

The Opioid Epidemic

A National and State Public Health Perspective

Hank Weiss - Ph.D., M.P.H., M.S.
Injury and Violence Prevention



WISCONSIN DEPARTMENT
of HEALTH SERVICES

Wisconsin Society of Addiction Medicine Annual Conference, October 4, 2015



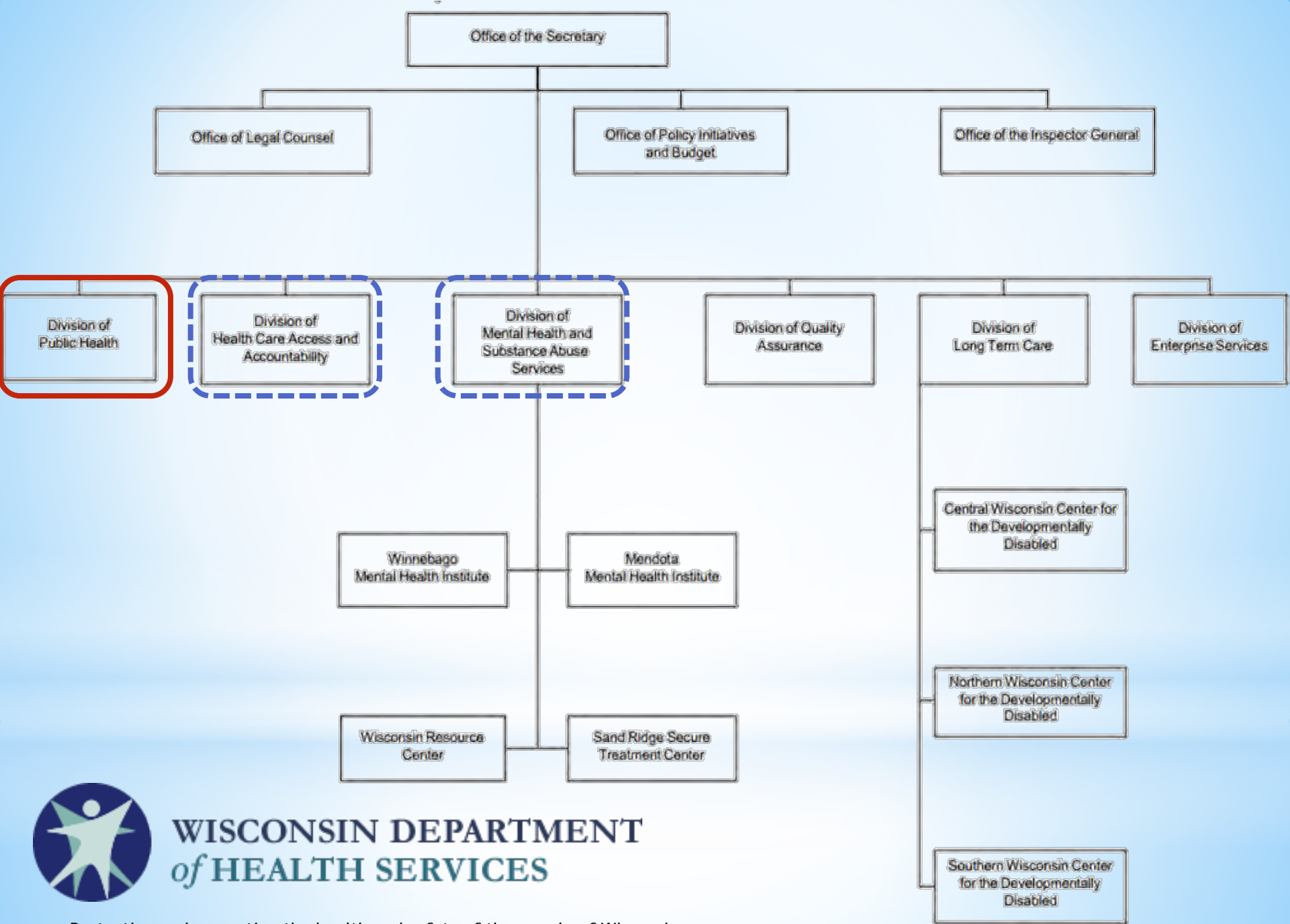
WISCONSIN DEPARTMENT
of **HEALTH SERVICES**

*Protecting and promoting the health and safety of the people
of Wisconsin*

I have no financial disclosures to make

1. Where am I coming from?
2. What is the issue?
3. Why is drug overdose a Public Health *injury* problem?
4. How did the epidemic happen?
5. What are the National and State impacts (epidemiology)?
6. What is being done to address it?

Today's Questions



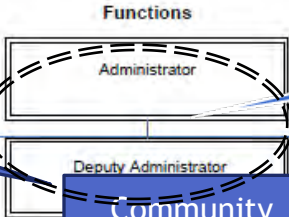
WISCONSIN DEPARTMENT
of HEALTH SERVICES

Department of Health Services

Division of Public Health

Karen McKeown, RN, MSN,
Administrator

Chuck Warzecha,
Deputy Admin



Community
Health
Promotion

Office of Health Informatics

Bureau of Communicable
and Emergency Response

Bureau of Operations

Bureau of Community
Health Promotion

Bureau of Environmental &
Occupational Health

Office of Policy &
Practice Alignment

Public Health Information Network (PHIN)
Wisconsin Electronic Disease Surveillance System (WEDSS)
Analysis, Visualization & Reporting (AVR)
Maps for Community Health Info Partnership Program (CHIPPS)

Epidemiology Coordination
Public Health Informatics
Infrastructure Improvement (PHIII)

eHealth Initiative
Execute eHealth Action Plan
Manage WISHIN HIE contract
Provide Federal HIT Coordination

Population Health
Workforce Reporting
State Health Plan Reporting
Behavioral Risk Factor Survey
Family Health Surveys
Pregnancy Risk Assessment Monitoring System (PRAMS)
Demographic Information / Population Estimates
Consumer Guide to Healthcare
WISH Web-based Data Query System
Statistical & Methodological Consultations

Vital Records
Implement new State Vital Records Information Systems (SVRIS)
Customer Service & Records Search Registration & Statistics
Special Records / Historical Preservation

Health Care Information
Physician Assessment
Cancer Reporting System (Registry)
Violent Death Reporting System

Communicable Diseases / Epidemiology
Anti-TB Medication Program
Disease Surveillance / Epidemiology
Emerging Pathogens Consultation
Food / Waterborne Outbreaks
Hepatitis A
Infection Control Consultation
Influenza Surveillance
International Health
Outbreak Investigations
Public Health Veterinary
State Laboratory of Disease
TB Elimination
Vectorborne Surveillance

HIV / AIDS
Case Management
Counseling & Testing
Drug Reimbursement
Early Intervention
Hepatitis C
HIV Prevention
Insurance Continuation
Partner Counseling & Referral
Ryan White Care Services
Surveillance / Epidemiology

Sexually Transmitted Diseases
Consultation / Technical Assistance
Partner Notification
Prevention
Surveillance / Epidemiology
Syphilis Elimination

Immunization
Adult Immunization
Education / Consultation / Technical Assistance
Hepatitis B
School Immunization
Education / Consultation / Technical Assistance
Hepatitis B
School Immunization
Vaccine for Children
Vaccine Preventable / Disease Surveillance
Vaccine Purchase / Distribution
WI Immunization Registry

Emergency Health Care and Preparedness Section
PHP, Pan Flu, EWIDS, CRI, RTDSS
Grants
Public Health Preparedness Plan
DPH Readiness
State Partner Coordination for PHP
Legal Authority
NIMS Compliance

Local Grants
PHP Contracts
Local Public Health Emergency Plan
Local Training & Competency
Local Exercise, Evaluation & Improvement
National Pharma Central Stockpile
Influenza Preparedness
Ambulance Provider Licensing
Basic / Adv / Life Support
Comm System
Data Collection
EMT Licensing
EMS for Children
First Responder / Defib Certification
Funding Assistance Program
Licensing Exams
Paramedic Licensing
Quality Assurance
Surveillance
Training Approval

Injury Prevention
Coordinator (1)
Rape Prev Ed (1)
NVDRS (1)
PDO Team (2)

Youth Policy
Healthy Birth Outcomes
Organ Donor Program
Nutrition & Physical Activity Section
Breastfeeding
Commodity Supplemental Food Program
CSHCN Nutrition Program
Emergency Food Assistance Program
Food Security
Food Stamp Nutrition Education
MCH Nutrition
Milwaukee County WIC Project
Nutrition & Physical Activity Program
Participant Fraud & Abuse
Senior Farmers' Market Nutrition Program
Vendor Fraud & Abuse
WIC Farmers' Market Nutrition Program
WIC Program
WIC Vendor Authorization

Family Health Section
Birth Defects Surveillance
Children w/Special Health Care Needs
Congenital Disorders
Genetics
Health Education & Systems
Sexual Assault Prevention
Injury Prevention
Injury Epidemiology & Consultation
Maternal / Perinatal, Adolescent Health
Preconceptional / Reproductive Health
Sexual Assault Prevention
Universal Newborn Hearing
Violent Death Reporting System
Chronic Disease Prev & Cancer Control
Oral Health
Chronic Disease Epidemiology
Diabetes Prevention Control Program
Cancer Control
Arthritis Control Program
Cardiovascular Disease Program
Prostate Cancer
WI Well Woman Program
Tobacco Prevention & Control Section
CDC Comp Tobacco Prevention & Control Cessation
Disparities Initiative
Media & Counter Marketing Campaign
WI WINS

Health Education & Systems
Sexual Assault Prevention
Injury Prevention
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Maternal / Perinatal, Adolescent Health
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Budget Section
Fiscal / Budget Mgmt
Grants Monitoring
Performance Based
Contract
DPHARRA Award
Contract Monitoring

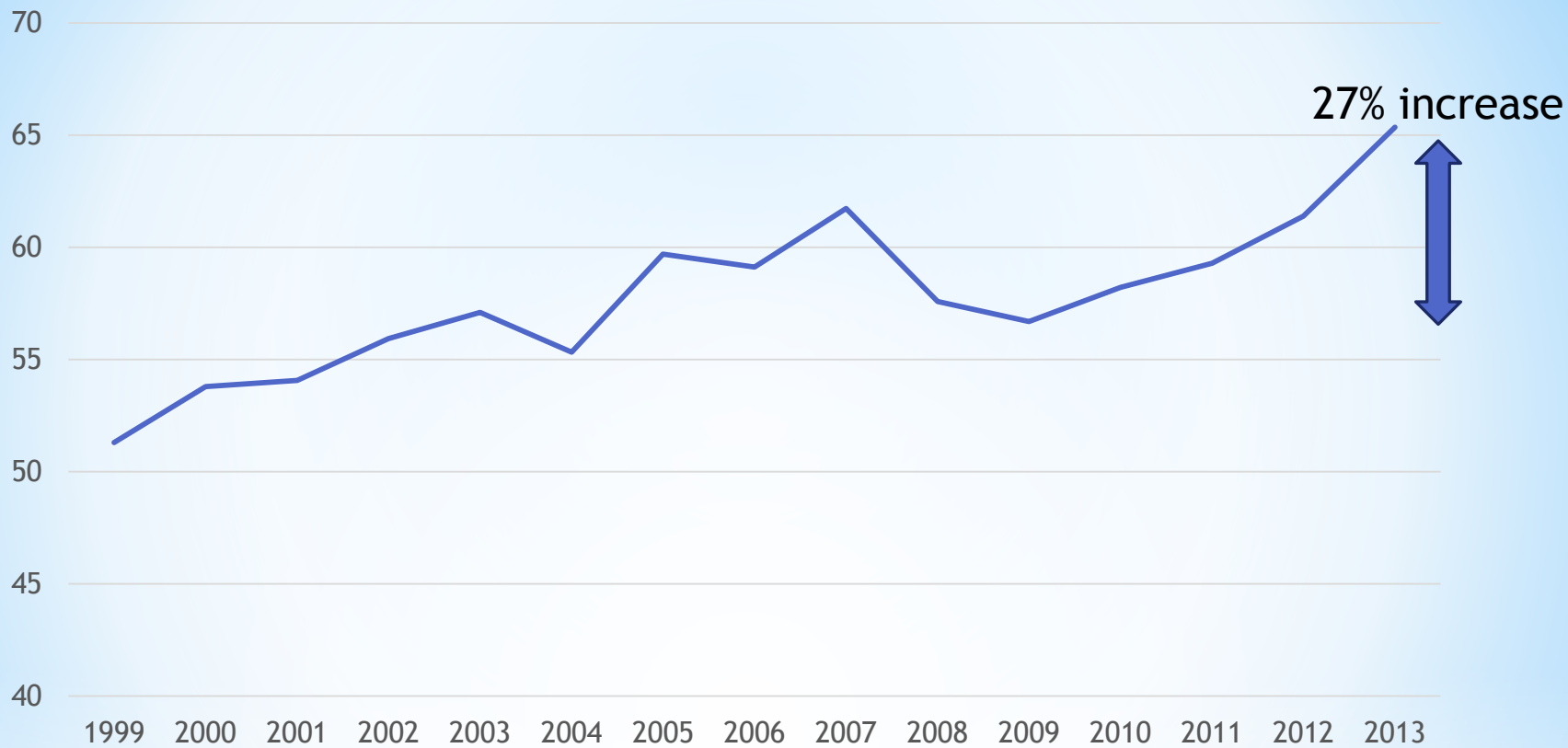
Communications
Public Health Info Webpage
Press Releases
Communication Review

Administration
Purchasing, Invoicing
Space
Telecommunications
Division Reception
Mail, Fleet

Environmental Health Capacity Building
Health Hazard Investigation
Indoor Air Quality
Fish Advisories
Toxicology
Radon Prevention
Algal Bloom / Beach Surveillance
Health Impact Assessment
Food Safety & Recreational License
Tattoo / Body Piercing Establishments
Tattoo / Body Piercing
Practitioner Licensing
Food Manager Certification
Restaurant and Food Safety Program
Hotel / Motel/
Tourist Room Houses Program
Water Recreation Program
Campground Program
Recreation and Educational Camps
Bed and Breakfast Program
Radiation Protection
Mammography Quality Assurance
Radiological Emergency Response
Radiological Emergency Preparedness
Radioactive Materials Program
Environmental Radiation Monitoring
X-Ray Registration
Asbestos & Lead (Pb)
Adult Lead Poisoning Prevention
Asbestos Training & Certification
Childhood Lead Poisoning Prevention
Lead / Asbestos Outreach & Education
Lead (Pb) Property Registry
Lead Training & Certification Competency

Regional Offices
Northeastern Reg'l Ofc
Northern Reg'l Ofc
Southeastern Reg'l Ofc
Southern Reg'l Office
Western Reg'l Office
Prevention Block Grant
Contract Monitoring
Facility Inspection
HFS 40 Local
Hlt Dept Review
Liaison to Local Agencies
Local Hlt Dept Support
Technical Assistance
Primary Care Office
Community Health Cntrs
Healthcare for the Homeless
HPSA
J-1 Waiver, NHSLS
Implementation
Primary Care
Policy
State Hlt Plan 2020
Minority Health Program
Minority Hlt
Leadership Council
Public Health Council
Public Health Nursing
Workforce Training & Competency
Quality Improvement / Accreditation

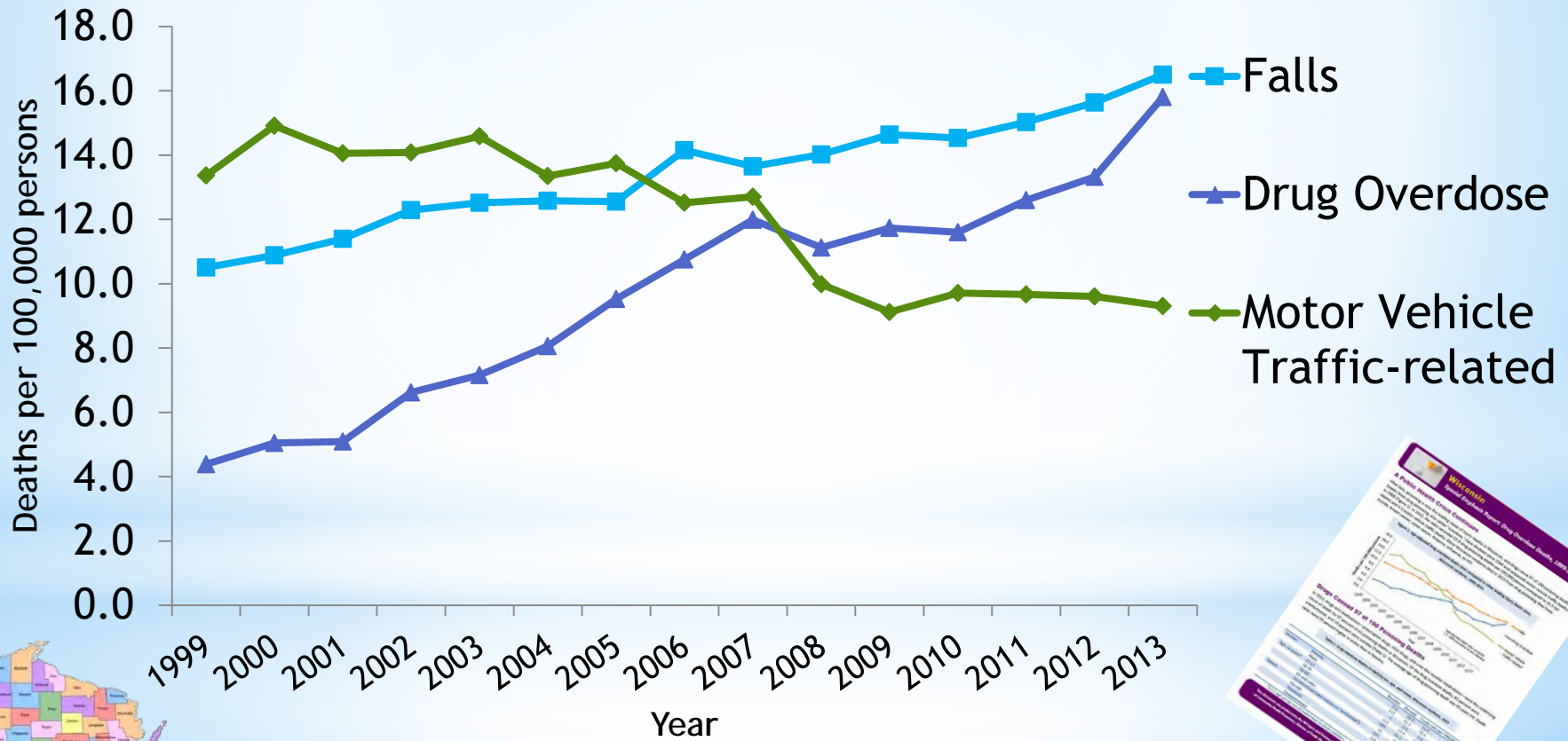
Family Health



Wisconsin Age-Adjusted Injury Death Rate, 1999-2013



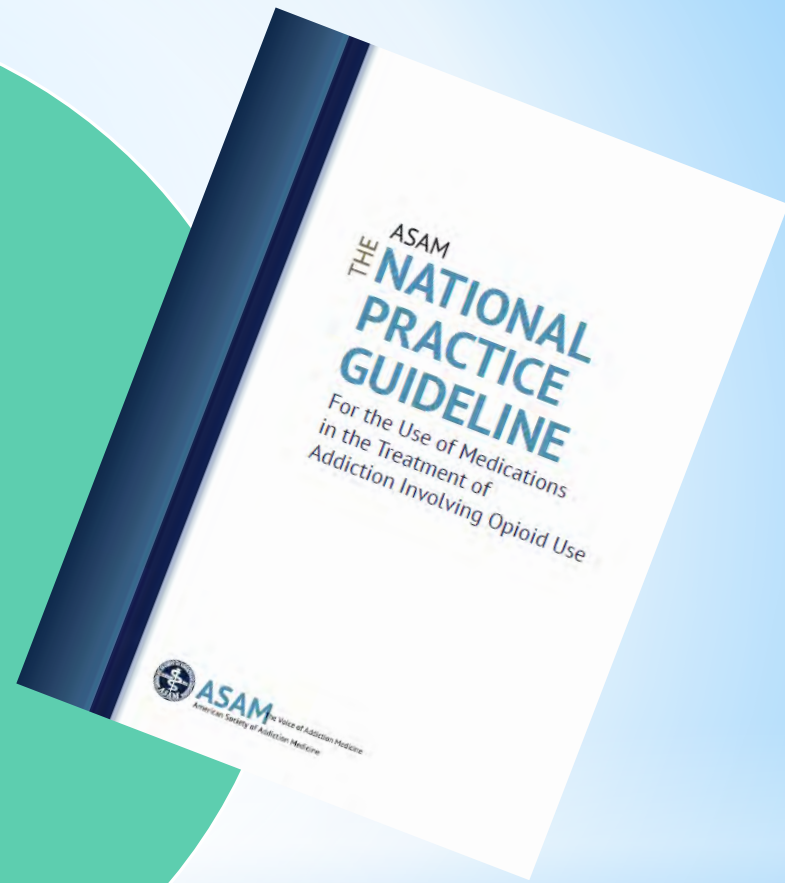
Leading Injury Death Rates, Wisconsin Residents, 1999-2013



Addiction

Treatment
Withdrawal
Overdose
Mental health
Family conflicts
Infectious disease
Short life span

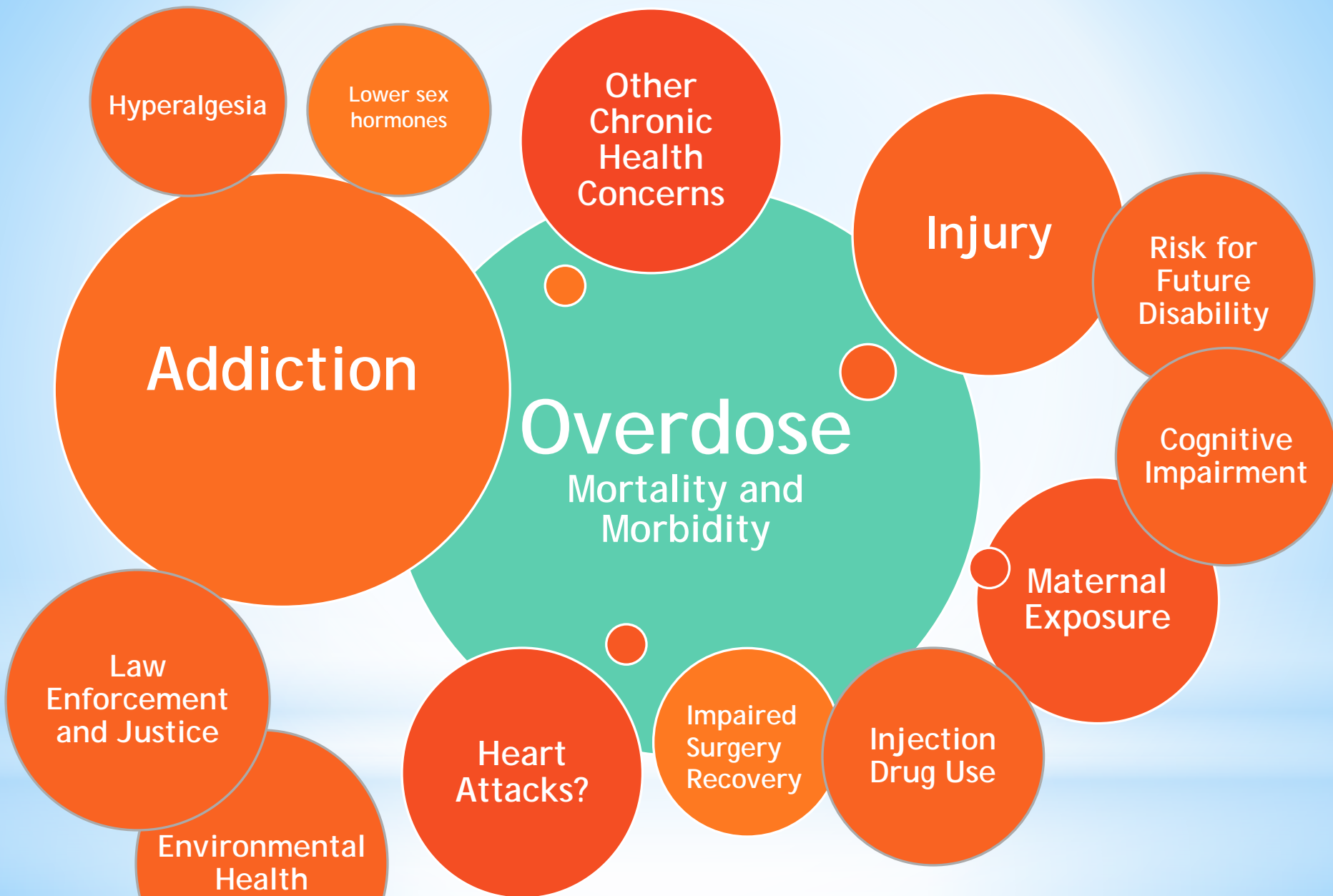
Crime
Incarceration



Your World



My World

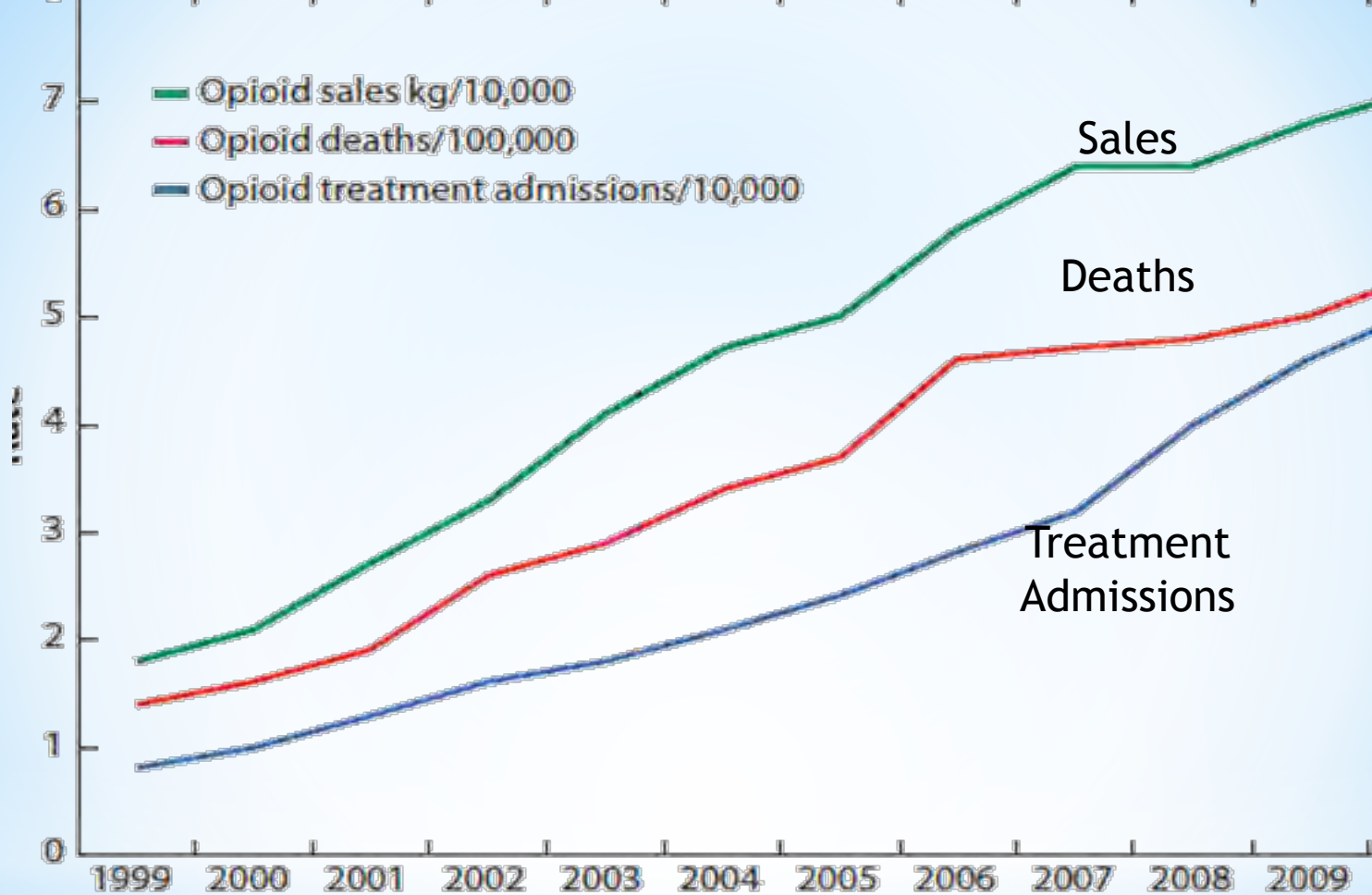


Opioid Harm Spectrum

Adapted from Teater, D. *The Psychological and Physical Side Effects of Pain Medications*

**We are in the midst of
the “worst drug
overdose epidemic in
[US] history” - CDC**

*Paulozzi LJ. The epidemiology of drug
overdoses in the United States (2010)
CDC, NCIPC*



Rates of Opioid Pain Reliever (OPR) sales, related unintentional overdose deaths, and addiction treatment admissions, 1999-2010



Source: CDC(Cent. Dis. Control Prev.). 2011. Vital signs: overdoses of prescription opioid pain relievers—United States, 1999-2008. MMWR 60:1487-92

Opioid Painkiller Prescribing

CDC
*Vital*signs™



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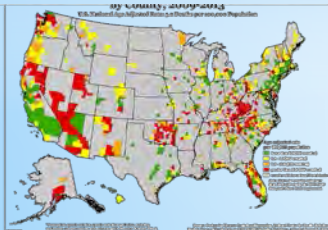
Each day, 46 people die from an overdose of prescription painkillers* in the US.



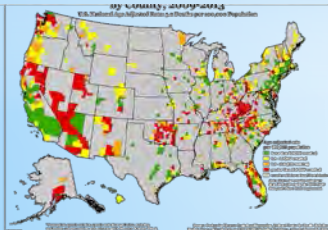
259 M

Health care providers wrote 259 million prescriptions for painkillers in 2012, enough for every American adult to have a bottle of pills.

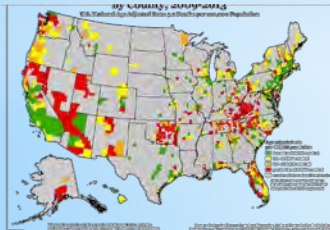
CDC Vital Statistics, July 2014



- Over 140,000 deaths
- Many more overdose admissions
- Spillover to heroin
- Millions addicted and/or dependent



How Did We Get Here?





Impact of Pain

- Under-treatment of some pain conditions recognized
- Applied principles for treating acute and cancer pain to chronic non-malignant pain
- Belief that those with pain were less likely to abuse opioids

Pain Management Initiatives

- By late 1990s ~20 states had passed laws, regulations or policies moving from near-prohibition of opioids to use without dosing guidance
- Laws based on weak science
- No ceiling on dose
- Common practice of use more if tolerance develops

Ill-informed Policies

OxyContin maker to pay \$600 million in fines

By Barry Meier

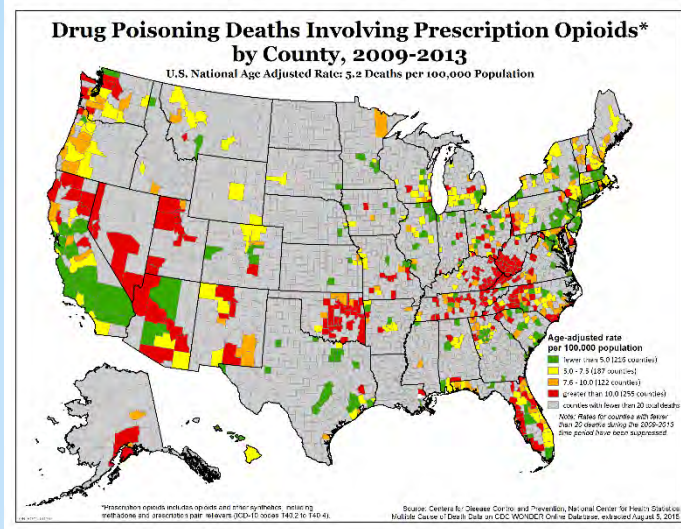
Published: Thursday, May 10, 2007

ABINGDON, Virginia — The company that makes the narcotic painkiller OxyContin and three current and former executives pleaded guilty Thursday in U.S. court here to criminal charges that they misled regulators, doctors and patients about the drug's risk of addiction and its potential to be abused.

Fraudulent Marketing

- Opioid use disorders are very prevalent in chronic pain opioid pain reliever patients:
 - Survey of 705 chronic pain patients treated in specialty and primary care outpatient centers found that 26% met criteria for opioid dependence, and 35% for opioid use disorder.
 - Review of back pain patients found drug abuse-related behaviors suggestive of addiction in up to 24% of patients on long-term opioid pain relievers.

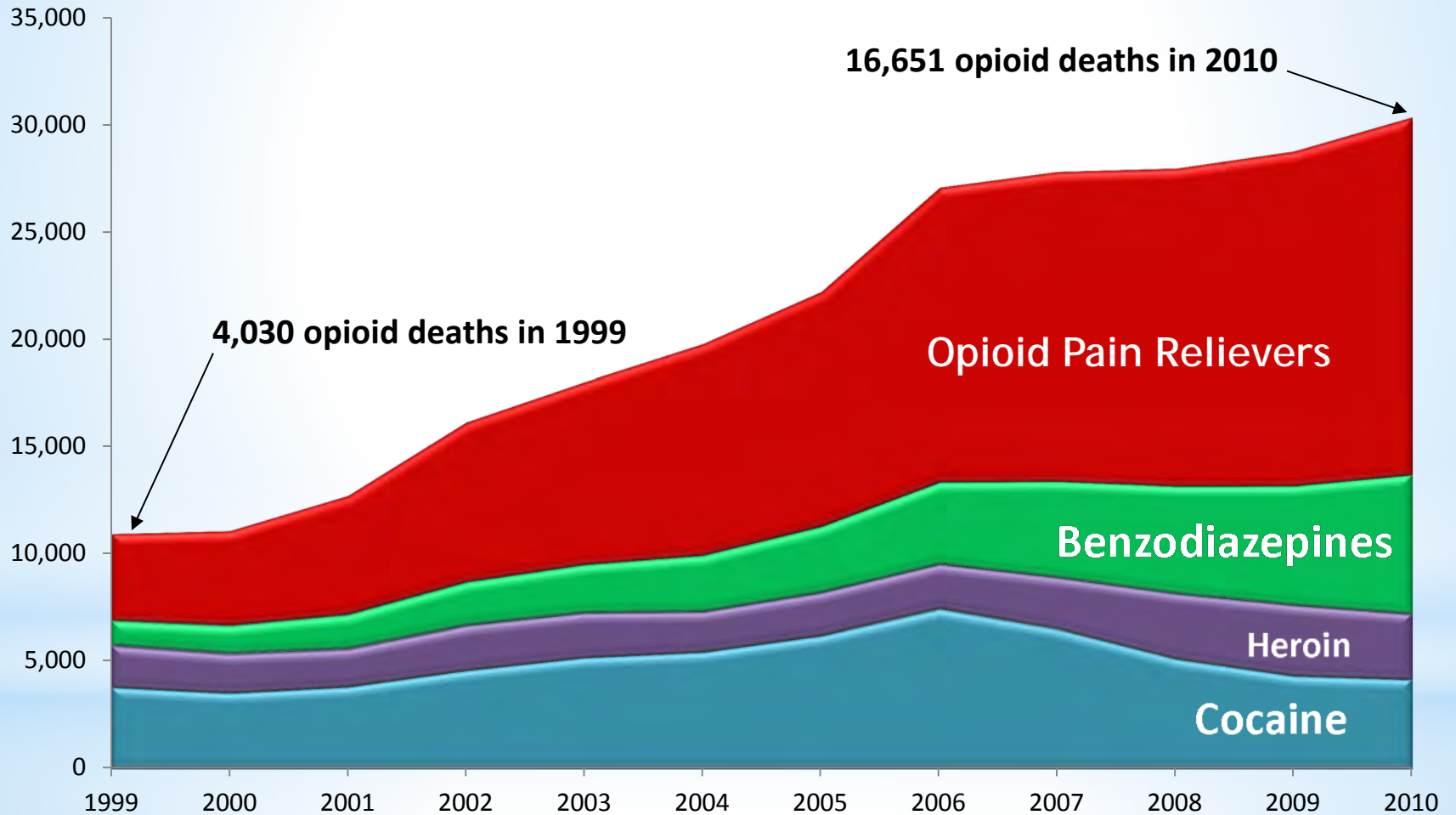
New Evidence



Epidemiology

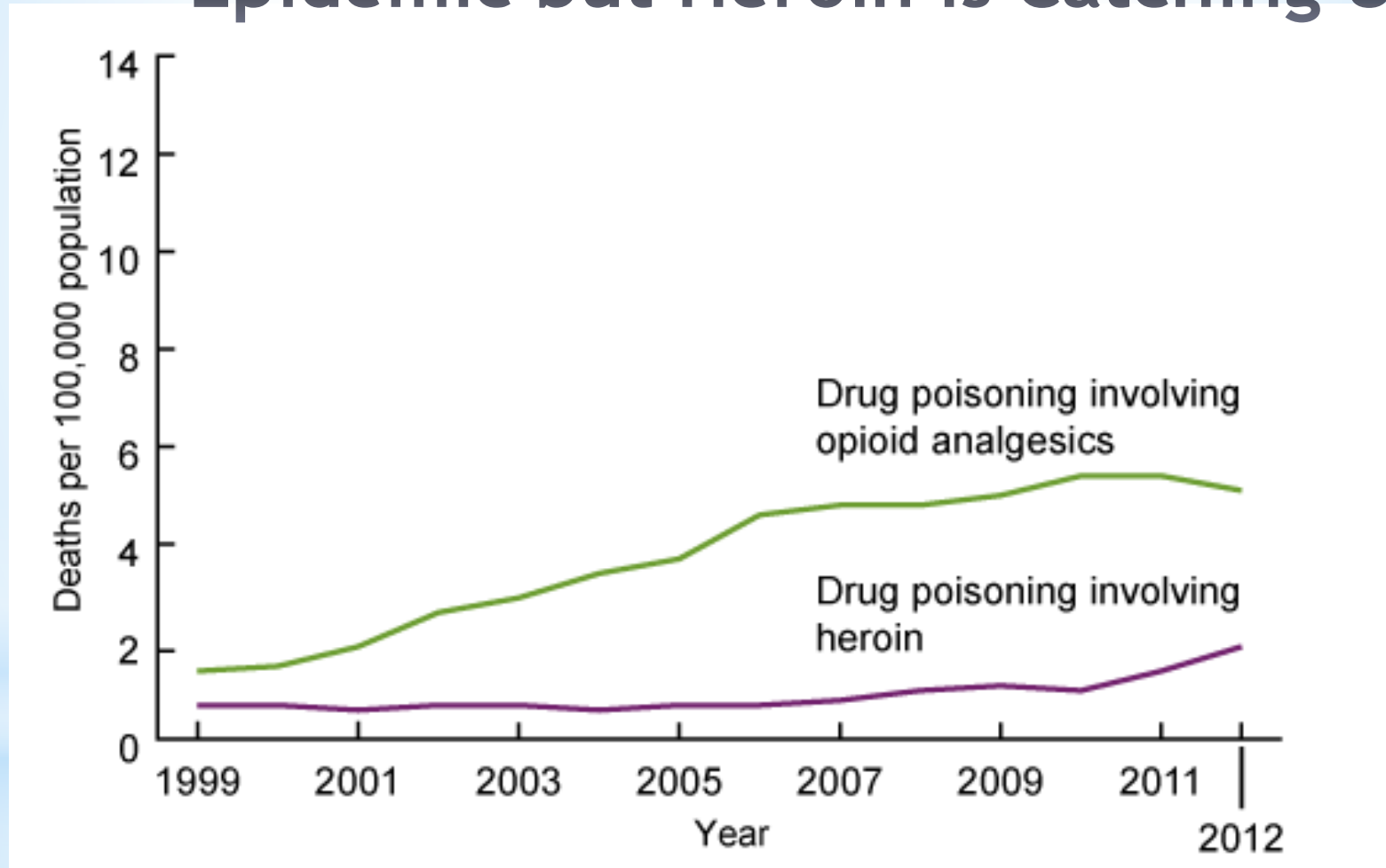
National

Opioid Pain Relievers Drive the Overdose Epidemic

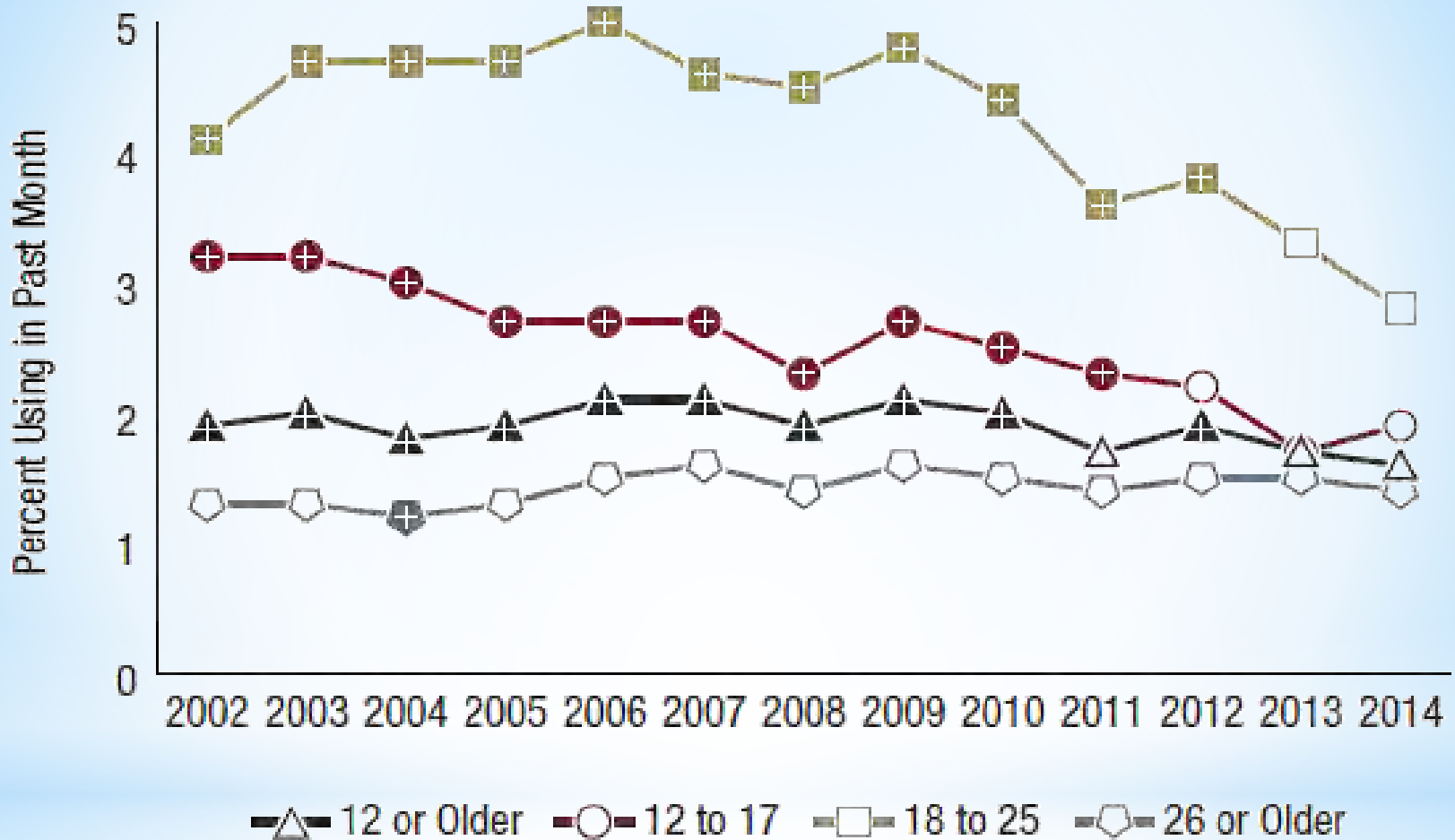


NCHS, National Vital Statistics System, 1999-2010

Opioid Pain Relievers Drive the Overdose Epidemic but Heroin is Catching Up



Trends in Drug-poisoning Deaths Involving Opioid Analgesics and Heroin: United States, 1999-2012. Division of Vital Statistics; Office of Analysis and Epidemiology NCHS

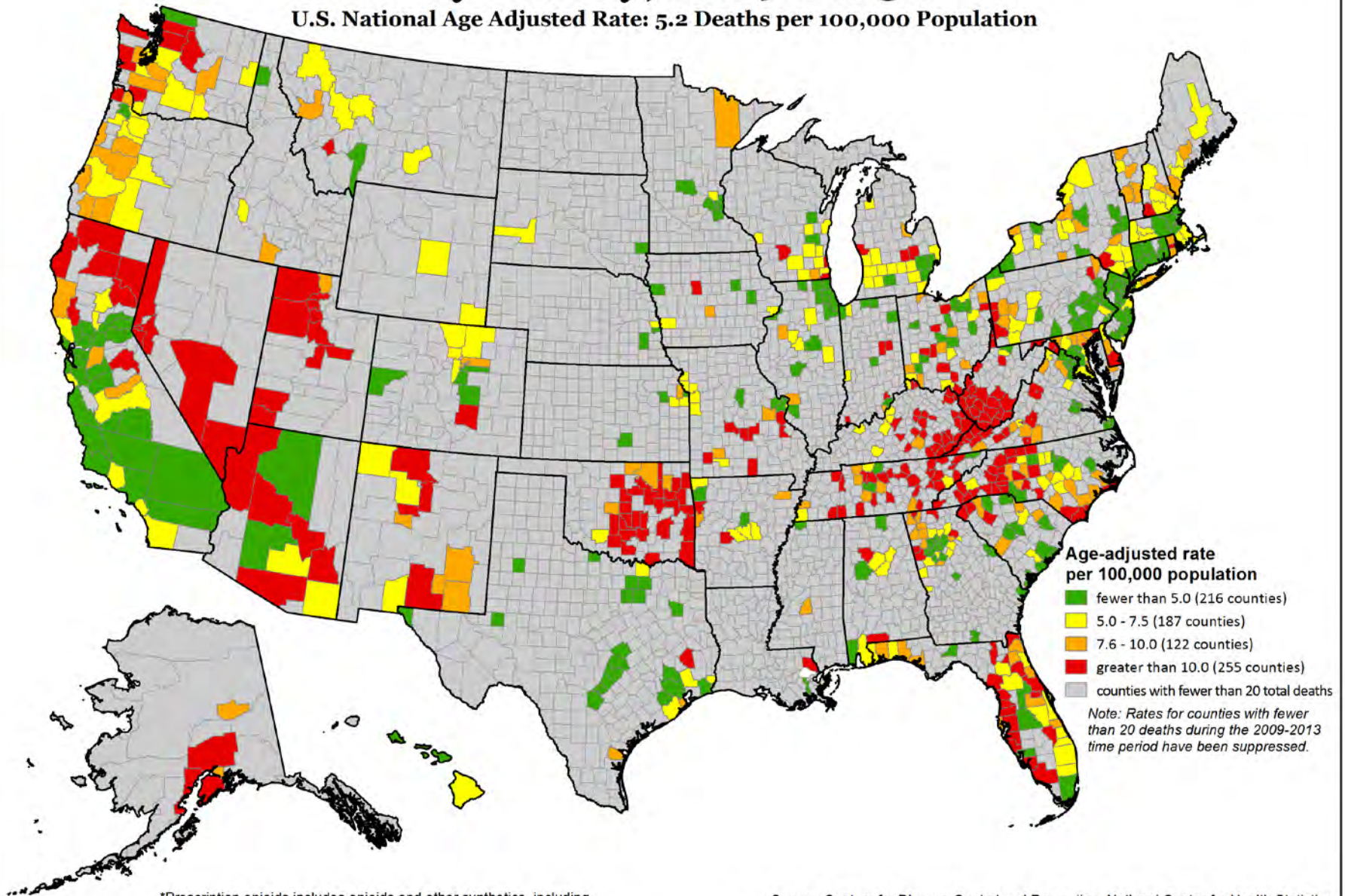


Past Month Nonmedical Use of Pain Relievers, Ages 12+, by Age Group: 2002-2014

“The disease of opioid addiction arises from repeated exposure to opioids and can occur both in individuals using opioids to relieve pain and in nonmedical users.”

Drug Poisoning Deaths Involving Prescription Opioids* by County, 2009-2013

U.S. National Age Adjusted Rate: 5.2 Deaths per 100,000 Population

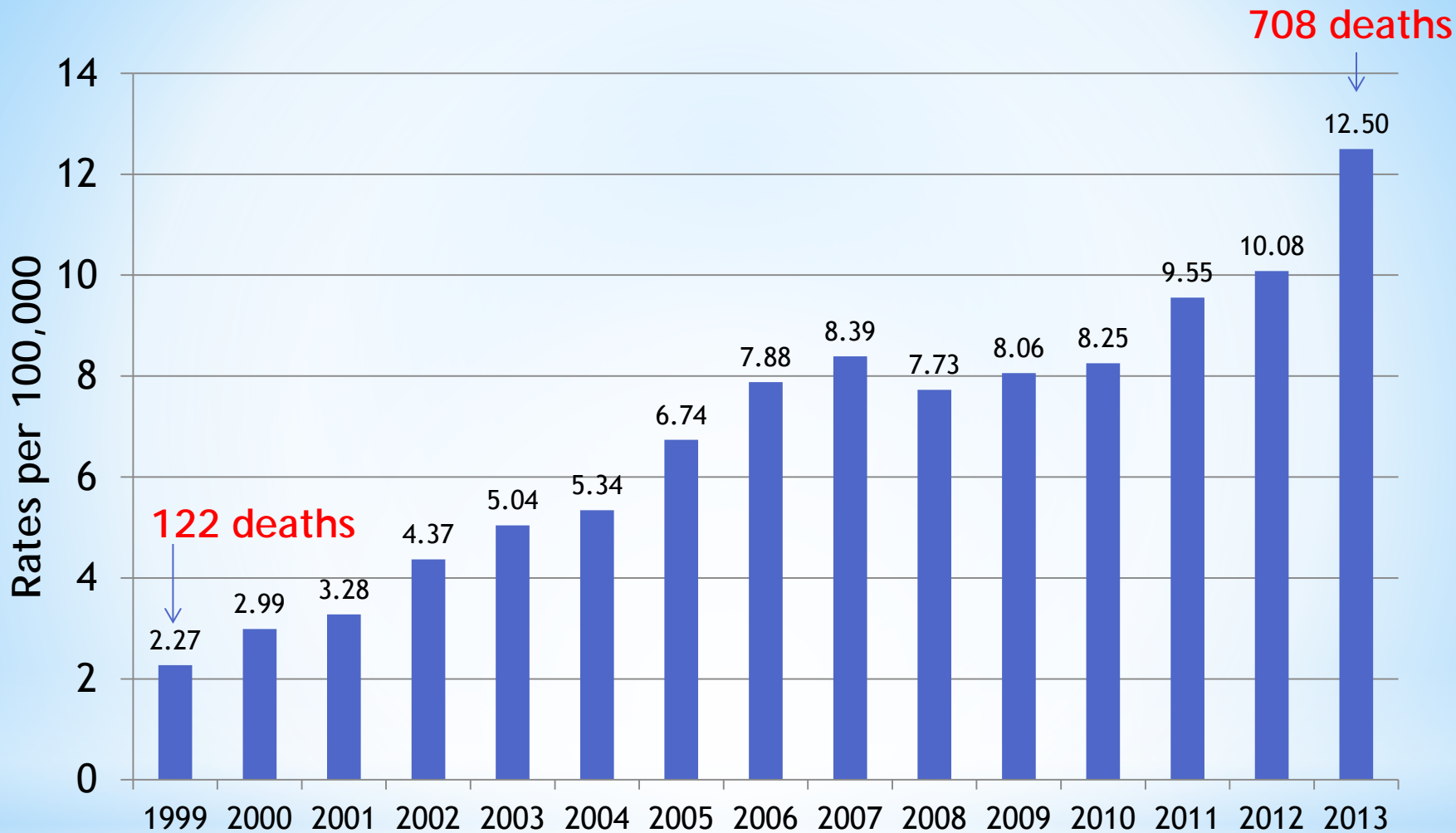


*Prescription opioids includes opioids and other synthetics, including methadone and prescription pain relievers (ICD-10 codes T40.2 to T40.4).

Source: Centers for Disease Control and Prevention, National Center for Health Statistics, Multiple Cause of Death Data on CDC WONDER Online Database, extracted August 5, 2015.

- Death Certificates (as of 2013)
- Hospital discharge and emergency department data
- Prescription Drug Monitoring Program (PDMP)
- Medical Examiner/Coroner data
- Emergency Department encounter data (syndromic)
- Wisconsin Ambulance Run Data System (WARDS)

Surveillance: Data Sources and Systems



1999-2013, Wisconsin Unintentional Drug Poisoning, Age-Adjusted Death Rates

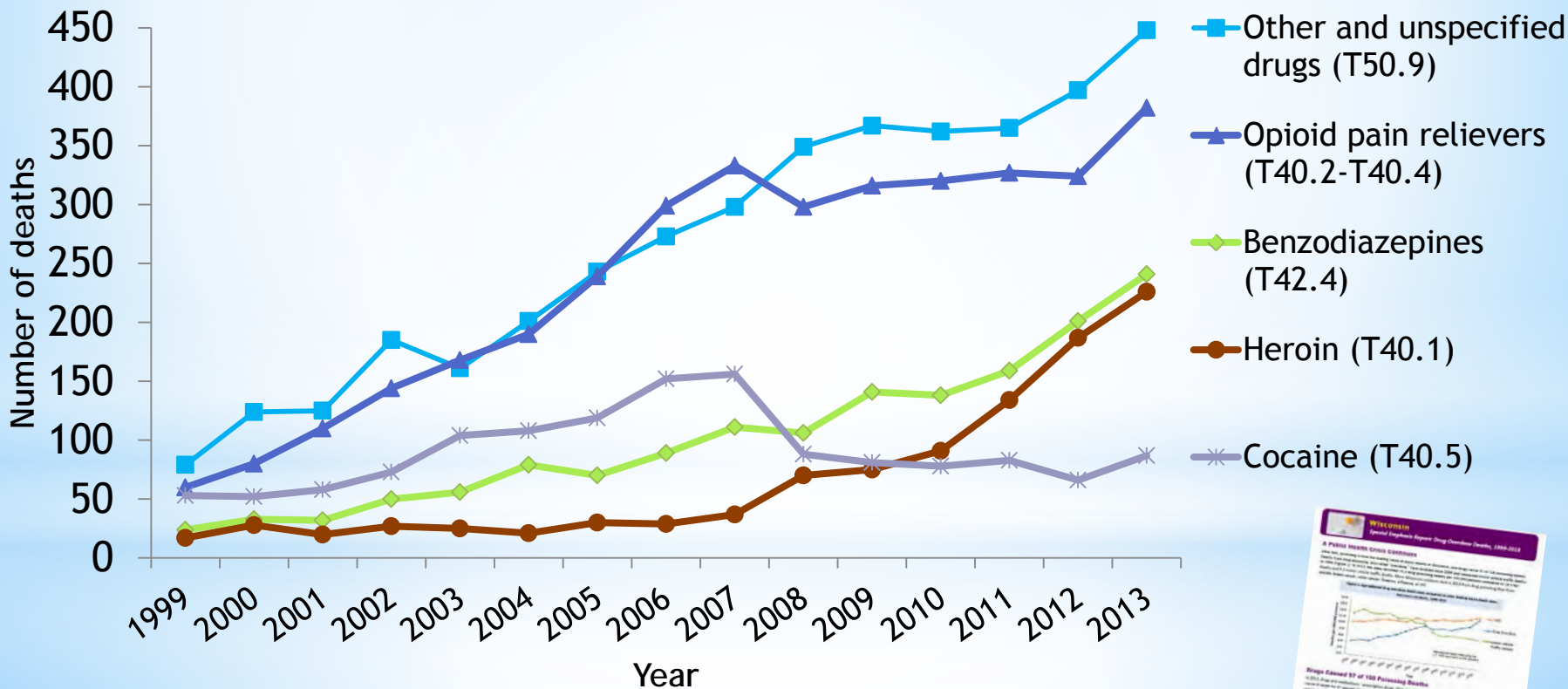
All Races, Both Sexes, All Ages - ICD-10 Codes: X40-X44



CDC WISQARS: National Center for Injury Prevention and Control, CDC

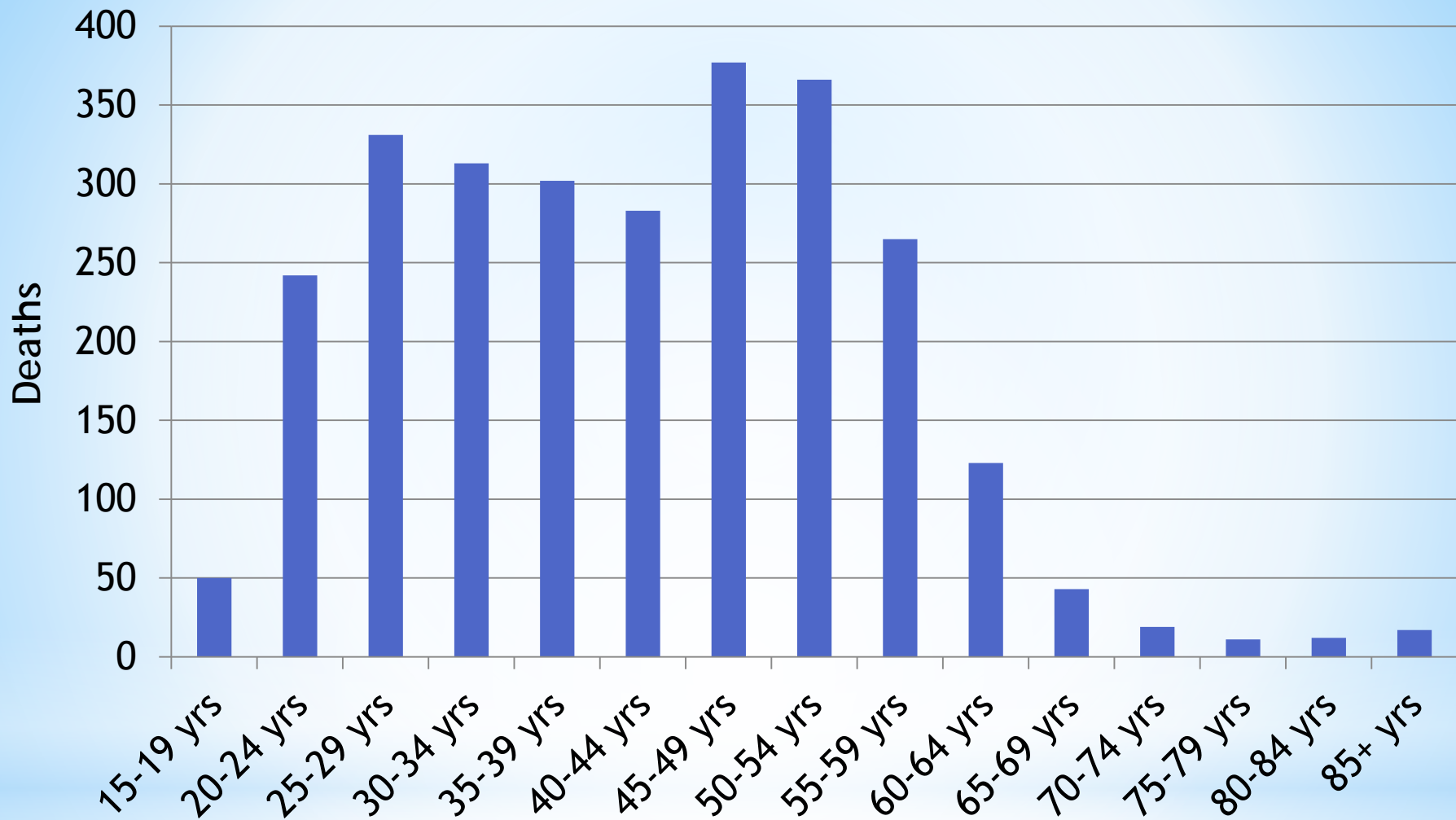
Data Source: NCHS Vital Statistics System for numbers of deaths. Bureau of Census for population estimates.

Number of drug overdose deaths involving opioid (morphine-like) pain relievers and other drugs, Wisconsin residents, 1999-2013



3.5X increase in Heroin, from 2009 (75) to 2014 (263)*



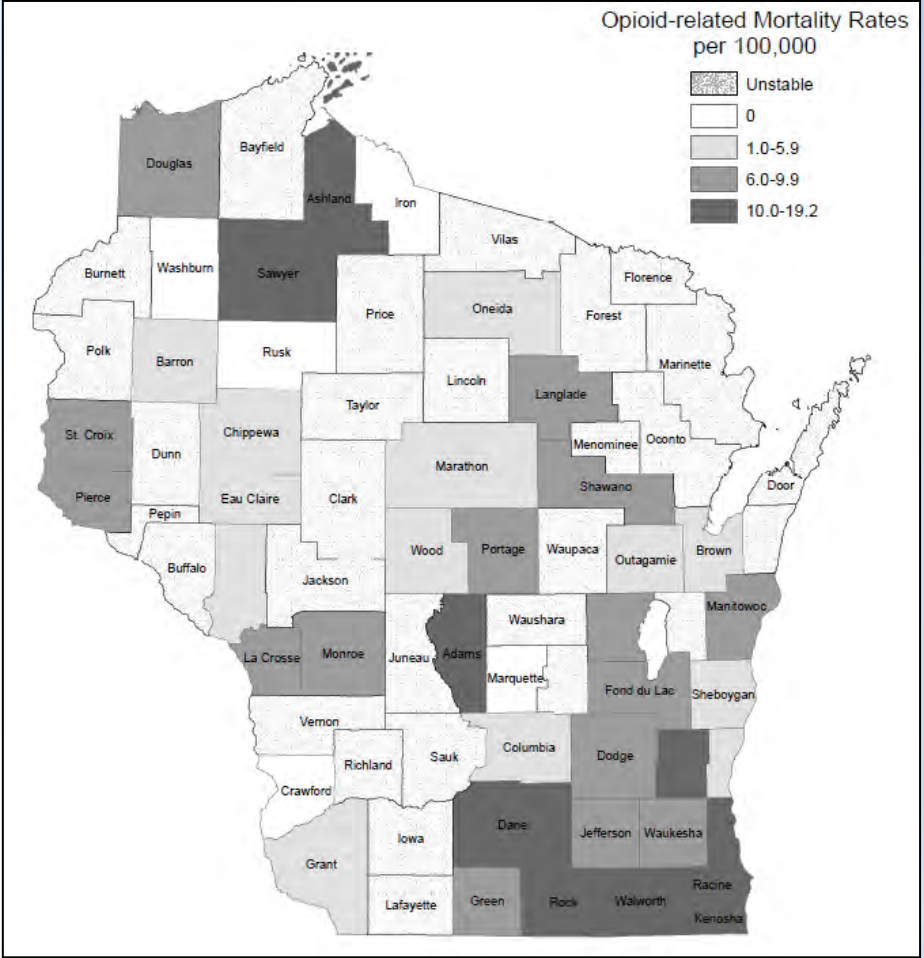
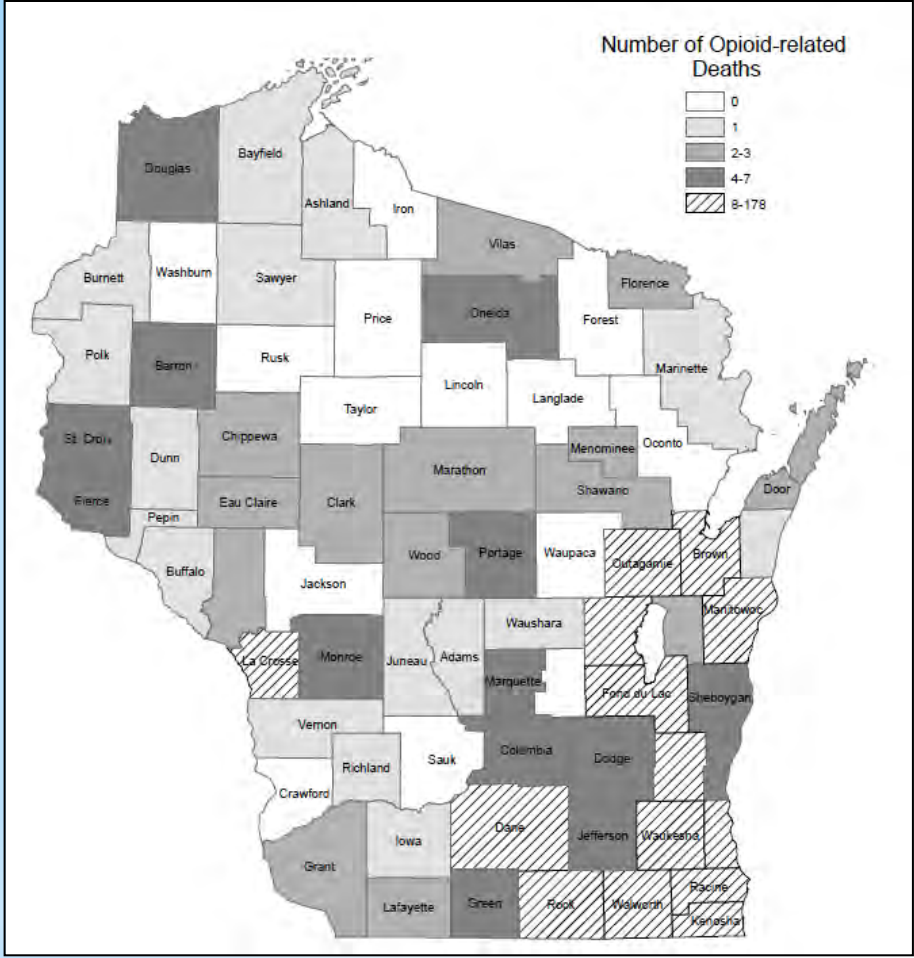


2009 - 2013, Wisconsin Unintentional Drug Poisoning Deaths by Age All Races, Both Sexes



CDC WISQARS: National Center for Injury Prevention and Control, CDC

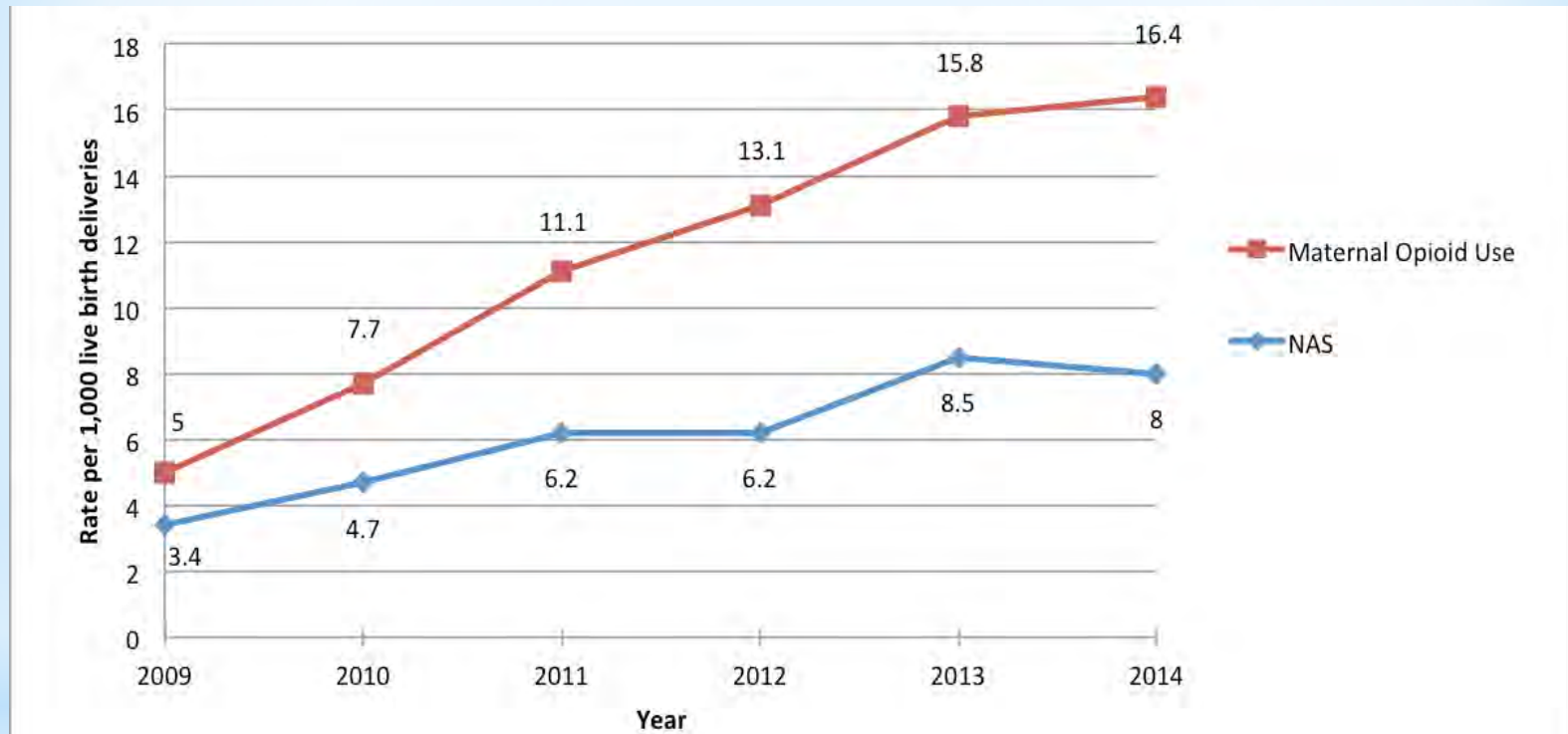
Data Source: NCHS Vital Statistics System for numbers of deaths. Bureau of Census for population estimates.



Opioid-related Deaths, by County, Wisconsin Residents, 2013

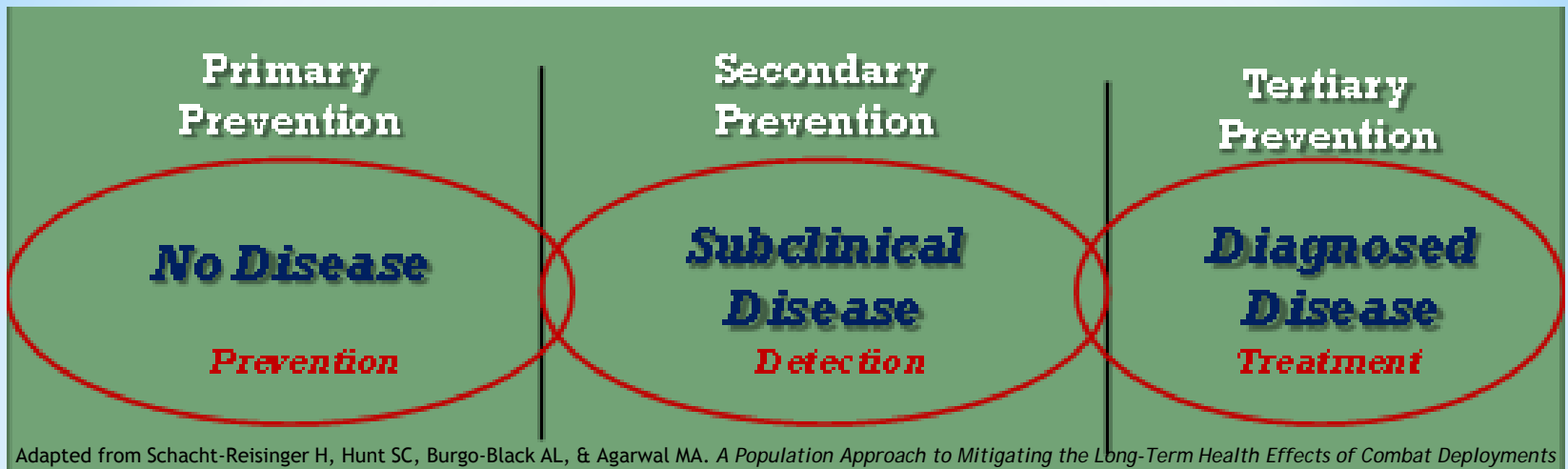
Opioid-related Death Rates by County, Wisconsin Residents, 2011-13

Rate of Deliveries with Maternal Opioid Use and Rate of Neonatal Abstinence Syndrome, Wisconsin 2009-2014



	2009	2010	2011	2012	2013	2014
Maternal Opioid Use	335	506	719	842	1001	1041
NAS	N=227	305	384	398	540	508

From: *Neonatal Abstinence Syndrome and Maternal Substance Use in Wisconsin, 2009-2014*. Karina A. Atwell, MD; Harold B. Weiss, PhD, MPH, MS; Crystal Gibson, MPH; Richard Miller, MS; Timothy E. Corden, MD



➤ **Primary Prevention:**

Preventing new cases of opioid addiction

➤ **Secondary Prevention:**

Identifying early cases of opioid addiction

➤ **Tertiary prevention:**

Ensuring access to effective addiction treatment

A Prescription for Prevention

Actions to Prevent Opioid Harm and Abuse

Education

- Prescriber education
- Community education
- Naloxone access

Tracking and Monitoring

- Prescription Drug Monitoring System (PDMP)
- Surveillance

Reversal

- Naloxone Access

Enforcement

- Identification verification at pharmacies
- Law enforcement training on prescription drug misuse and diversion

Medication Disposal

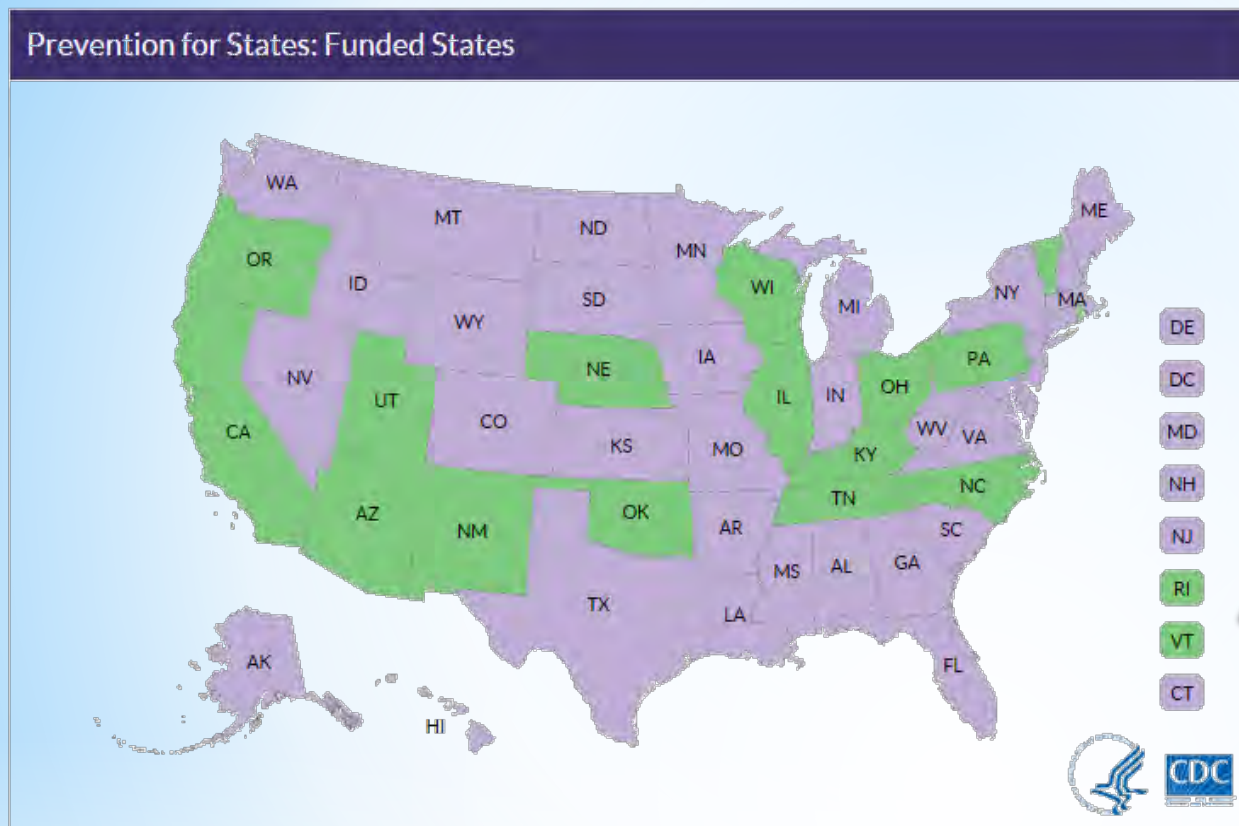
- Keeping medications safe at home
- Proper medication disposal guidelines consistent with FDA standards
- Community take-back programs

Treatment Options

- Treatment Centers
- Outpatient and residential treatment at state-funded treatment providers

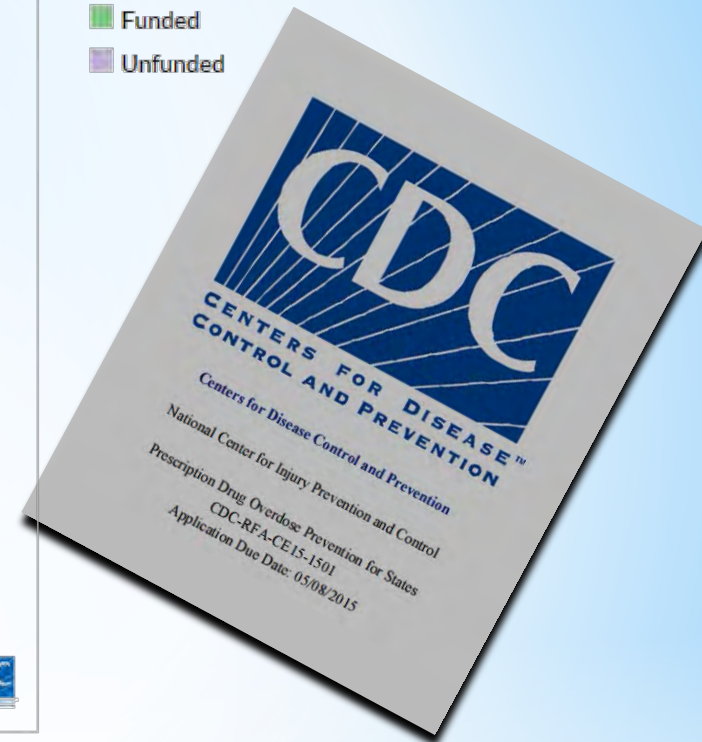
Policies

Supporting all sectors



Legend

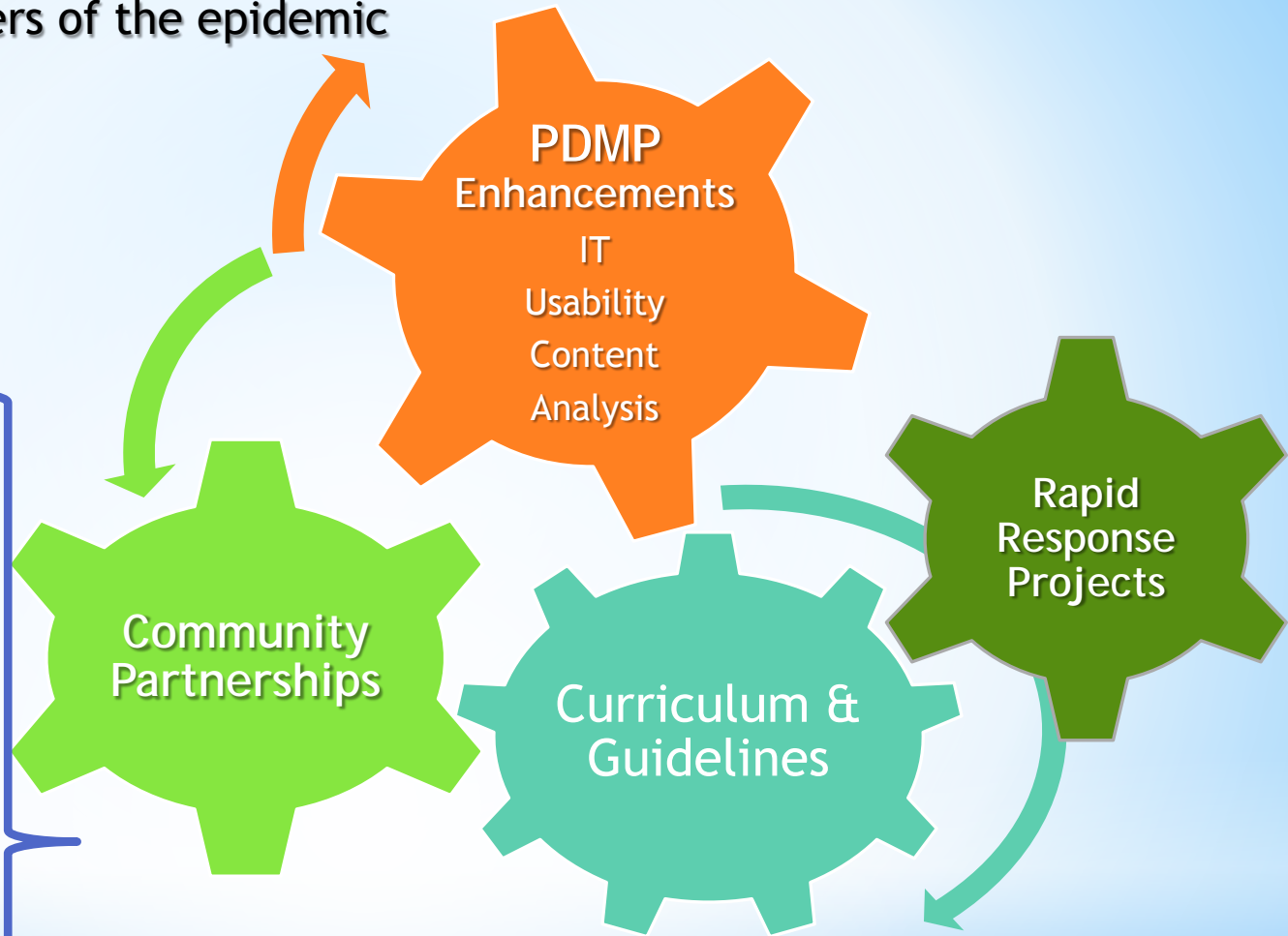
- Funded
- Unfunded



CDC RFA-CE15-1501: Prescription Drug Overdose Prevention for States

Addresses upstream drivers of the epidemic
4 years, ≈\$940,000/year

**Prescription
Drug
Overdose
Prevention:
*Opioid
Stewardship
in Wisconsin***

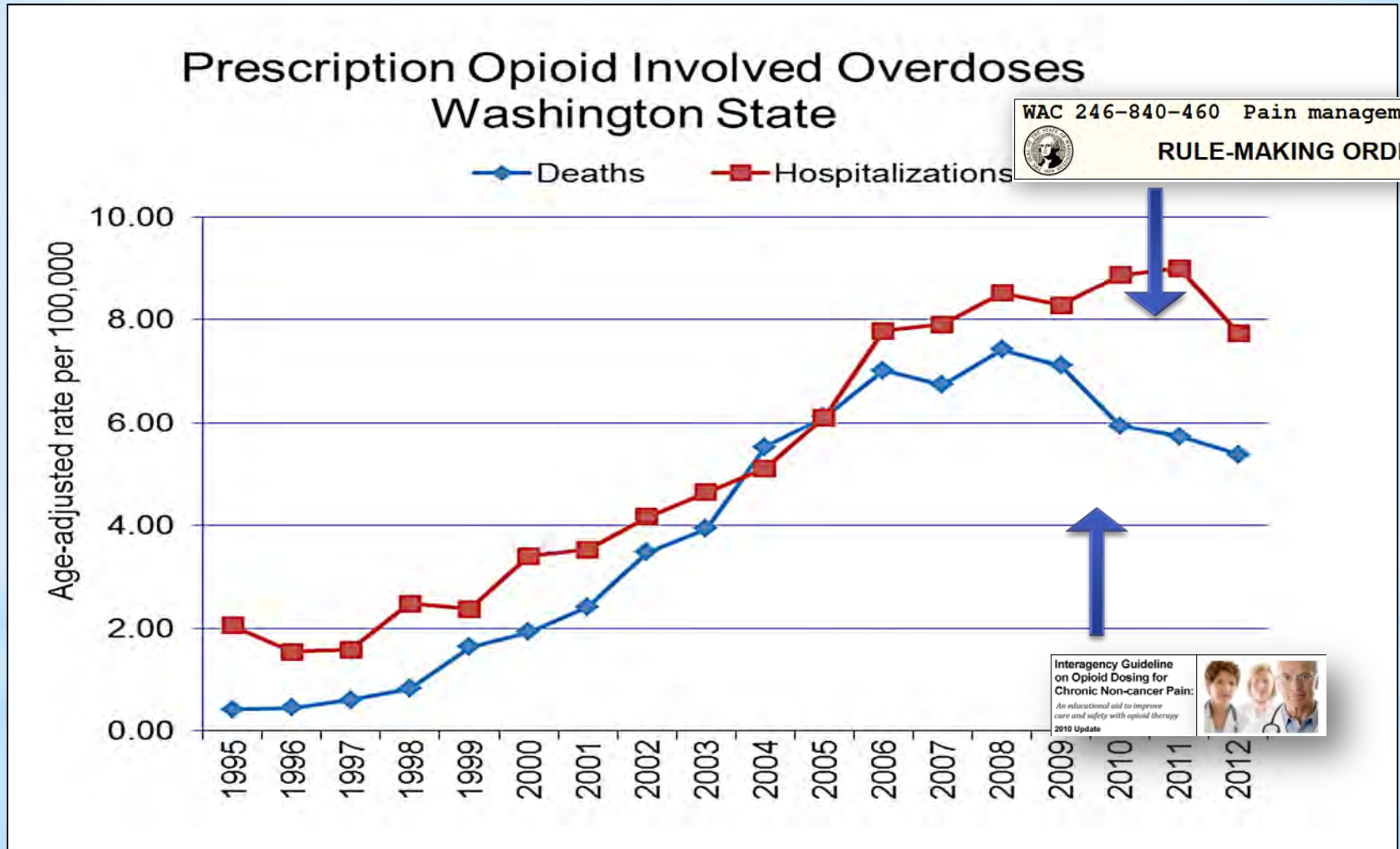


CDC Cooperative Agreement Wisconsin Program Overview

Avoidance	Stewardship	Overuse
Will not prescribe	Rational Pharmacology	Inattentive to dangers
Fear of oversight	Therapy tailored to individual risk	Inadequate monitoring
Inadequate understanding of addiction	Dynamic treatment, based on monitoring and outcomes	Excessive dosing
Exaggerated perception of risk	Acknowledge patient and community risks	Failure to recognize and respond to abuse

Opioid Stewardship

“Bending the Curve”—WA State First with Decline in Opioid-Related Adverse Events



Gary Franklin, University of Washington - Original Source: Jennifer Sabel Ph.D., Washington State Department of Health, 2014

Click for video



A Coordinated Response

Madison/Dane County Safe Community

Thank You!

Discussion

For More Information:

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