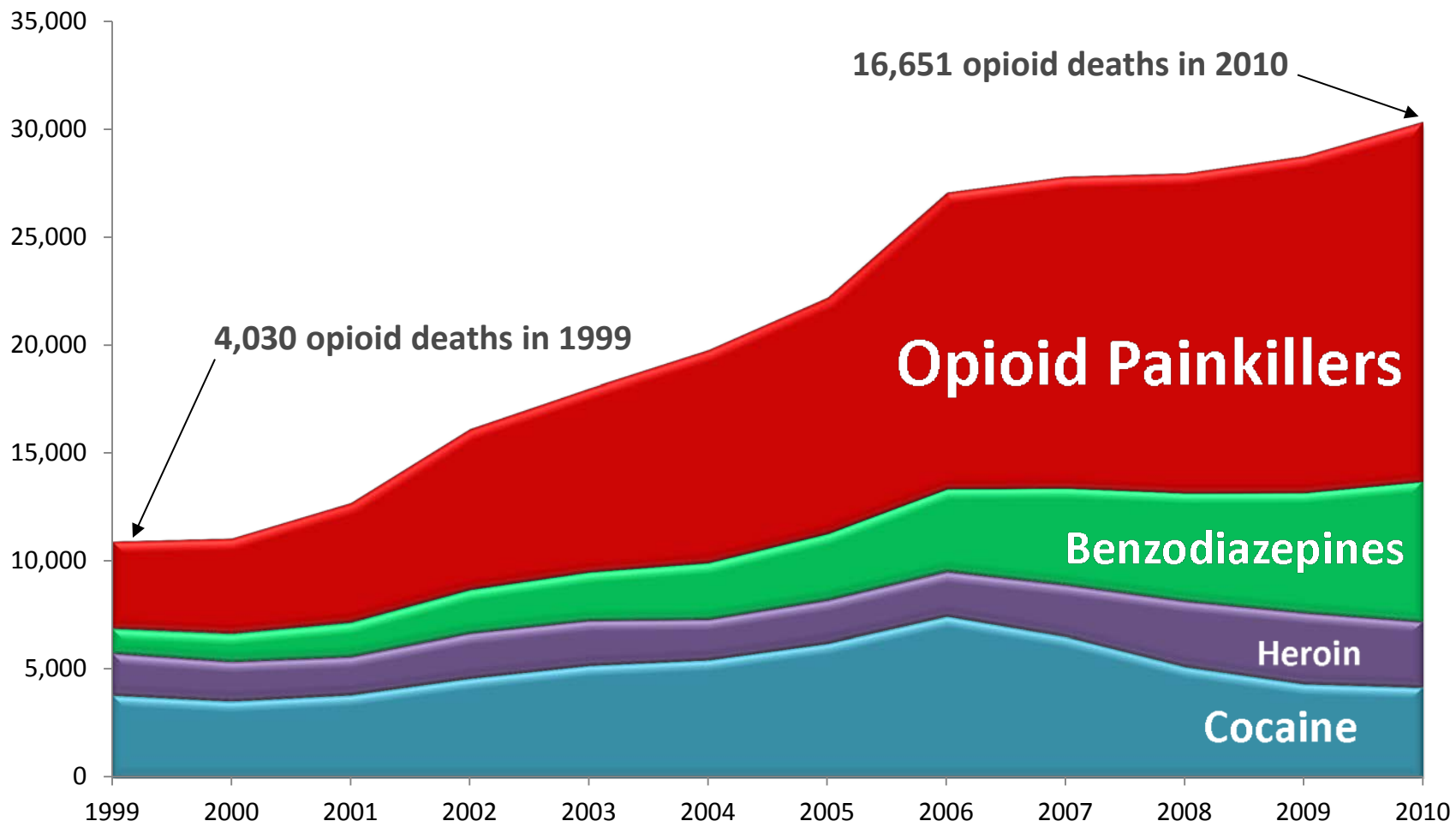


Footnote: \*10.9 is in two ranges due to rounding. HI is 10.88 while WI is 10.94

# Middle-aged adults are at greatest risk for drug overdose in the US

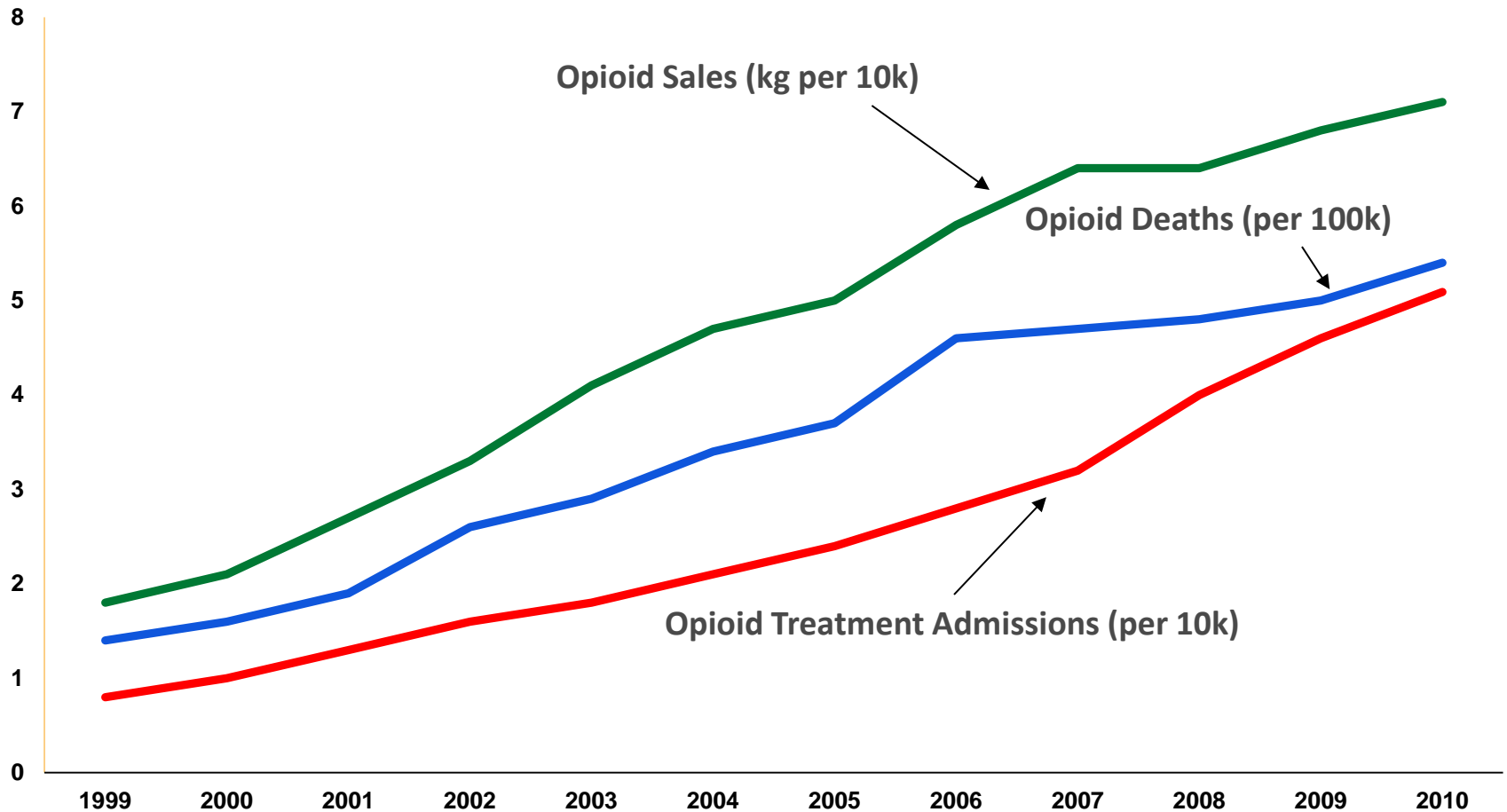


# Opioid overdoses have driven the surge in overdose deaths



National Vital Statistics System, 1999-2010

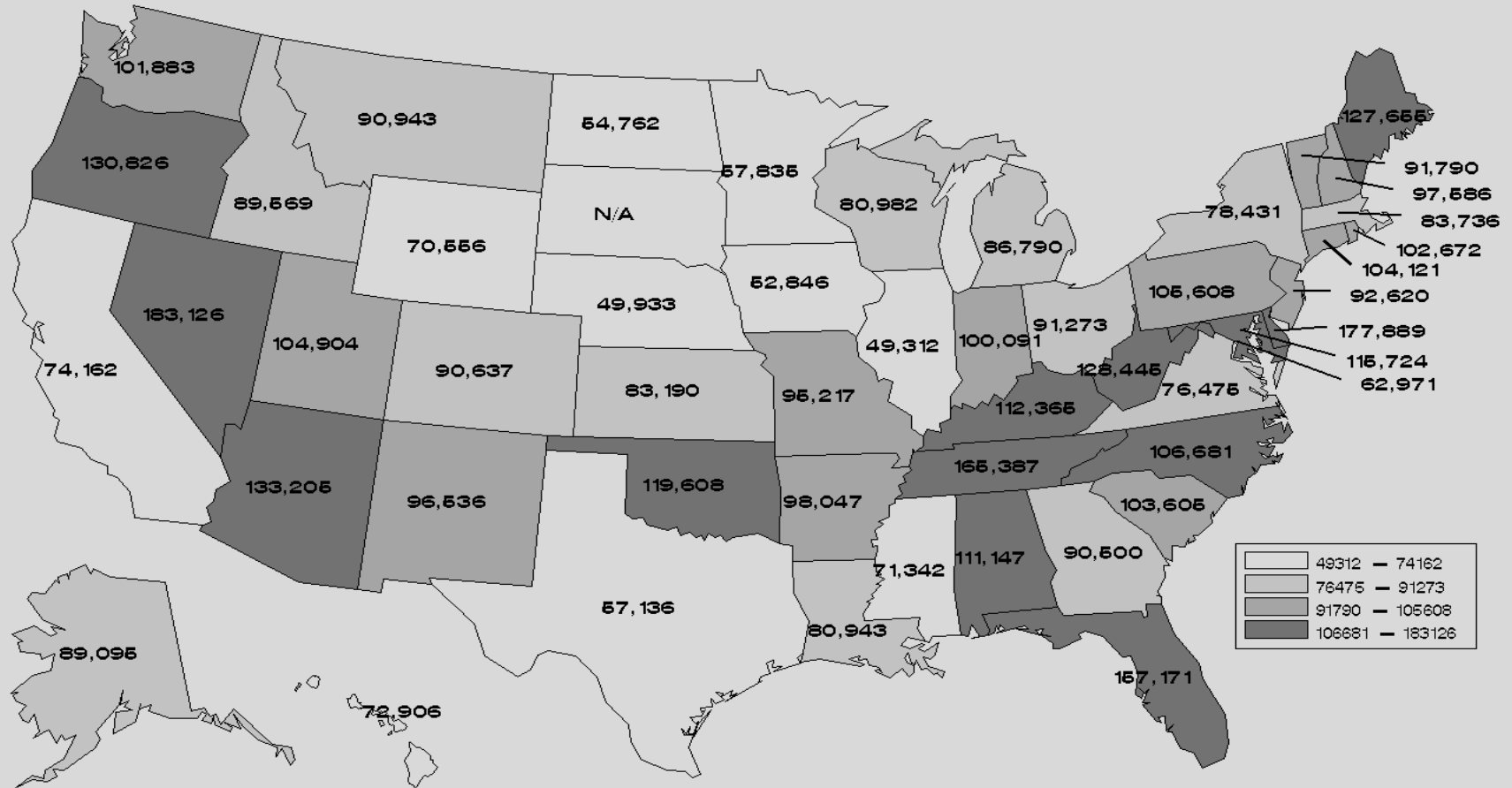
# Opioid deaths, sales, and treatment admissions have increased in lockstep



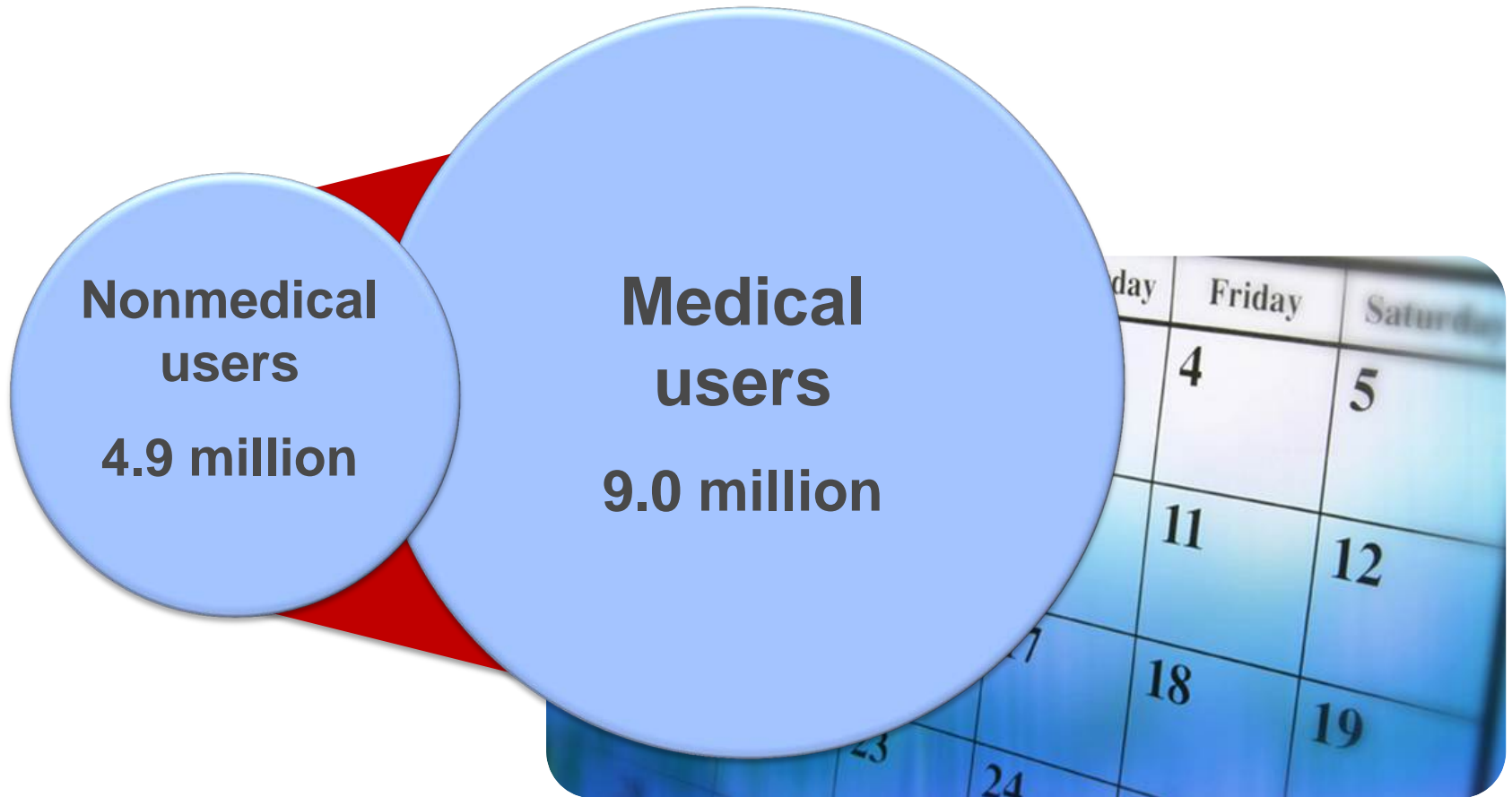
National Vital Statistics System, DEA's Automation of Reports and Consolidated Orders System, SAMHSA's TEDS

# Opioid analgesic prescribing rates, United States, 2011

Grams of opioids per 100,000 population in morphine equivalents, 2011 (DEA ARCOS Data)



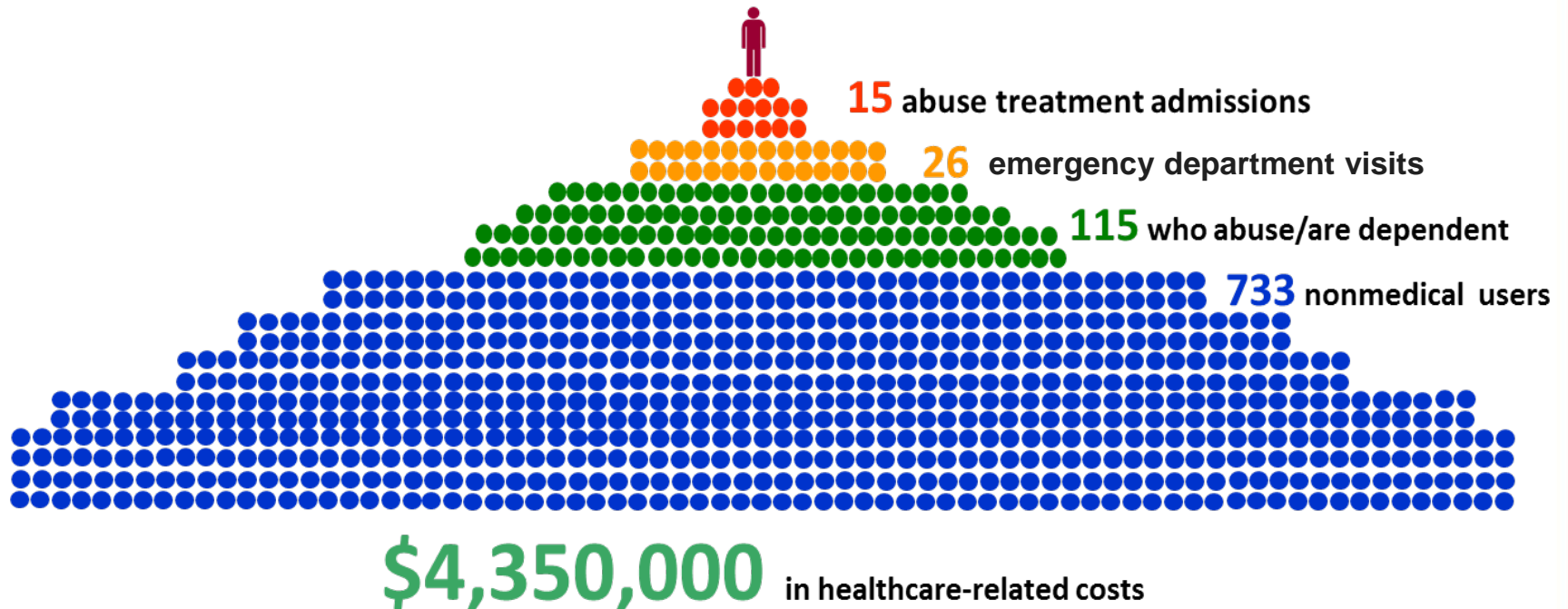
# Opioid analgesics users in the past month





# Overdose deaths are the tip of the iceberg

For every **1** opioid overdose death in 2010 there were...

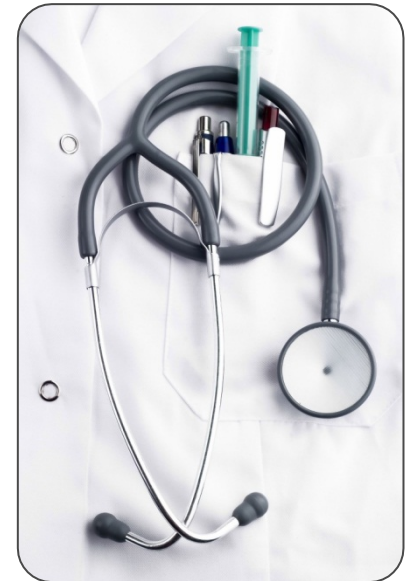


SAMHSA NSDUH, DAWN, TEDS data sets

Coalition Against Insurance Fraud. Prescription for Peril. <http://www.insurancefraud.org/downloads/drugDiversion.pdf> 2007.

# Economic costs are high

- ❑ **\$72.5 billion in healthcare costs<sup>1</sup>**
- ❑ **Opioid abusers generate, on average, annual direct health care costs 8.7 times higher than nonabusers<sup>2</sup>**



1. Coalition Against Insurance Fraud. Prescription for peril: how insurance fraud finances theft and abuse of addictive prescription drugs. Washington, DC: Coalition Against Insurance Fraud; 2007
2. White AG, Birnbaum, HG, Mareva MN, et al. Direct Costs of Opioid Abuse in an Insured Population in the United States. *J Manag Care Pharm.* 11(6):469-479. 2005

# Risk Factors

## □ Demographics

- Men
- 35-54 year olds
- Whites
- American Indians/Alaska Natives



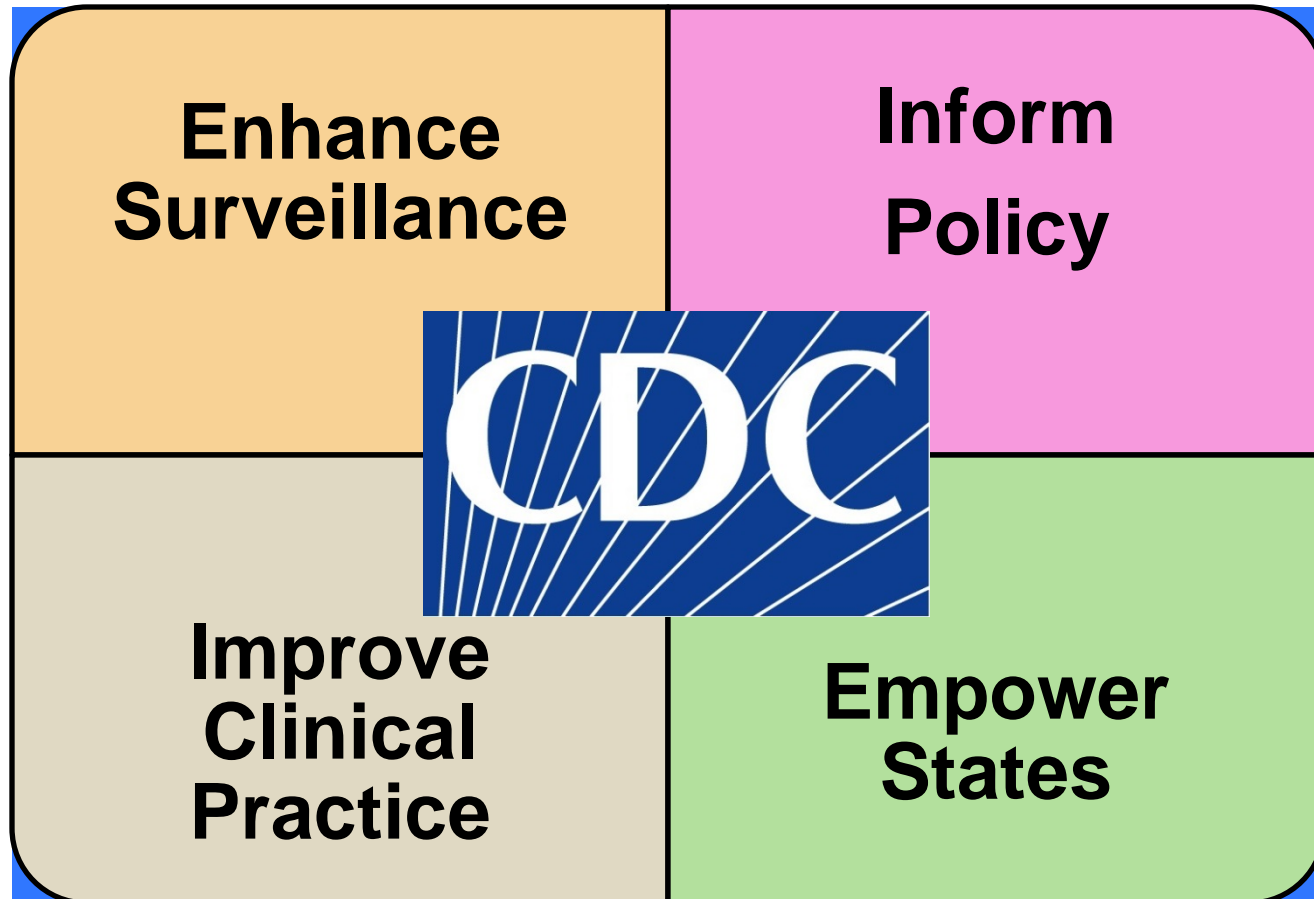
## Socioeconomics and Geography

- Medicaid
- Rural

## Clinical Characteristics

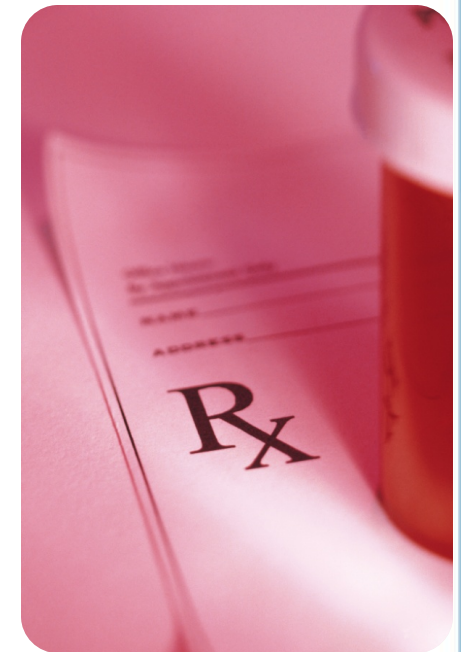
- Chronic pain
- Substance abuse
- Mental health
- Nonmedical use
- Multiple prescriptions
- Multiple prescribers
- High daily dosage

# CDC's public health response: focus areas



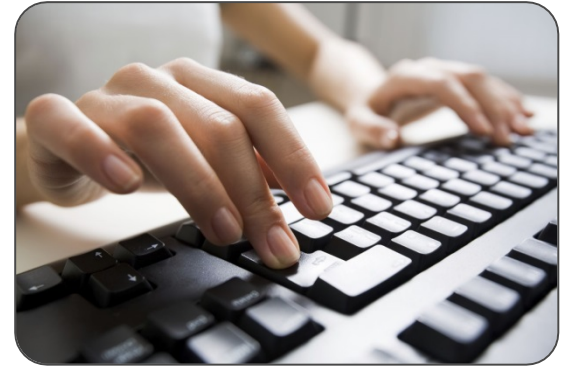
# CDC's approach to prescription drug overdose prevention

- ❑ **Data driven and evidence-based**
- ❑ **Complements other agencies**
- ❑ **Focuses on empowering states to address 3 key drivers of the epidemic**
  - The link between increased, often inappropriate, prescribing of opioids and increased overdose deaths
  - The small percentage of providers responsible for most of the inappropriate prescribing
  - The small percentage of high-risk patients engaging in abuse and diversion going undetected by providers

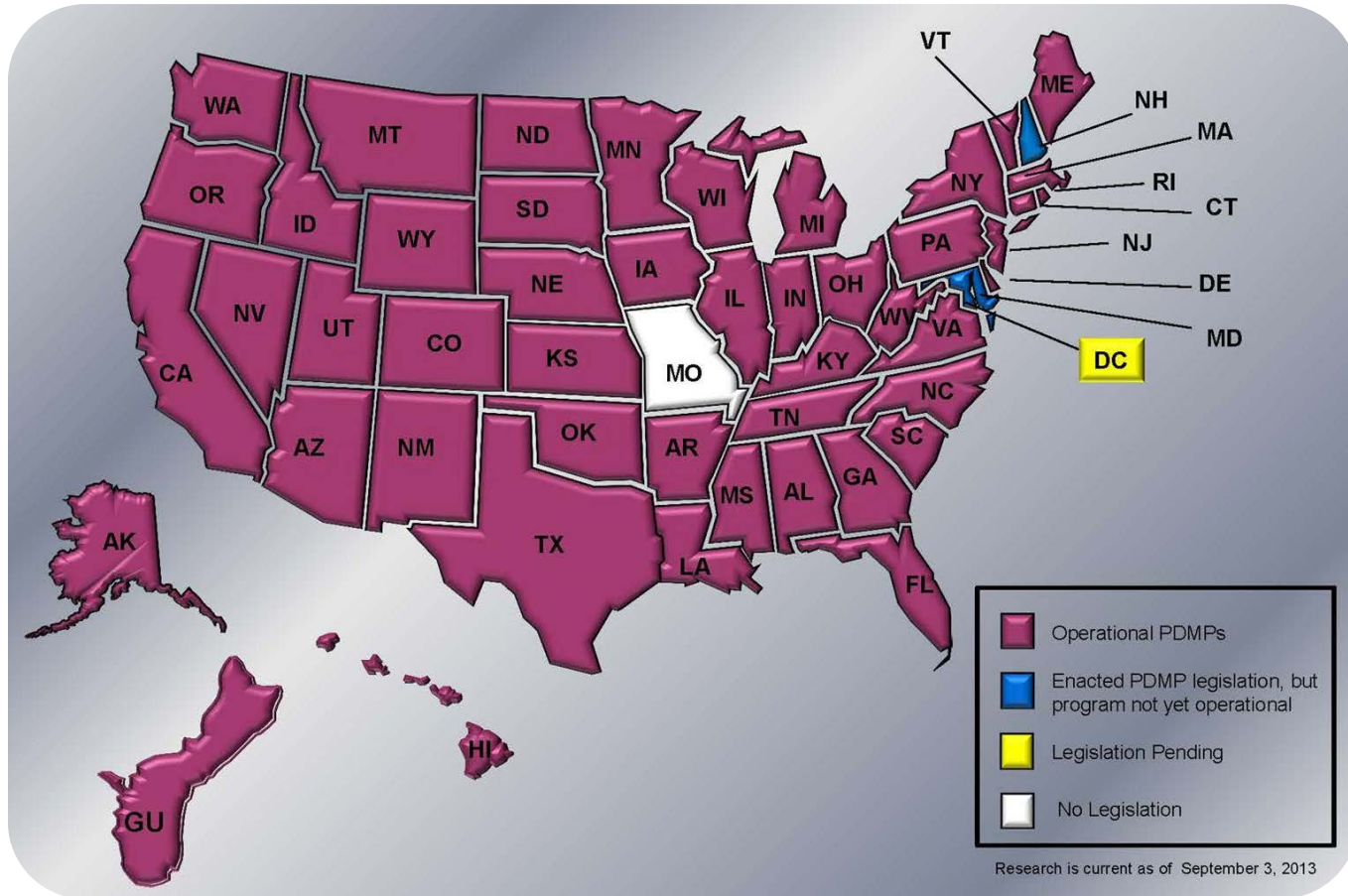


# Pivot to Prevention

- ❑ Prescription Drug Monitoring Programs (PDMPs)
- ❑ Patient Review & Restriction Programs
- ❑ Laws/Regulations/Policies
- ❑ Insurers & Pharmacy Benefit Managers (PBM)
- ❑ Clinical Guidelines



# Prescription Drug Monitoring Programs (PDMPs)



Source: Alliance of States with Prescription Monitoring Programs

# Patient Review and Restriction Programs (aka “Lock-In” Programs)

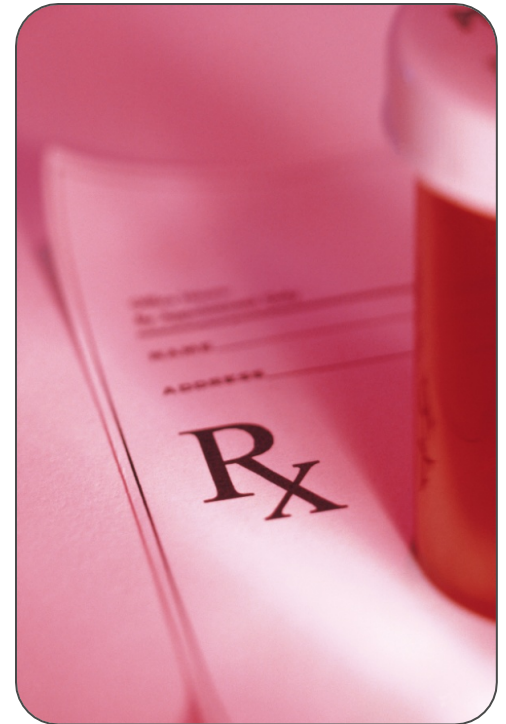


- ❑ **APPLICATION**: Patients with inappropriate use of controlled substances
- ❑ **STRATEGY**: 1 prescriber and 1 pharmacy for controlled substances
- ❑ **OUTCOME**: Improve coordination of care and ensure appropriate access for patients at high risk for overdose
- ❑ **IMPACT**: Cost savings as well as reductions in ED visits and numbers of providers and pharmacies



# Laws/Regulation/Policies

- ❑ **STATE RESPONSE**: Some states have enacted laws & policies aimed at reducing diversion, abuse & overdose
- ❑ **KEY AIM**: Strengthen health care provider accountability
- ❑ **PATIENT PROTECTION**: Safeguard access to treatment when implementing policies
- ❑ **GAP**: Rigorous evaluations to determine effectiveness and identify model components




# Insurer/Pharmacy Benefit Manager (PBM) Mechanisms

- ❑ Reimbursement incentives/disincentives
- ❑ Formulary development
- ❑ Quantity limits
- ❑ Step therapies/Prior Authorization
- ❑ Real-time claims analysis
- ❑ Retrospective claims review programs



# Clinical Guidelines




The Journal of Pain, Vol 10, No 2 (February), 2009; pp 113-130  
Available online at [www.sciencedirect.com](http://www.sciencedirect.com)

ELSEVIER

Opioid Treatment Guidelines

Clinical Guidelines for the Use of Chronic Opioid Therapy  
in Chronic Noncancer Pain




AGENCY MEDICAL DIRECTORS GROUP



**Interagency Guideline  
on Opioid Dosing for  
Chronic Non-cancer Pain:**

*An educational aid to improve  
care and safety with opioid therapy*

**2010 Update**



**City Health Information**

December 2011 The New York City Department of Health and Mental Hygiene Vol. 30(4):23-30

**PREVENTING MISUSE OF PRESCRIPTION OPIOID DRUGS**

CHI goes paperless—  
see back for details

- ❑ Improve prescribing and treatment
- ❑ Basis for standard of accepted medical practice for purposes of licensure board actions
- ❑ Several consensus guidelines available
- ❑ Common themes among guidelines

# Conclusions



- ❑ **BURDEN**: Overdose deaths from prescription drugs have reached epidemic levels in the United States
- ❑ **KEY DRIVERS**: Defining the drivers of the epidemic are critical to effective solutions
- ❑ **SCOPE OF SOLUTION**: Multifaceted approach is needed. Recent successes promising
- ❑ **KNOWN EFFECTIVENESS**: Interventions must be evaluated to determine effectiveness and need for state-specific adaptation

# Thank You



**Len Paulozzi**  
**lbp4@cdc.gov**

The findings and conclusions in this report are those of the author and do not necessarily represent the views of the Centers for Disease Control and Prevention.