



# Opioids for Chronic Pain: Welcome and Introductions

September 3 , 2015  
South Portland, Maine



# Statement of Purpose

- ▶ This course will address the balance between providing optimal pain relief and preventing inappropriate use of opioid analgesics.

This course is held in collaboration with the

Maine Behavioral Health Workforce Development  
Collaborative

Through the joint providership of the

Postgraduate Institute for Medicine

and the

Substance Abuse and Mental Health Services  
Administration (SAMHSA)

U.S. Department of Health and Human Services (HHS)

The course is presented with financial  
and technical support from

**SAMHSA, HHS**

and

**JBS International, Inc.**

# Disclaimer

*The views, opinions, and content expressed herein are the views of the authors and do not necessarily reflect the official position of SAMHSA or HHS. Nothing in this document constitutes an indirect or direct endorsement by SAMHSA or HHS of any nonfederal entity's products, services, or policies, and any reference to a nonfederal entity's products, services, or policies should not be construed as such. No official support of or endorsement by SAMHSA or HHS for the opinions, resources, and medications described is intended to be or should be inferred. The information presented here in this document should not be considered medical advice and is not a substitute for individualized patient or client care and treatment decisions.*

# Accreditation Statements

This activity has been planned and implemented in accordance with the accreditation requirements and policies of the Accreditation Council for Continuing Medical Education (ACCME) through the joint providership of Postgraduate Institute for Medicine and SAMHSA. The Postgraduate Institute for Medicine is accredited by the ACCME to provide continuing medical education for physicians.

## Credit Designation

The Postgraduate Institute for Medicine designates this live activity for a maximum of 8.5 *AMA PRA Category 1 Credit(s)*<sup>™</sup>. Physicians should claim only the credit commensurate with the extent of their participation in the activity.

# Conflict Resolution Statement

Postgraduate Institute for Medicine (PIM) requires instructors, planners, managers and other individuals who are in a position to control the content of this activity to disclose any real or apparent conflict of interest (COI) they may have as related to the content of this activity. All identified COI are thoroughly vetted and resolved according to PIM policy. PIM is committed to providing its learners with high quality CME activities and related materials that promote improvements or quality in healthcare and not a specific proprietary business interest of a commercial interest.

The faculty reported the following financial relationships or relationships they or their spouse/life partner have with commercial interests related to the content of this continuing education activity:

- ▶ Ted Parran, MD, FACP—Nothing to disclose
- ▶ Stephen Wyatt, DO—Nothing to disclose

# Faculty

## **Ted Parran, JR, MD, FACP**

Isabel and Carter Wang Professor and Chair in Medical Education, and Addiction Medicine Fellowship Co-Director, Case Western Reserve University School of Medicine, Cleveland, Ohio

## **Stephen Wyatt, DO**

Medical Director of Addiction Medicine, Behavioral Health Service Line, Carolinas HealthCare System, Charlotte, NC

# Learning Objectives

On completing this course, participants should be able to:

1. Describe the nature of chronic pain and options for its treatment.
2. Select patients who are appropriate candidates for opioid management of chronic pain.

# Learning Objectives continued

3. Define risk factors for potential misuse, abuse, and diversion of prescribed opioid medications; recognize the importance of consistent screening for risk prior to prescribing; and outline a time-efficient method of conducting risk screening.
4. Follow an evidence-based protocol for starting patients on opioid analgesic therapy, including issues specific to safely initiating and titrating opioids.

# Learning Objectives continued

5. Monitor patients' response to opioids and address problems such as inadequate response to treatment.
6. Recognize problematic or aberrant drug-taking behaviors and be able to distinguish unintentional misuse, pseudoaddiction, or chemical coping from deliberate misuse, abuse, and diversion.

# Learning Objectives continued

7. Outline a time-efficient approach to clarify and intervene appropriately for aberrant drug-taking behaviors, including referral to specialized addiction treatment programs when indicated.

# How to Obtain Your CME Certificate

PIM supports Green CME by offering your Request for Credit online. If you wish to receive acknowledgment for completing this activity, please follow the steps below:

1. Go to CME University at: [www.cmeuniversity.com](http://www.cmeuniversity.com) and register or login
2. Once logged in, click on “**Find Post-test/Evaluation by Course**” at the top of the page
3. Type in “**10764**” in the box, and hit enter
4. Click on the activity title
5. Complete the online evaluation and obtain your CME certificate to download and/or print for your files.

Upon completion of the online evaluation form, you will have immediate access to a certificate of attendance to print or save for your files. You can save your certificate by selecting the “Save” option on the print screen.

For any questions relating to CME (physician) certification for this activity, please contact Postgraduate Institute for Medicine at: [information@pimed.com](mailto:information@pimed.com) or (303) 799-1930.



# Overview of the Course



# Reasons for the Course

- ▶ Use of all prescription opioids has increased dramatically.
- ▶ Problems associated with their use have also increased dramatically.
- ▶ Clinicians have the difficult task of balancing the relief of pain with the need to prevent adverse outcomes for their patients, for the community, and for themselves.

# Defining “Adverse Outcomes”

- ▶ Misuse, overuse, abuse, and addiction
- ▶ Overdose deaths and other accidents
- ▶ Diversion of medications into the illicit drug market
- ▶ Undertreatment of pain and unnecessary suffering
- ▶ Clinician frustration with and/or fear and avoidance of the pain management role



# Commonly Abused Prescription Medications

Ranking of classes of commonly abused medications in terms of frequency of abuse and public health impact:

1. Opioid analgesics
  - ▶ Hydrocodone/Oxycodone/Methadone
2. Benzodiazepines
  - ▶ Alprazolam/Diazepam/Clonazepam
3. Stimulants
  - ▶ Amphetamines/Methylphenidate



This course will focus on opioids, but the strategies presented here are useful in prescribing any controlled medication.

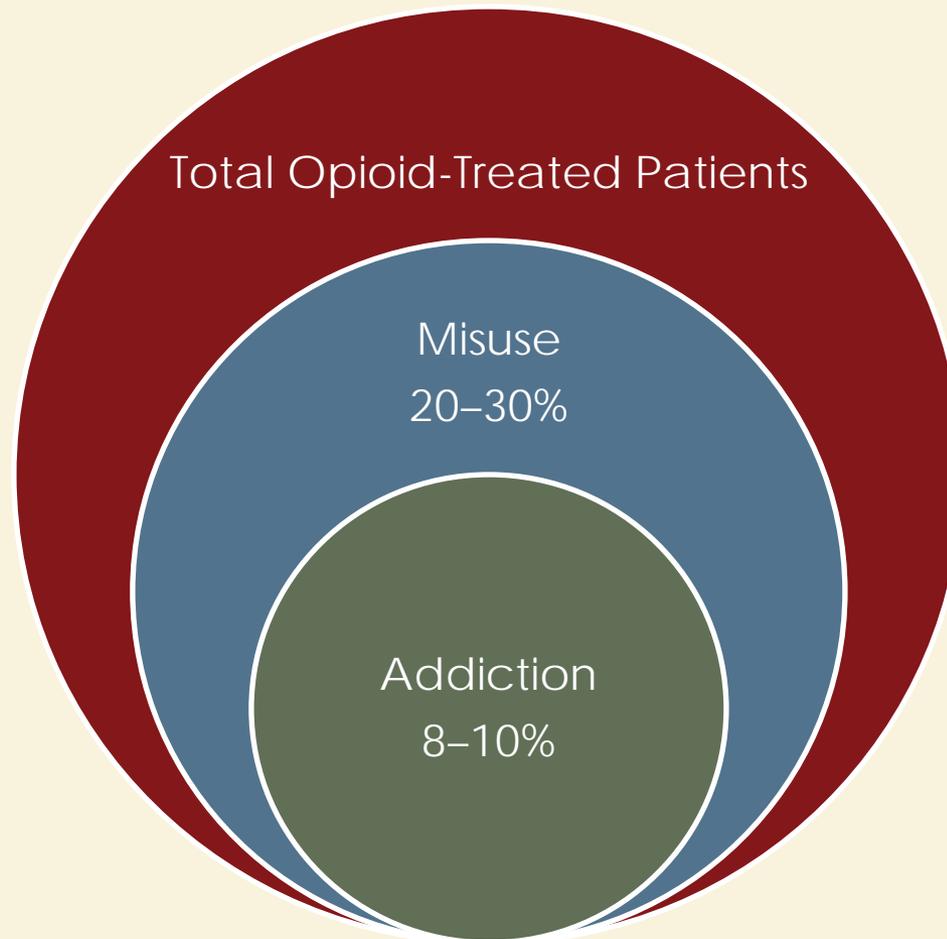
# Perspective on Relative Risk

- ▶ There is the potential for serious problems related to overuse, misuse, and abuse...

**but it is important to keep a *reasonable* clinical perspective.**

- ▶ Although aberrant use or misuse can be relatively common, actual abuse or addiction are fairly uncommon.

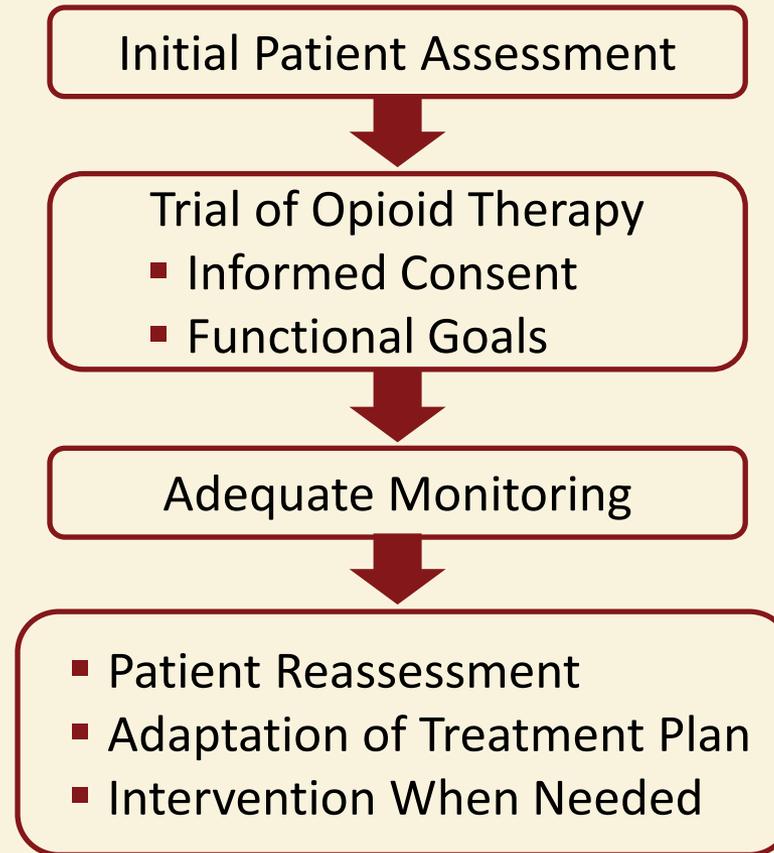
# Relative Frequencies of Aberrant Use, Abuse, and Addiction<sup>1</sup>



# Course Goals

1. Learn how to maintain a reasonable balance between providing appropriate pain management and minimizing the risk of misuse or abuse of opioids.
2. Learn how to identify misuse or abuse and intervene effectively when it occurs.

# Steps in the Rational Treatment of Chronic Pain<sup>2</sup>



# Basic Course Content

- ▶ Assessing patients and the role of opioids
  - Indications/contraindications
  - Risk assessment/risk stratification
- ▶ Using informed consent and treatment agreements to establish goals of an opioid trial
  - Pain management and functional improvement
  - Avoidance of problems/need to monitor safety
  - Opioid treatment as part of multimodal approach
- ▶ Using time-efficient approaches to patient monitoring
- ▶ Adapting treatment—intervening when needed—stopping prescribing

**Document, document, document!**

# Helping You Feel More Comfortable in the Role You Were Trained For



# References

- <sup>1</sup>Vowles, K. E., McEntee, M. L., Julnes, P. S., Frohe, T., Ney, J. P., & van der Goes, D. N. (2015). Rates of opioid misuse, abuse, and addiction in chronic pain: A systematic review and data synthesis. *Pain, 156*(4), 569-576.
- <sup>2</sup>Katz, N. (2007). *Patient level opioid risk management: A supplement to the PainEDU.org manual*. Newton, MA: Inflexxion, Inc. (used with permission of Dr. Nathaniel Katz.)



# Epidemiologic Data on Opioid Use: Changing Problems



# Goals<sup>1</sup>

To bridge the pain world and addiction world

## 1. Pain and pain treatment

- a. Chronic pain affects an estimated 100 million Americans (1/3 of the population).
- b. Complex physiologic, behavioral, and social phenomenon (FSMB)
- c. Increased prescribing of opioid analgesics (CDC)
- d. For some patients, opioids are the best treatment for chronic pain.
- e. For many more, there are likely to be more effective approaches.

## 2. Addiction and addiction treatment

- a. Neurobiological disease (SAMHSA/NIDA)
- b. Typically chronic or relapsing/remitting course (SAMHSA/NIDA)
- c. Often exists with other comorbid psychiatric conditions (SAMHSA/NIDA)
- d. Medication-assisted therapies are effective for opioid patients.

# Use of Opioids in the United States<sup>2</sup>

- ▶ Although there are many treatments for chronic pain, an estimated 5 to 8 million people use opioids long term.
- ▶ The number of opioid prescriptions for pain treatment grew from 76 million in 1991 to 219 million in 2011.
- ▶ Approximately 40 percent to 70 percent of those with chronic pain do not receive proper medical treatment.
- ▶ Prevalence of chronic pain and increasing use of opioids have created a “silent epidemic” of distress, disability, and danger.

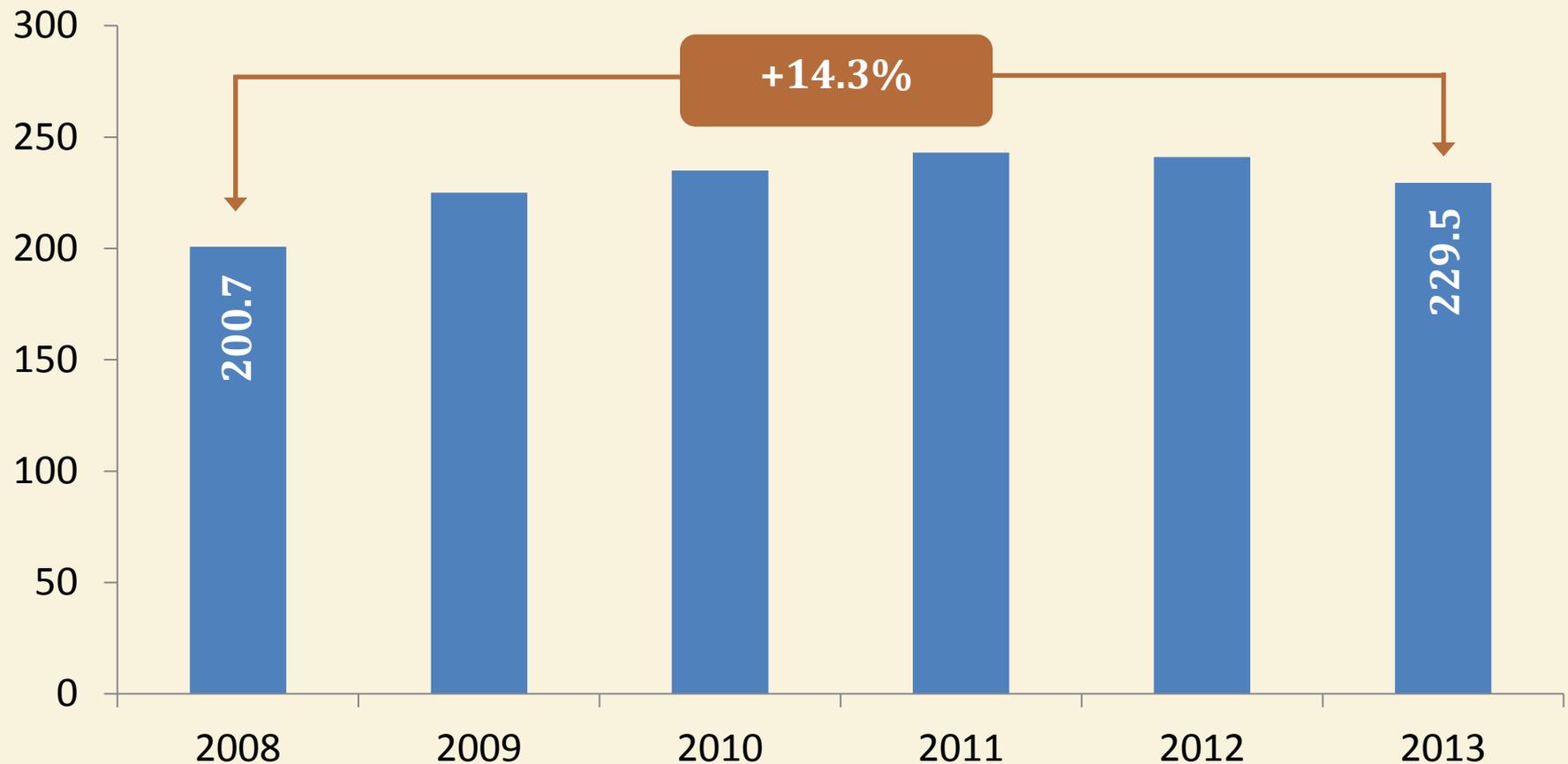
# Issues That Encourage Opioid Prescribing

- ▶ Twenty percent of the general population is significantly affected by chronic nonmalignant pain (CNMP).<sup>3, 4, 5</sup>
- ▶ A successful initiative to address cancer pain inspired efforts by pain management advocates to increase the use of opioids for the treatment of chronic nonmalignant pain.
- ▶ These efforts are based on the belief that patients with CNMP deserve pain relief as much as those with cancer, and that sustained pain relief is possible with stable doses of opioids.

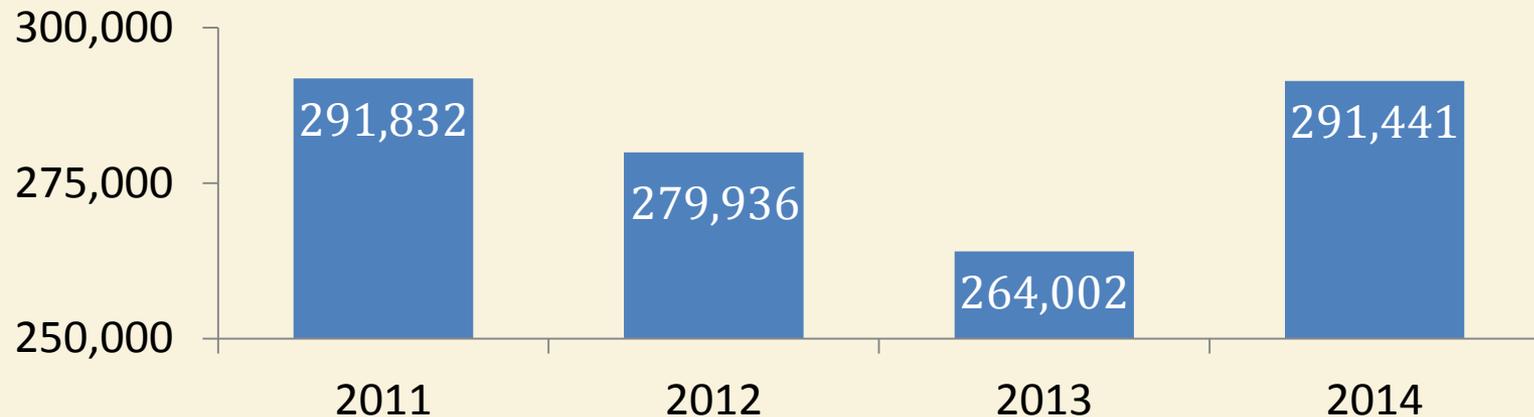
# The Good News and Bad News<sup>6</sup>

- ▶ Trends in demand, supply, and unintended consequences are declining (impact of actions by FDA and manufacturers, education and training for prescribing physicians, and overdose campaigns), but IDU risks are on the rise.
- ▶ More users are shifting from other opiates to heroin.
- ▶ Changes in user characteristics (young suburban heroin users and aging adults dependent on pain pills and benzodiazepines)—Treatment need versus capacity
- ▶ Unresolved problems in increasing accessibility to treatment

# Opioid Prescriptions See a Small Drop, 2012-2013<sup>7</sup>



# Opioid Prescriptions in Maine<sup>8</sup>



- We may expect opioid counts to continue to rise for some time because of the following:
  - Effective August 18, 2014, the Drug Enforcement Administration began classifying tramadol as a class IV drug; it was previously not scheduled.<sup>9</sup>
  - Effective October 31, 2014, the U.S. Department of Veterans Affairs began submitting data to the Prescription Monitoring Program on approximately 4,400 patients who had previously not been monitored.

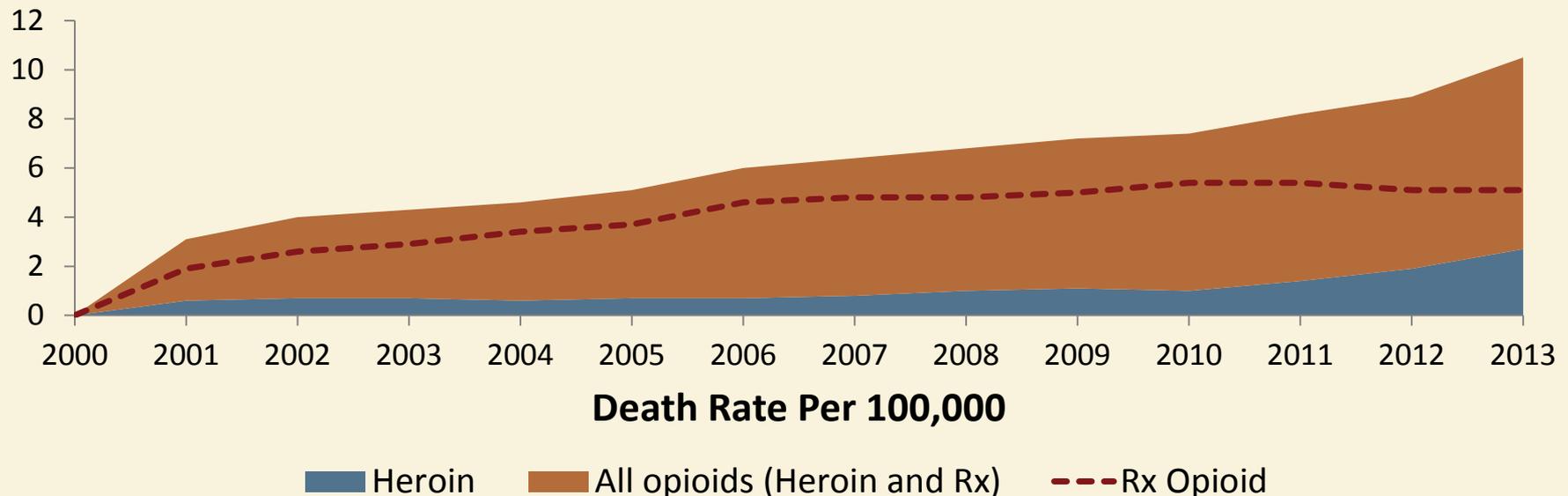
# Shifting Between Opioid Pills and Heroin<sup>10, 11</sup>

- ▶ Pollini et al. found that a high proportion of young heroin injectors reported problematic prescription-type opioid use before initiating heroin use.
- ▶ A 2002–2011 NSDUH study found that 80 percent who began heroin use in the past year (recent initiates) had previous nonmedical use of pain relievers. Only 1 percent of recent initiates reported heroin use prior to using pain relievers.
- ▶ Reasons for shifting from pain pills to heroin include difficulties converting the “hardened” extended-release pain pills into fine granules, which can be insufflated into a liquid and injected; some of these new pills turn into a gelatin when liquid is added, which precludes injection. Other reasons include difficulties obtaining pain pills as more recognition of the problem has resulted in decreased prescribing and the relatively cheap cost of heroin compared to pain pills.

# Increase in Heroin Overdose<sup>12</sup>

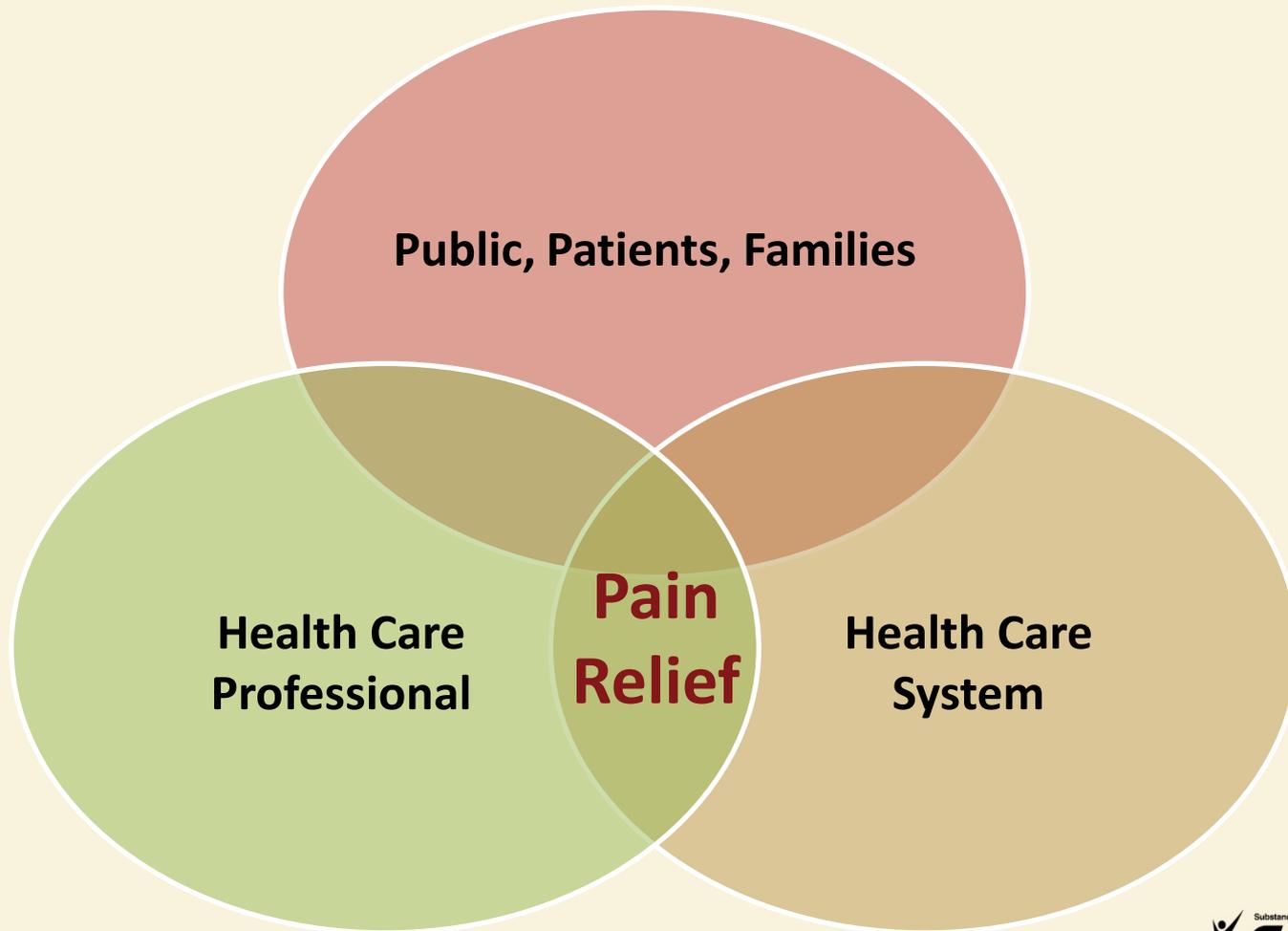
(death rate per 100,000 age adjusted)

- ▶ Death rates from heroin overdose are increasing rapidly as death rates from prescription opioids are leveling off.



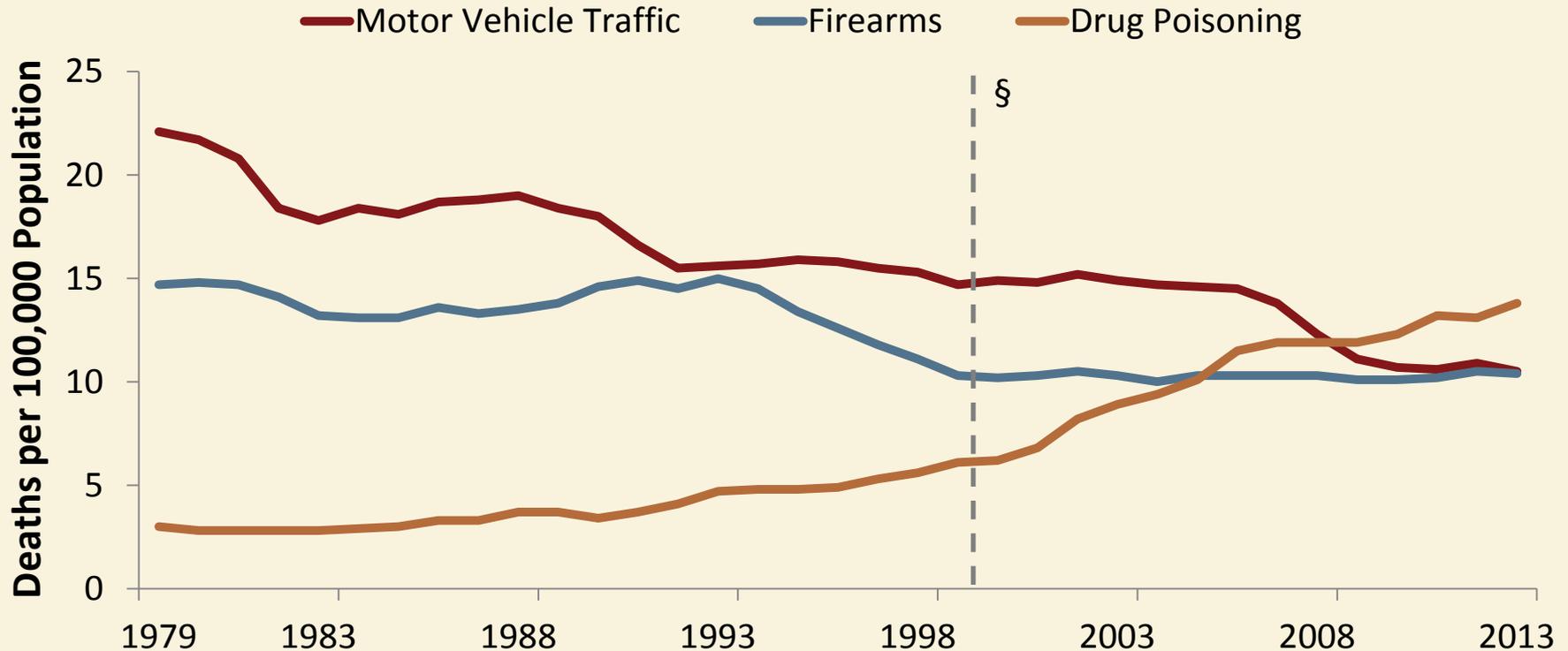
*Note: 2012 saw the first national drop in prescription opioid deaths since the 1990s. This reflects a similar drop in painkiller prescribing rates across the United States and is a promising trend in reversing this epidemic. Although later slides will demonstrate that the corresponding heroin overdose rate is rising.*

# Pain Management Barriers



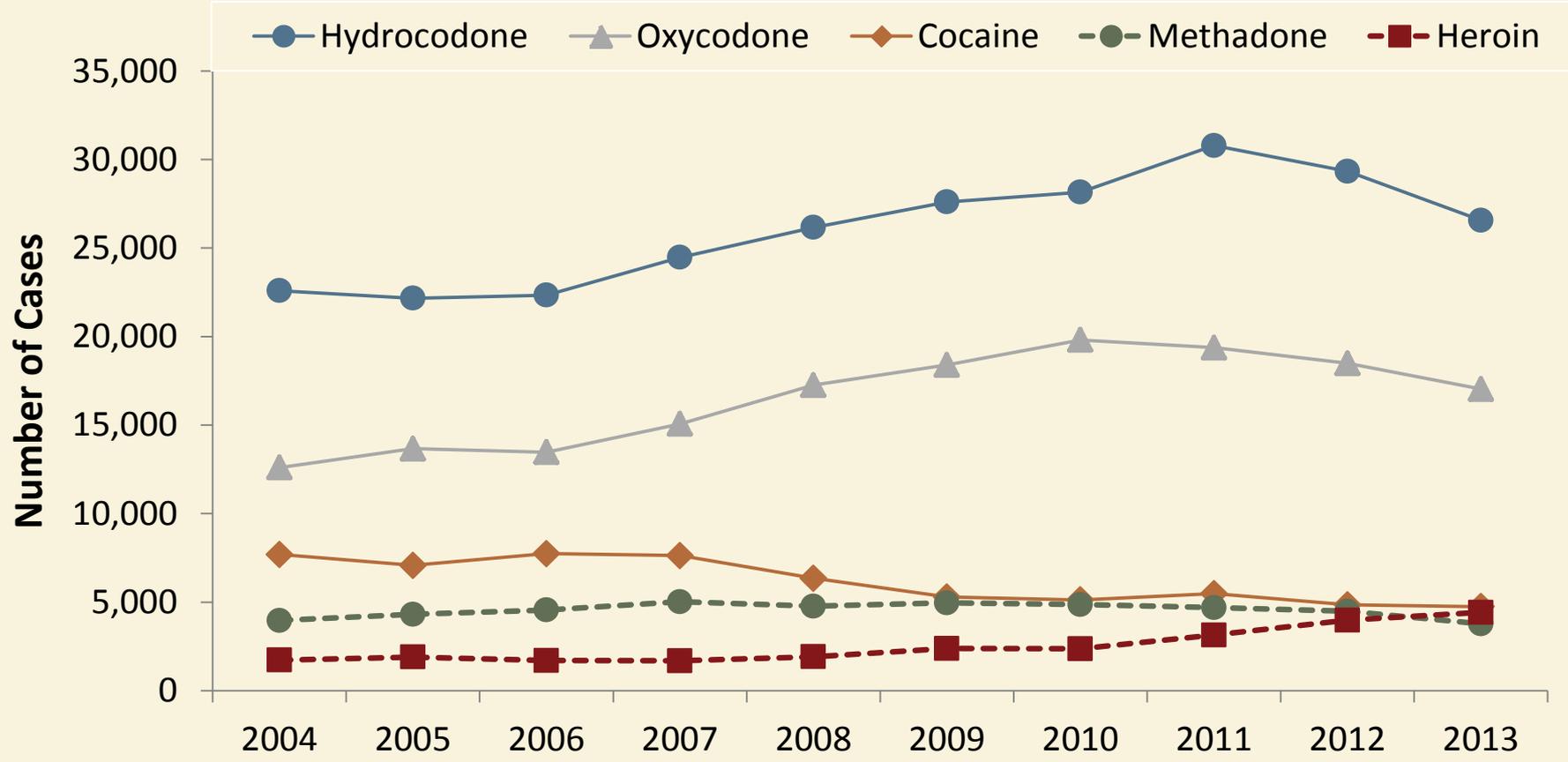
**Problems related to opioid use are rising in tandem with distribution.**

# Age-Adjusted Death Rates for Three Selected Causes Of Injury, United States, 1979–2013<sup>13,14</sup>

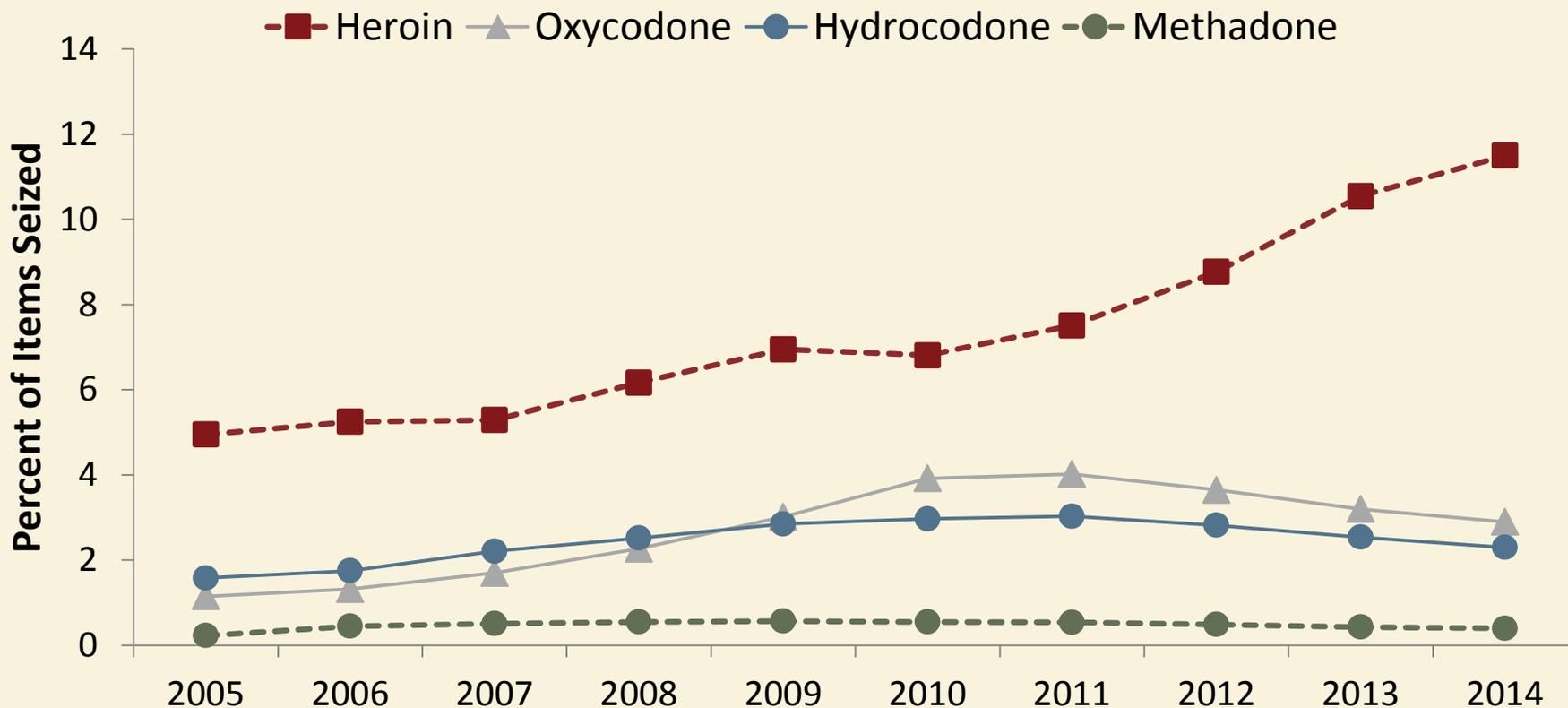


§ In 1999, International Classification of Diseases, 10th Revision (ICD-10) replaced the previous revision of the ICD (ICD-9).

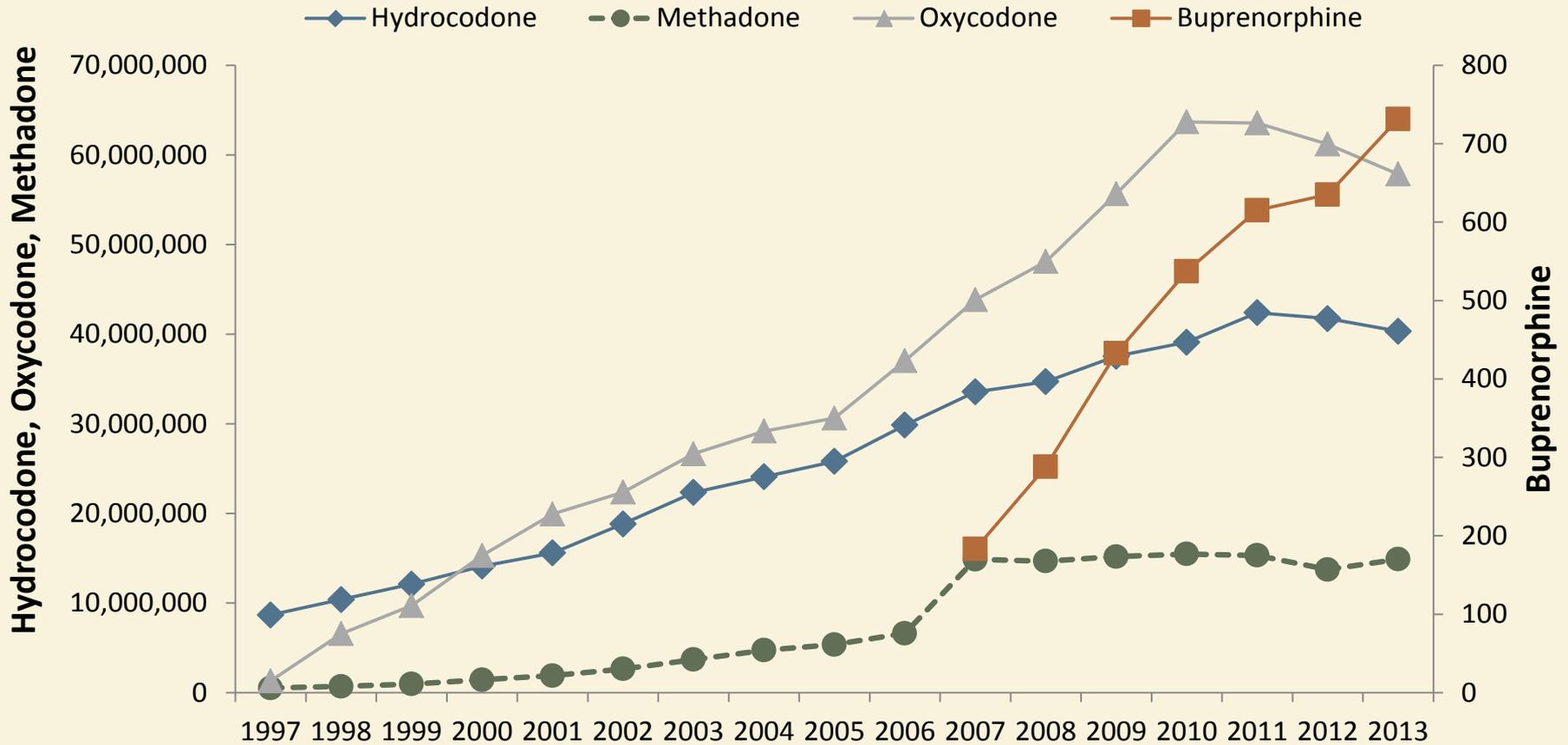
# Human Exposure Cases Reported by Poison Centers in the United States: AAPCC 2004–2013<sup>15</sup>



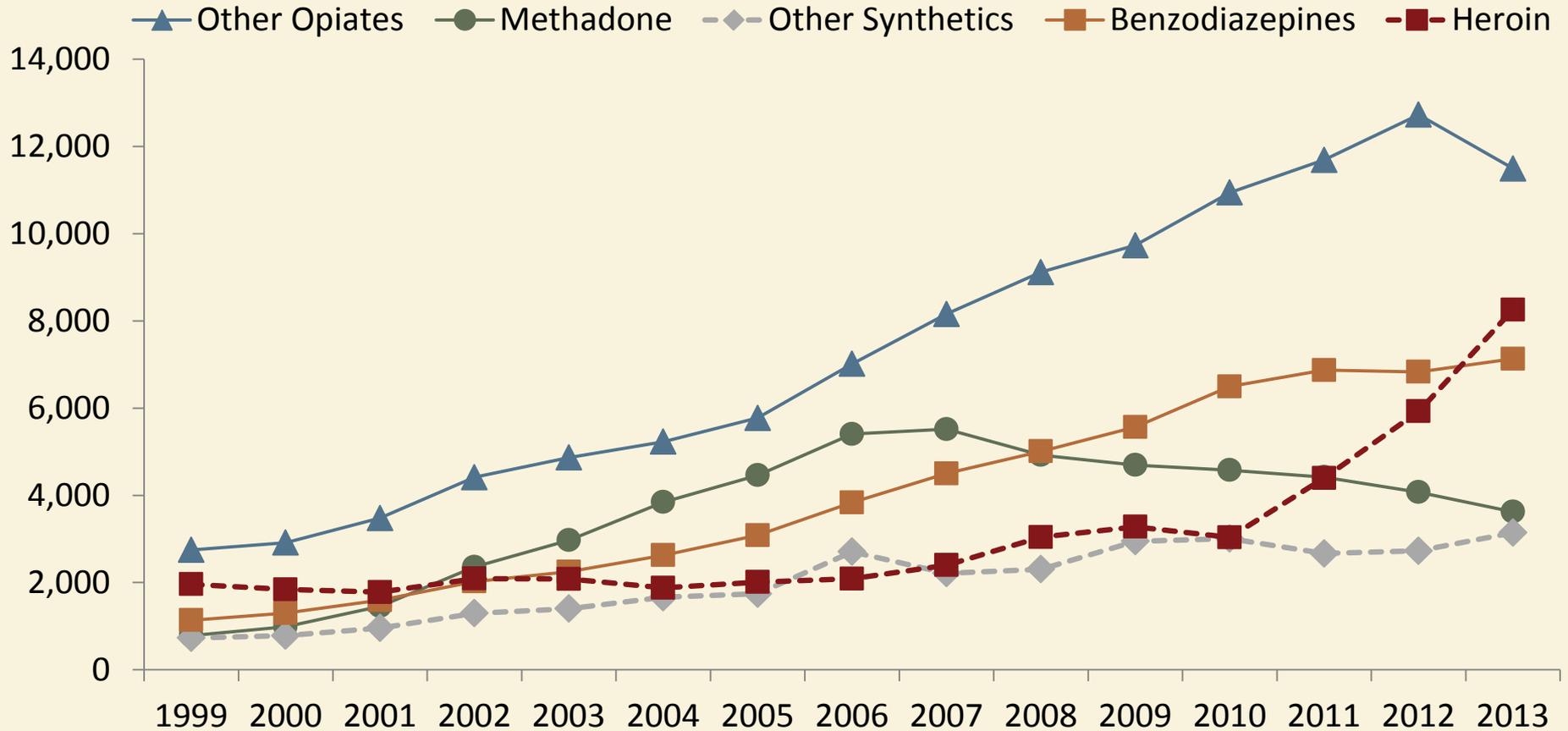
# Percentage of Items Identified in DEA's NFLIS Laboratory System: 2005–2014<sup>16</sup>



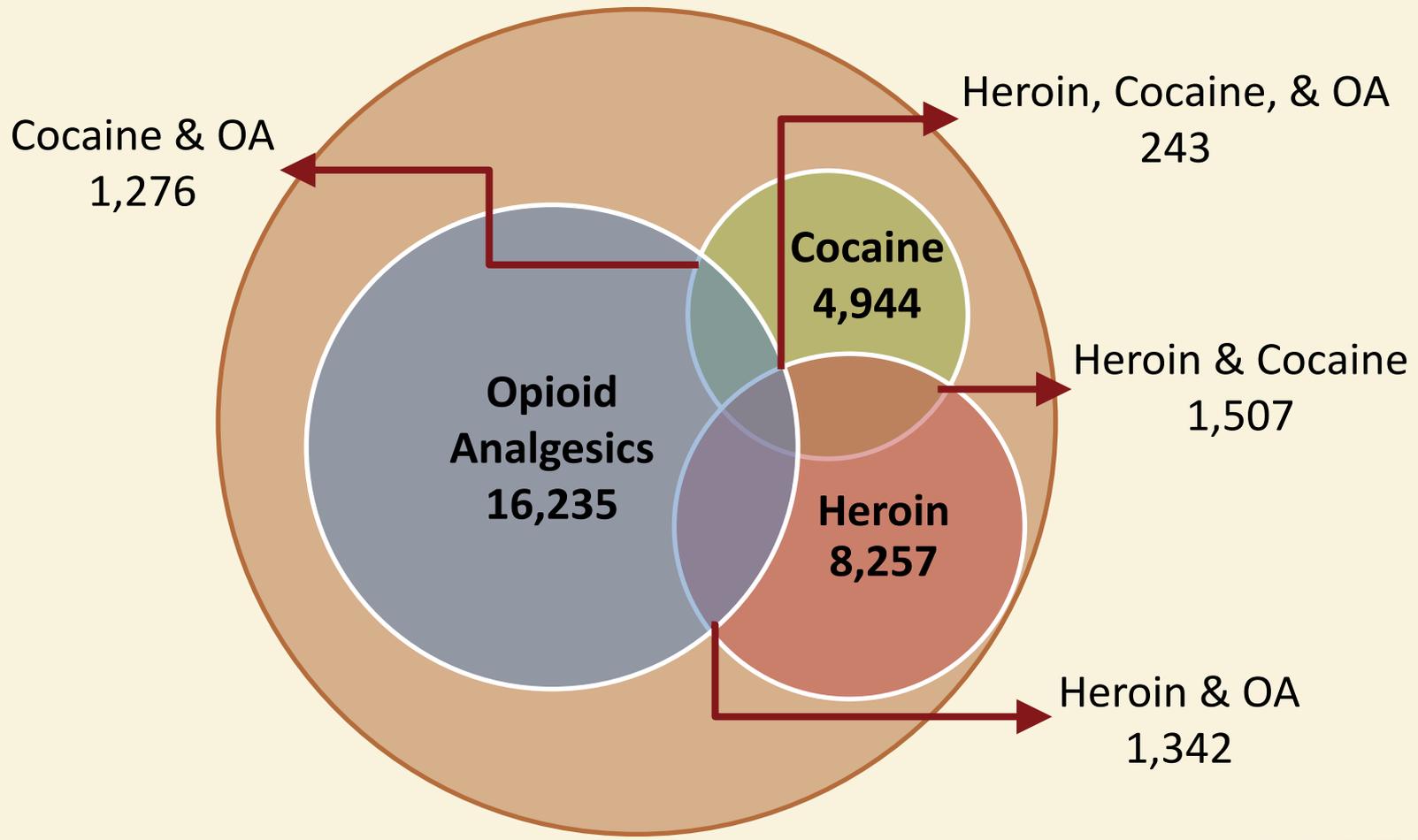
# Grams of Selected Drugs Distributed per 100,000: DEA ARCOS 1997–2013<sup>17</sup>



# Number of U.S. Drug Poisoning Deaths CDC 1999–2013<sup>18</sup>

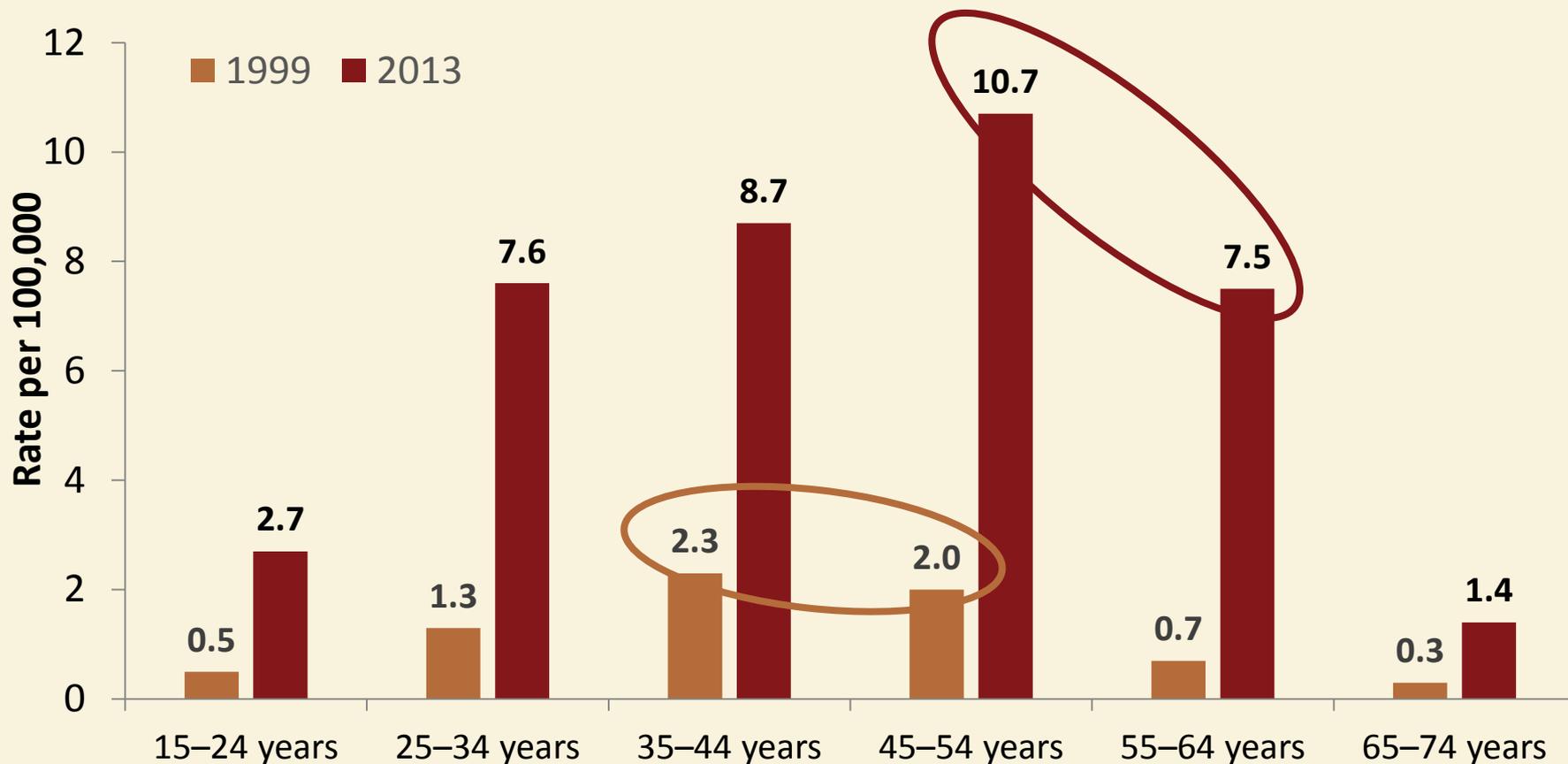


# Number of Drug-Poisoning Deaths Involving Heroin, Cocaine, and Opioid Analgesics, United States, 2013<sup>19</sup>

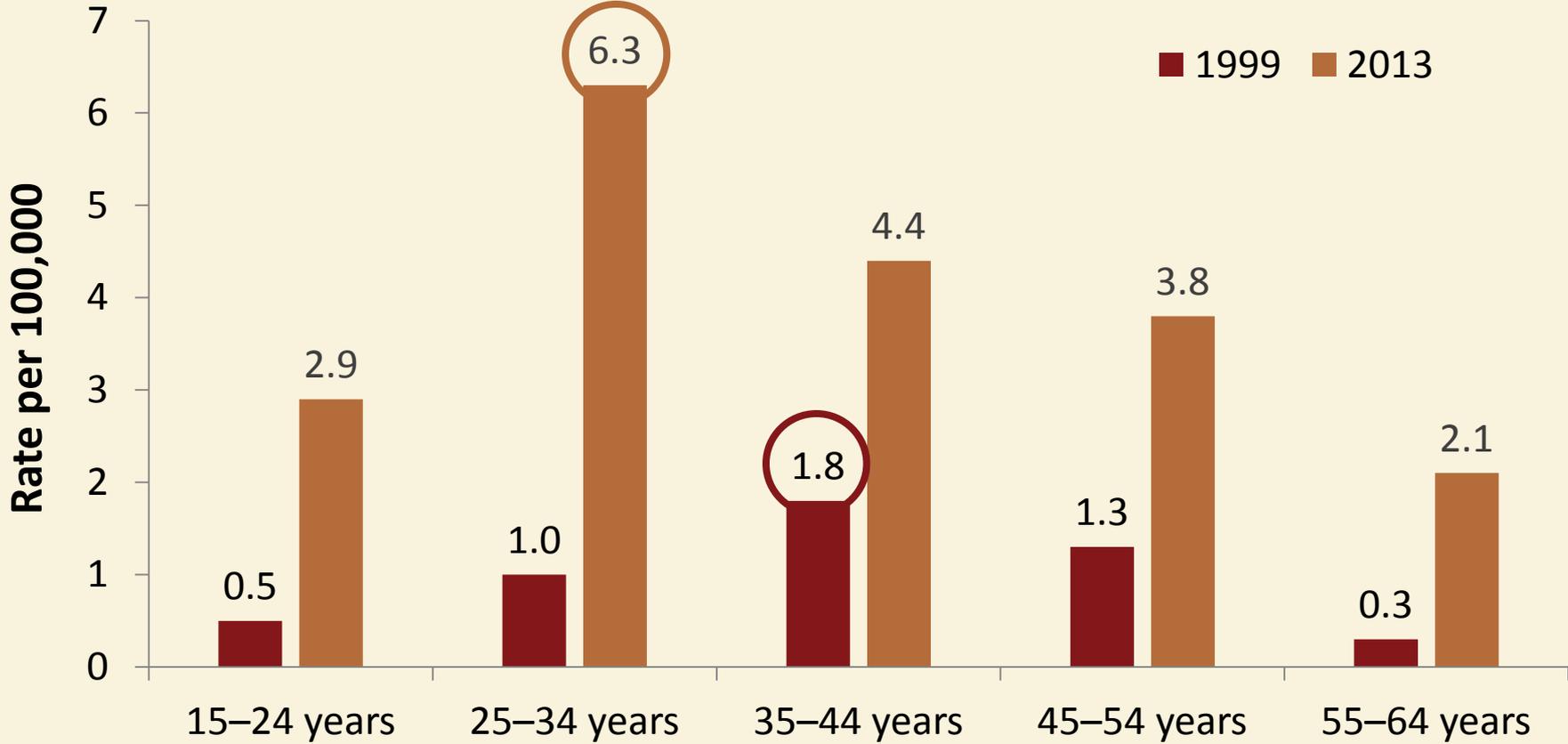


Notes: The number of drug-poisoning deaths in 2013 was 43,982; OA = opioid analgesics

# Rates per 100,000 of Drug-Poisoning Deaths Involving Other Opiates in the United States: 1999 & 2013<sup>22</sup>



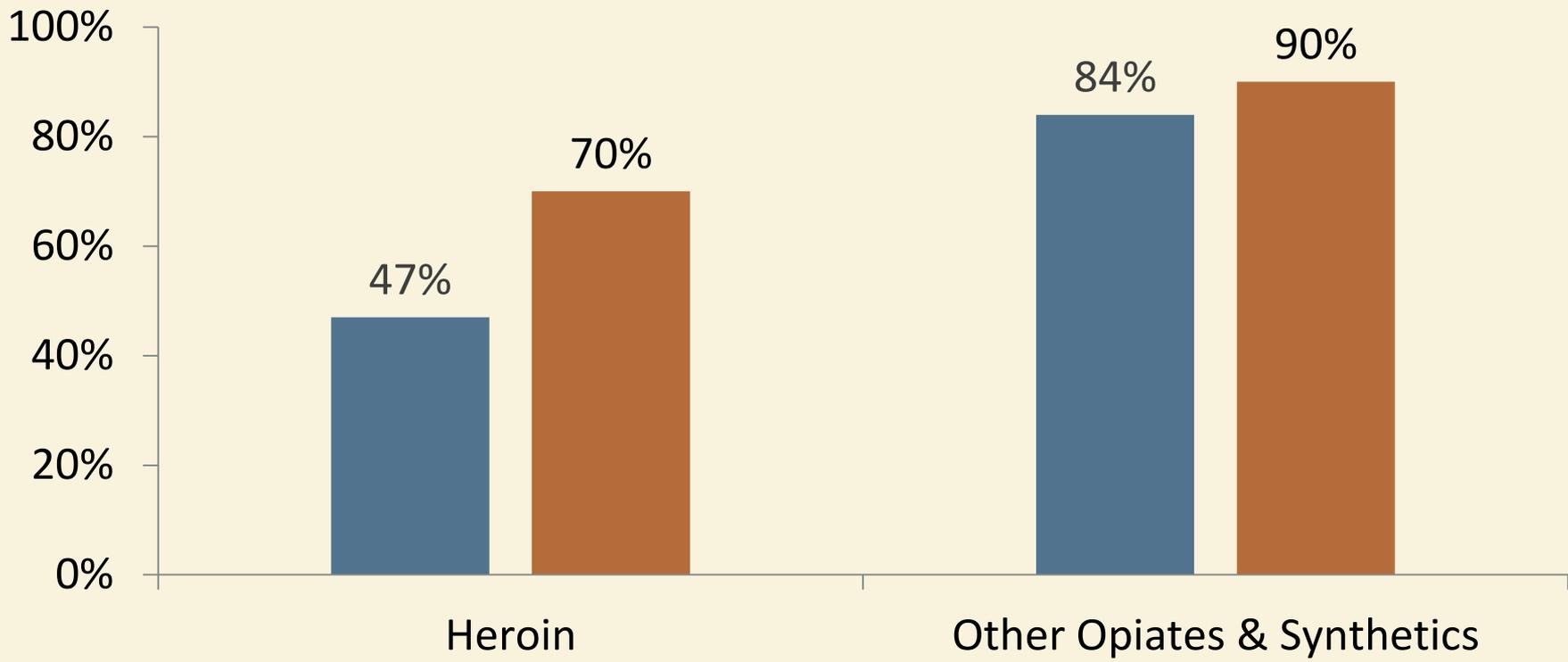
# Rates per 100,000 of Drug-Poisoning Deaths Involving Heroin in the United States: 1999 & 2013<sup>23</sup>



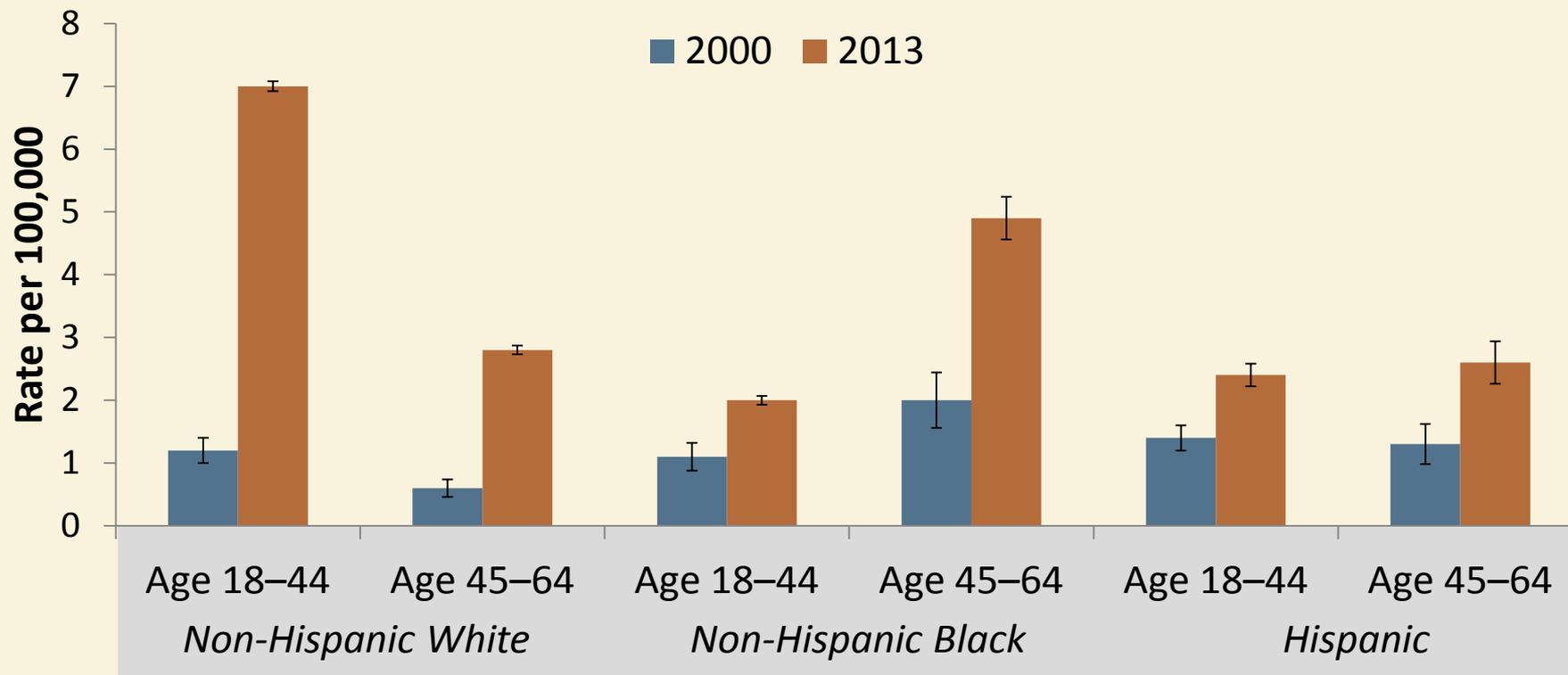
# Changes in the Proportion of White Clients Entering Treatment: TEDS 1992 & 2012<sup>22</sup>



■ 1992 ■ 2012

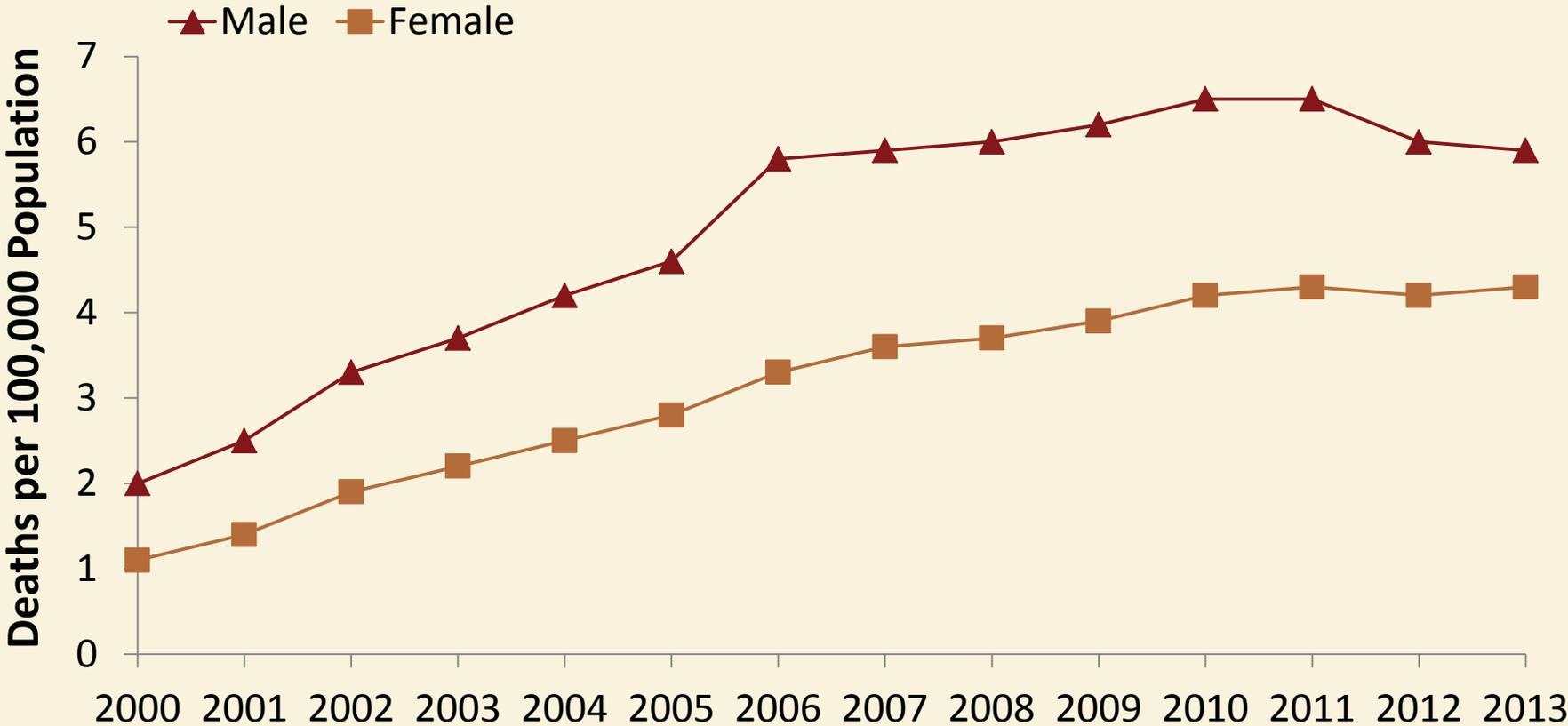


# Rate for Drug-Poisoning Deaths Involving Heroin, by Selected Age and Race-Ethnicity Groups, United States, 2000 & 2013<sup>23, 24</sup>

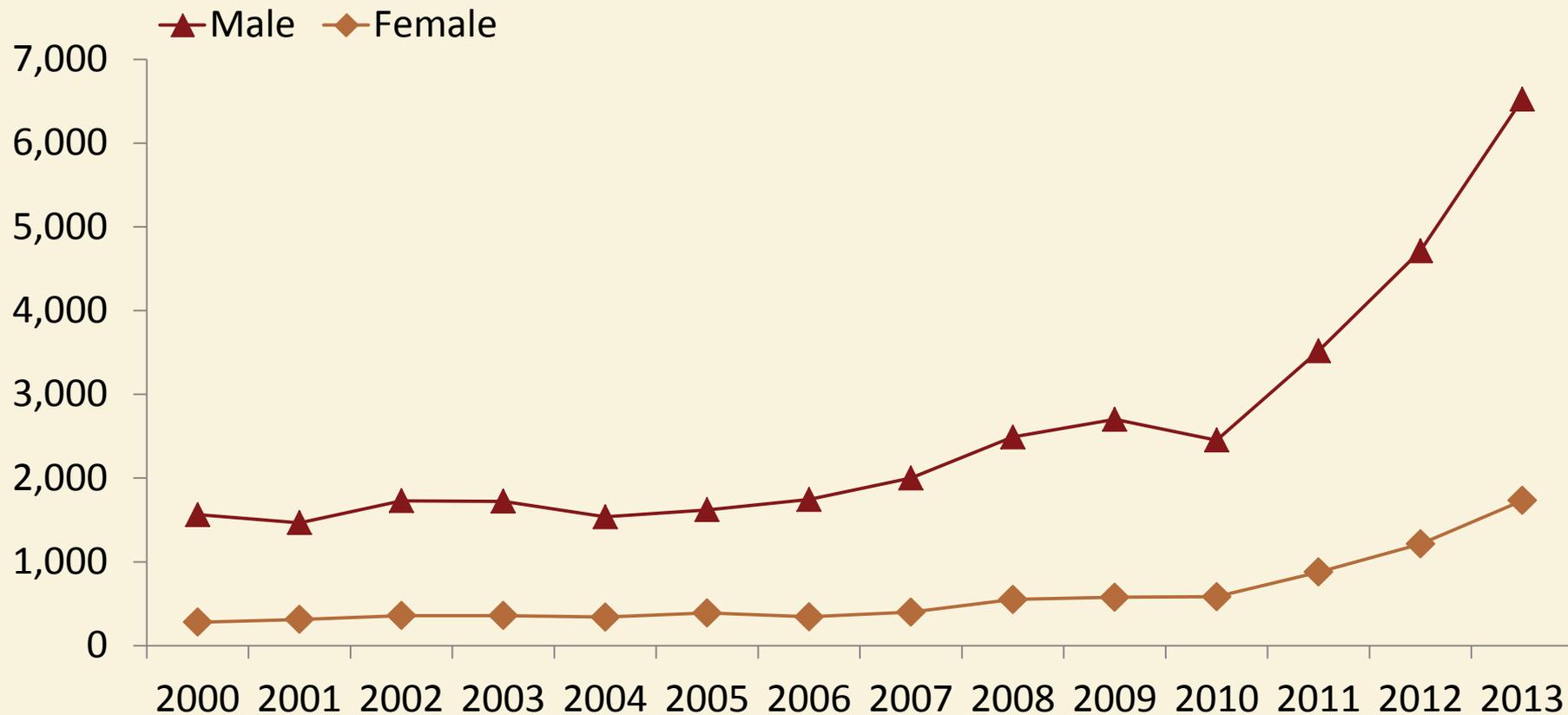


Note: Deaths for Hispanic persons are underreported by 5 percent. See *Deaths: Final Data for 2010* ([http://www.cdc.gov/nchs/data/nvsr/nvsr61/nvsr61\\_04.pdf](http://www.cdc.gov/nchs/data/nvsr/nvsr61/nvsr61_04.pdf)).

# Age-Adjusted Opioid Analgesic Poisoning Death Rates by Sex, United States, 2000–2013<sup>25, 26</sup>

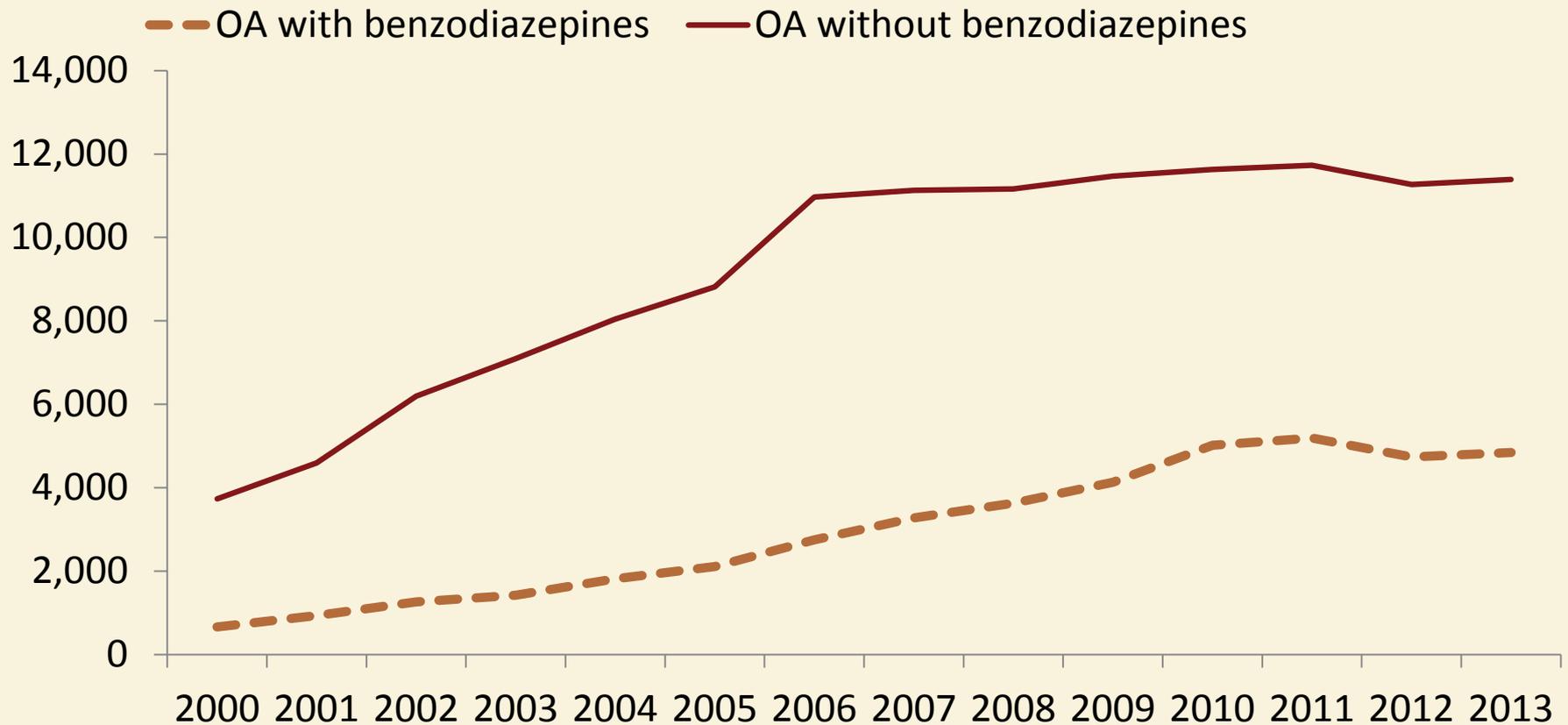


# Number of Drug-Poisoning Deaths Involving Heroin, by Sex of Decedent, United States, 2000–2013<sup>27, 28</sup>

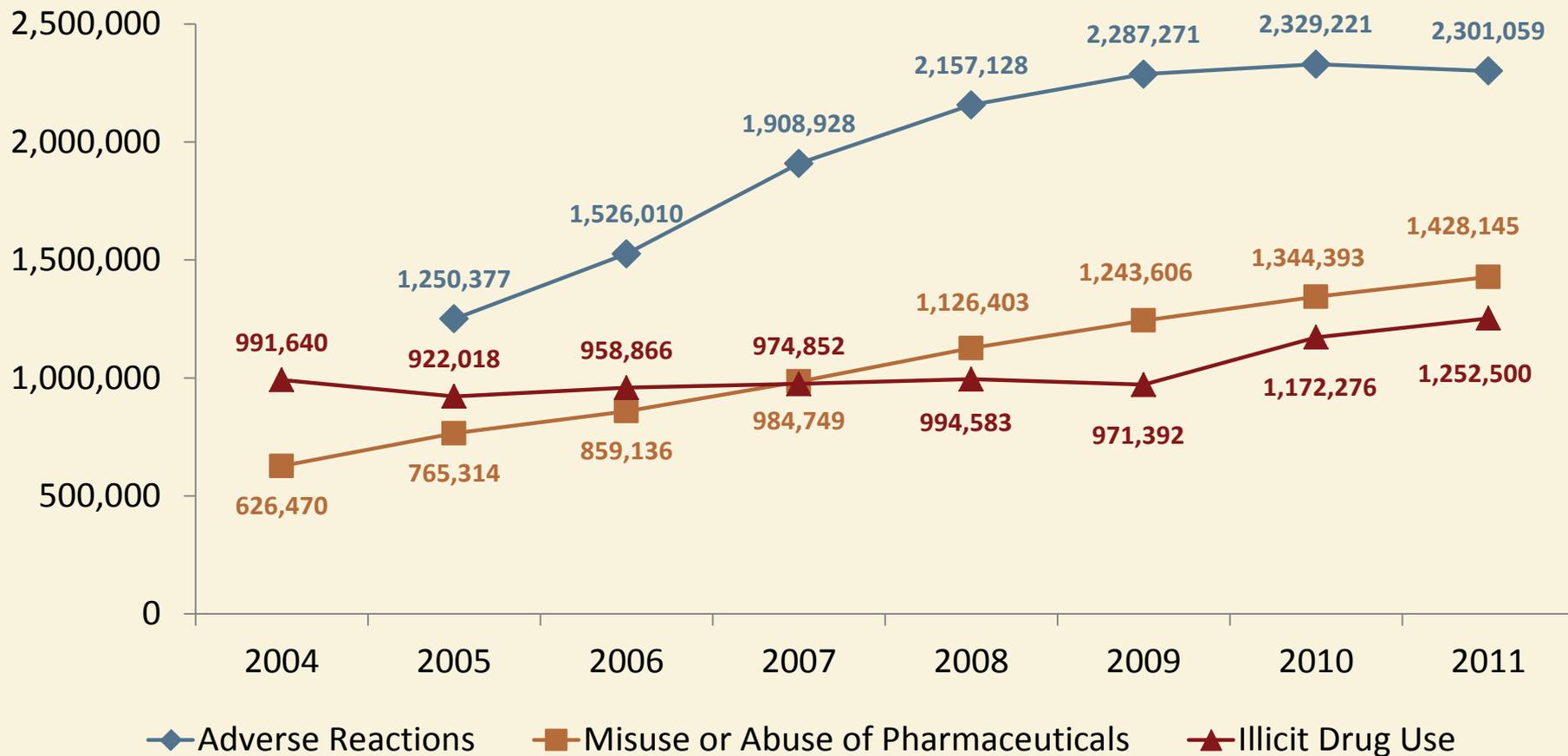


# Number of Opioid Analgesic Poisoning Deaths by Involvement of Benzodiazepines

## United States, 2000–2013<sup>29, 30</sup>

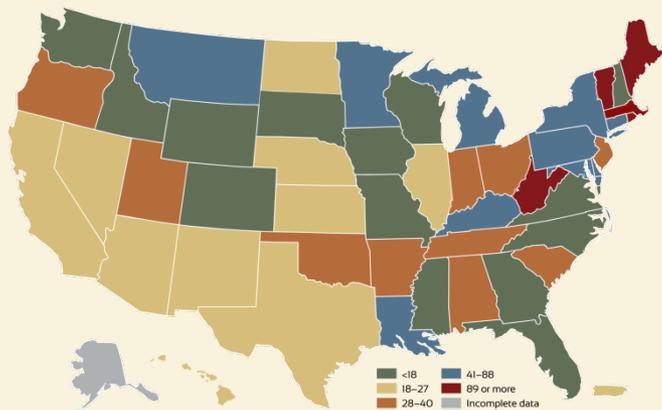


# Reasons for Drug-Related Emergency Department Visits, by Year: 2004–2011<sup>31</sup>

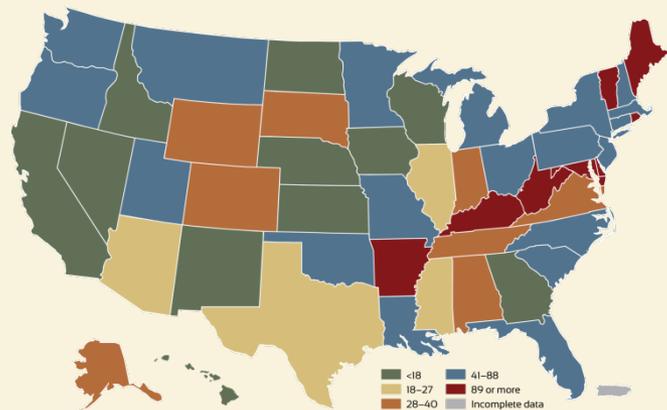


# Substance Abuse Treatment Admissions for Nonheroin Opiates/Synthetics by State or Jurisdiction: TEDS 2006<sup>32</sup>

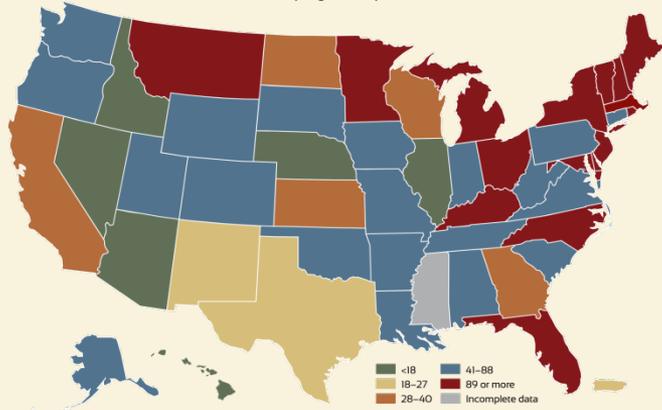
(rate per 100,000 population aged 12 and over)



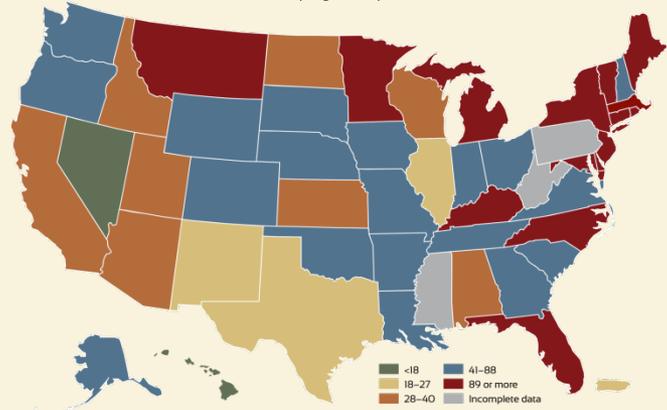
2006  
(range 1-271)



2008  
(range 1-395)

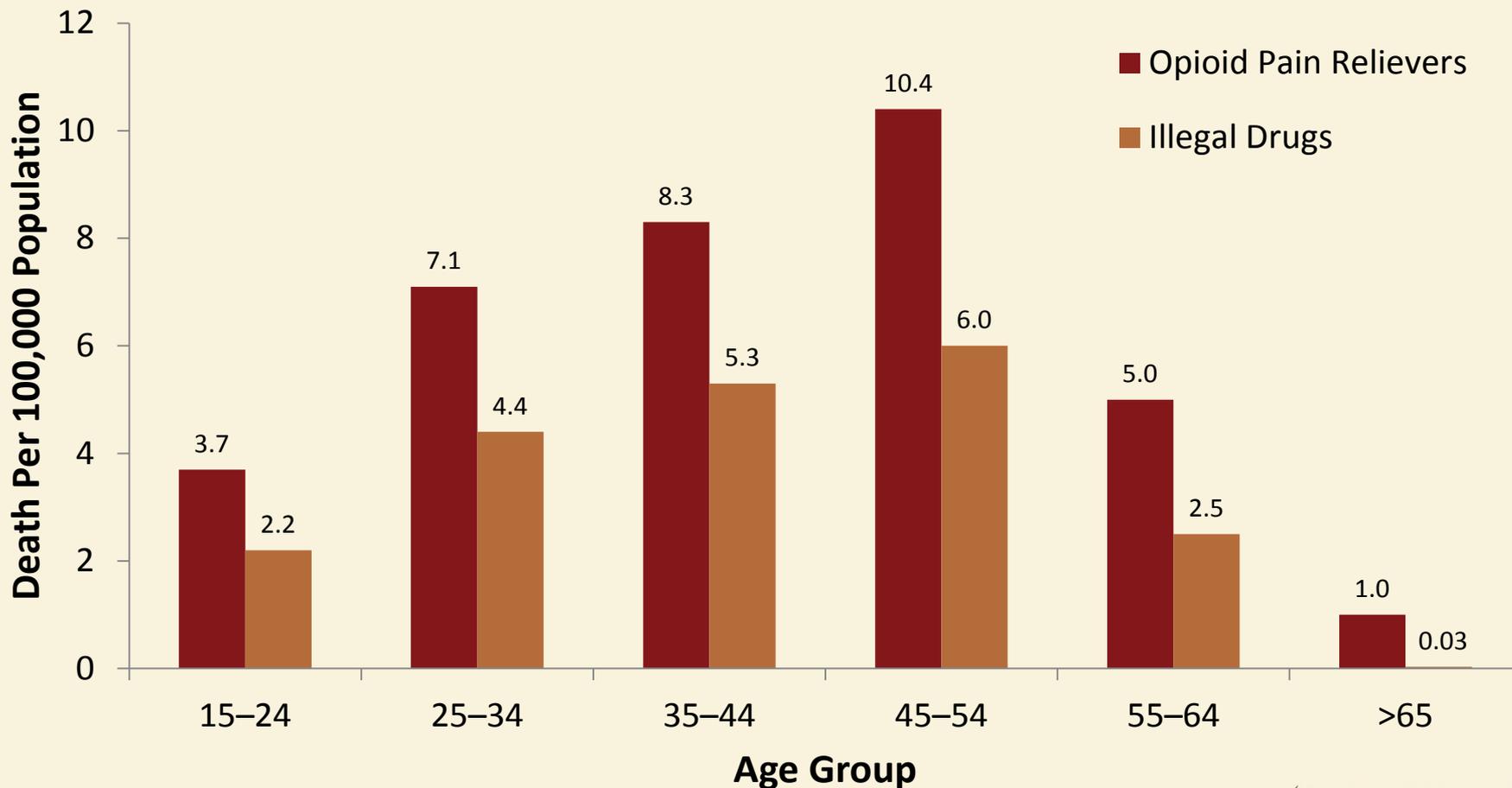


2010  
(range 2-363)



2012  
(range 1-443)

# 2011 Deaths From Opioid Pain Relievers Exceed Those From All Illegal Drugs<sup>33</sup>



# For Every RX Opioid Overdose in 2011 There Were ...<sup>34, 35</sup>



**12** Treatment admissions for opioids

**25** Emergency department visits for opioids

**105** People who abused or were dependent on opioids

**659** Nonmedical opioids users

# Additional Needs to Lessen Opioid Abuse

- ▶ Apply consistent prescription monitoring programs with real-time data available across state lines to prescribers.
- ▶ Use available data, such as ARCOS and NFLIS, to pinpoint areas where prescribing practice rates do not show balance between pain relief and patient safety.
- ▶ Limits on the size of patient loads are preventing immediate access to treatment.
- ▶ Increase the number of addiction specialists to provide more treatment to patients using medication-assisted therapies.
- ▶ The cost of buprenorphine and naltrexone and reimbursement rates can be a limitation on their use.

# Questions for Discussion

- ▶ Are today's methadone programs easily accessible and attractive to new young suburban patients?
- ▶ Do we need new treatment modalities such as outpatient detoxification to attract aging Baby Boomers addicted to pain pills and benzos?
- ▶ Parallel prescribing of naloxone and pain pills could be a good prevention method and also lessen the stigma that naloxone is "soft on drugs." These dual prescriptions should be targeted to patients who are noncompliant; on high daily doses; have been switched to another opioid; have COPD, sleep apnea, or depression; or are unable cognitively to manage their med, as well as education for families on signs of overdose and use of naloxone.
- ▶ Lack of knowledge about new medication-assisted therapies and targets for use and stigma of and by users

# References

- <sup>1</sup>National Institutes of Health, Office of Disease Prevention. (September 29-30, 2014). *Pathways to prevention workshop: The role of opioids in the treatment of chronic pain*. Retrieved on May 31, 2015, from [https://prevention.nih.gov/docs/programs/p2p/ODPPainPanelStatementFinal\\_10-02-14.pdf](https://prevention.nih.gov/docs/programs/p2p/ODPPainPanelStatementFinal_10-02-14.pdf)
- <sup>2</sup>Ibid
- <sup>3</sup>Gureje, O., Korff, M., Simon, G., & Gater, R. (1998). Persistent pain and well-being: A World Health Organization study in primary care. *Journal of American Medical Association*, 280(2), 147-151.
- <sup>4</sup>Verhaak, P., Kerssens, J., Dekker, J., Sorbi, M., & Bensing, J. (1998). Prevalence of chronic benign pain disorder among adults: A review of the literature. *Pain*, 77(3), 231-239.
- <sup>5</sup>Català, E., Reig, E., Artés, M., Aliaga, L., López, J., & Segú, J. (2002.). Prevalence of pain in the Spanish population telephone survey in 5000 homes. *European Journal of Pain*, 6(2), 133-140.
- <sup>6</sup>Cicero, T., Ellis, M., Surratt, H., & Kurtz, S. (2014). The changing face of heroin use in the United States, A retrospective analysis of the past 50 Years. *JAMA Psychiatry*, 71(7), 821-826.
- <sup>7</sup>IMS Institute for Healthcare Informatics. (April 2014). *Medicine use and shifting costs of healthcare: A review of the use of medicines in the United States in 2013*. Parsippany, NJ: Author. Retrieved on May 26, 2015, from [http://www.imshealth.com/deployedfiles/imshealth/Global/Content/Corporate/IMS%20Health%20Institute/Reports/Secure/IIHI\\_US\\_Use\\_of\\_Meds\\_for\\_2013.pdf](http://www.imshealth.com/deployedfiles/imshealth/Global/Content/Corporate/IMS%20Health%20Institute/Reports/Secure/IIHI_US_Use_of_Meds_for_2013.pdf).
- <sup>8</sup>Maine Office of Substance Abuse and Mental Health Service. (2015). *Maine Prescription Monitoring Program*. Extracted May 4, 2015.
- <sup>9</sup>Federal Register. (2014, August 22). *Schedules of controlled substances: Rescheduling of hydrocodone combination products from schedule III to schedule II—A rule by the Drug Enforcement Administration*. Retrieved from <https://www.federalregister.gov/articles/2014/08/22/2014-19922/schedules-of-controlled-substances-rescheduling-of-hydrocodone-combination-products-from-schedule>

# References continued

- <sup>10</sup>Pollini, R. A., Banta-Green, C. J., Cuevas-Mota, J., Metzner, M., Teshale, E., & Garfein, R. S. (2011). Problematic use of prescription type opioids prior to heroin use among young heroin injectors. *Substance Abuse and Rehabilitation*, 2, 173-180.
- <sup>11</sup>Muhuri, P. K., Gfroerer, J. C., & Davies, M. C. (2013). *Associations of nonmedical pain reliever use and initiation of heroin use in the United States*. SAMHSA CBMSQ Data Review. Retrieved on May 31, 2015, from <http://www.samhsa.gov/data/sites/default/files/DR006/DR006/nonmedical-pain-reliever-use-2013.htm>
- <sup>12</sup>Hedegaard, H., Chen, L. H., & Warner, M. (2015) Drug-poisoning deaths involving heroin: United States, 2000-2013. *NCHS Data Brief*, 190. Hyattsville, MD: National Center for Health Statistics.
- <sup>13</sup>Centers for Disease Control and Prevention. *Age-adjusted death rates for selected causes, death registration states, 1900–32, and United States, 1933–98*. National Vital Statistics System, HIST293. Retrieved from <http://www.cdc.gov/nchs/nvss/mortality/hist293.htm>
- <sup>14</sup>Centers for Disease Control and Prevention. (November 21, 2014). QuickStats: Death rates for three selected causes of injury— National Vital Statistics System, United States, 1979-2012. *Morbidity and Mortality Weekly Report November*, 63(46), 1095. Retrieved from <http://www.cdc.gov/mmwr/preview/mmwrhtml/mm6346a19.htm>
- <sup>15</sup>American Association of Poison Control Centers. *Annual reports of the American Association of Poison Control Centers 2004-2012*. Retrieved from <http://www.aapcc.org/annual-reports/>
- <sup>16</sup>Drug Enforcement Administration, Office of Diversion Control. National Forensic Laboratory Information System. Retrieved on September 19, 2014, from <http://www.deadiversion.usdoj.gov/nflis/index.html>
- <sup>17</sup>Drug Enforcement Administration, Office of Diversion Control. Automation of Reports and Consolidated Orders System. Retrieved on September 19, 2014, from <http://www.deadiversion.usdoj.gov/arcos/index.html>
- <sup>18</sup>Centers for Disease Control and Prevention. WONDER Online Database. National Vital Statistics System, Mortality File.
- <sup>19</sup>Ibid

# Reference continued

- <sup>20</sup>Ibid
- <sup>21</sup>Ibid
- <sup>22</sup>U.S. Department of Health and Human Services, Substance Abuse and Mental Health Services Administration, Center for Behavioral Health Statistics and Quality. *Treatment Episode Data Set, 2002–2012: State admissions to substance abuse treatment services*. BHSIS Series S-72, HHS Publication No. (SMA) 14-4889. Rockville, MD: Author.
- <sup>23</sup>Centers for Disease Control and Prevention. WONDER Online Database. National Vital Statistics System, Mortality File.
- <sup>24</sup>Hedegaard, H., Chen, L. H., & Warner, M. (2015). Drug-poisoning deaths involving heroin: United States, 2000-2013. *NCHS Data Brief, 190*. Hyattsville, MD: National Center for Health Statistics.
- <sup>25</sup>Centers for Disease Control and Prevention, National Center for Health Statistics. National Vital Statistics System, Mortality File.
- <sup>26</sup>Hedegaard, H., Chen, L. H., & Warner, M. (2015). Drug-poisoning deaths involving heroin: United States, 2000-2013. *NCHS Data Brief, 190*. Hyattsville, MD: National Center for Health Statistics.
- <sup>27</sup>Centers for Disease Control and Prevention. WONDER Online Database. National Vital Statistics System, Mortality File.
- <sup>28</sup>Hedegaard, H., Chen, L. H., & Warner, M. (2015). Drug-poisoning deaths involving heroin: United States, 2000-2013. *NCHS Data Brief, 190*. Hyattsville, MD: National Center for Health Statistics.
- <sup>29</sup>Centers for Disease Control and Prevention. WONDER Online Database. National Vital Statistics System, Mortality File.

# References continued

- <sup>30</sup>Hedegaard, H., Chen, L. H., & Warner M. (2015). Drug-poisoning deaths involving heroin: United States, 2000-2013. *NCHS Data Brief, 190*. Hyattsville, MD: National Center for Health Statistics.
- <sup>31</sup>U.S. Department of Health and Human Services, Substance Abuse and Mental Health Services Administration, Center for Behavioral Health Statistics and Quality. *The DAWN report: Highlights of the 2011 Drug Abuse Warning Network (DAWN) findings on drug-related emergency department visits*. Rockville, MD: Author.
- <sup>32</sup>U.S. Department of Health and Human Services, Substance Abuse and Mental Health Services Administration, Center for Behavioral Health Statistics and Quality. *Treatment Episode Data Set, 2002-2012: State admissions to substance abuse treatment services*. BHSIS Series S-72, HHS Publication No. (SMA) 14-4889. Rockville, MD: Author.
- <sup>33</sup>Centers for Disease Control and Prevention. (2011). Vital signs: Overdoses of prescription opioid pain relievers—United States, 1999-2008. *Morbidity and Mortality Weekly Report, 60*(43), 1489-1492.
- <sup>34</sup>U.S. Department of Health and Human Services, Substance Abuse and Mental Health Services Administration, Center for Behavioral Health Statistics and Quality. *The DAWN Report: Highlights of the 2011 Drug Abuse Warning Network (DAWN) findings on drug-related emergency department visits*. Rockville, MD: Author.
- <sup>35</sup>U.S. Department of Health and Human Services, Substance Abuse and Mental Health Services Administration, Center for Behavioral Health Statistics and Quality. *Treatment Episode Data Set, 2002-2012: State admissions to substance abuse treatment services*. BHSIS Series S-72, HHS Publication No. (SMA) 14-4889. Rockville, MD: Author.



# The Nature of Chronic Pain and the Role of Opioids in Pain Management



# The Problem of Pain<sup>1</sup>

- ▶ Pain costs the U.S. economy an estimated \$560 billion a year
  - Health care costs
  - Welfare and disability payments
  - Lost tax revenues
  - Lost productivity (work absence)
- ▶ 40 million pain-related physician visits each year
  - The most common reason for medical visits
- ▶ Push toward opioid maintenance therapy for chronic nonmalignant pain

# Prevalence of Recurrent and Persistent Pain in the United States<sup>2</sup>

- ▶ One in four Americans suffers from recurrent pain (defined as a daylong bout of pain at least once each month).
  - One in 10 Americans reports having persistent pain of at least 1 year's duration.
  - One in 5 persons over age 65 reports pain persisting for more than 24 hours in the preceding month (6 in 10 report pain persisting more than 1 year).
  - Two out of 3 veterans of the armed forces report having persistent pain attributable to their military service (1 in 10 take prescription medicines to manage pain).

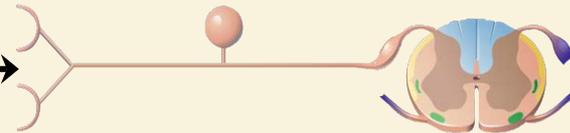
# What Is Pain?

- ▶ Pain has been defined as an unpleasant **sensory and emotional** experience associated with actual or potential tissue damage.<sup>3</sup>
- ▶ The experience of pain is **more than a simple sensory process**. It is a complex perception involving higher levels of the central nervous system, emotional states, and higher order mental processes.<sup>4</sup>

# There Are Multiple Types of Pain<sup>5</sup>

## A. Nociceptive

Noxious Peripheral Stimuli →



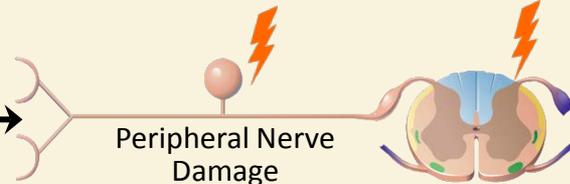
## B. Inflammatory

Inflammation →



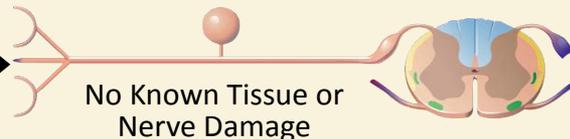
## C. Neuropathic

Multiple Mechanisms →



## D. Noninflammatory/ Nonneuropathic

Abnormal Central Processing →



### Examples

- Strains and sprains
- Bone fractures
- Postoperative
- Osteoarthritis
- Rheumatoid arthritis
- Tendonitis
- Diabetic peripheral neuropathy
- Postherpetic neuralgia
- HIV-related polyneuropathy
- Fibromyalgia
- Irritable bowel syndrome

# Causes of Chronic Pain

- ▶ Chronic pain occurs if the body's alarm system (pain) does not turn off when it should.
- ▶ The **symptom** of pain at that point becomes the **disease** of pain, or chronic pain.



# Pain Is Experienced Subjectively

- ▶ Everyone experiences pain differently.
- ▶ An individual's response to pain depends on his or her physiology, genetics, and environment, and on how he or she has been acculturated to experience distress.



# Components of Chronic Nonmalignant Pain

- ▶ Perception of pain as a 4-step model:
  - 1. Transduction:** Acute stimulation in the form of noxious thermal, mechanical, or chemical stimuli is detected by nociceptive neurons.
  - 2. Transmission:** Nerve impulses are transferred via axons of afferent neurons from the periphery to the spinal cord, to the medial and ventrobasal thalamus, to the cerebral cortex.

# Components of Chronic Nonmalignant Pain continued

- ▶ Perception of pain as a 4-step model:
  - 3. Perception:** Cortical and limbic structures in the brain are involved in the awareness and interpretation of pain.
  - 4. Modulation:** Pain can be inhibited or facilitated by mechanisms affecting ascending as well as descending pathways.

# Sources of Chronic Pain

- ▶ Osteoarthritis
- ▶ Low back pain
- ▶ Myofascial pain
- ▶ Fibromyalgia
- ▶ Headaches (e.g., migraine, tension-type, cluster)
- ▶ “Central pain” (e.g., spinal cord injury, stroke, MS)



# Sources of Chronic Pain continued

- ▶ Chronic abdominal pain (e.g., chronic pancreatitis, chronic peptic ulcer disease, irritable bowel syndrome)
- ▶ Sickle cell disease
- ▶ Complex regional pain syndrome, Types I and II
- ▶ Phantom limb pain
- ▶ Peripheral neuropathy
- ▶ Neuralgia (e.g., postherpetic, trigeminal)

# Treatment Goals in Managing Chronic Nonmalignant Pain

- ▶ Improve patient functioning.
- ▶ Identify, eliminate, or reduce pain reinforcers.
- ▶ Increase physical activity.

**The goal is NOT total eradication of pain!**

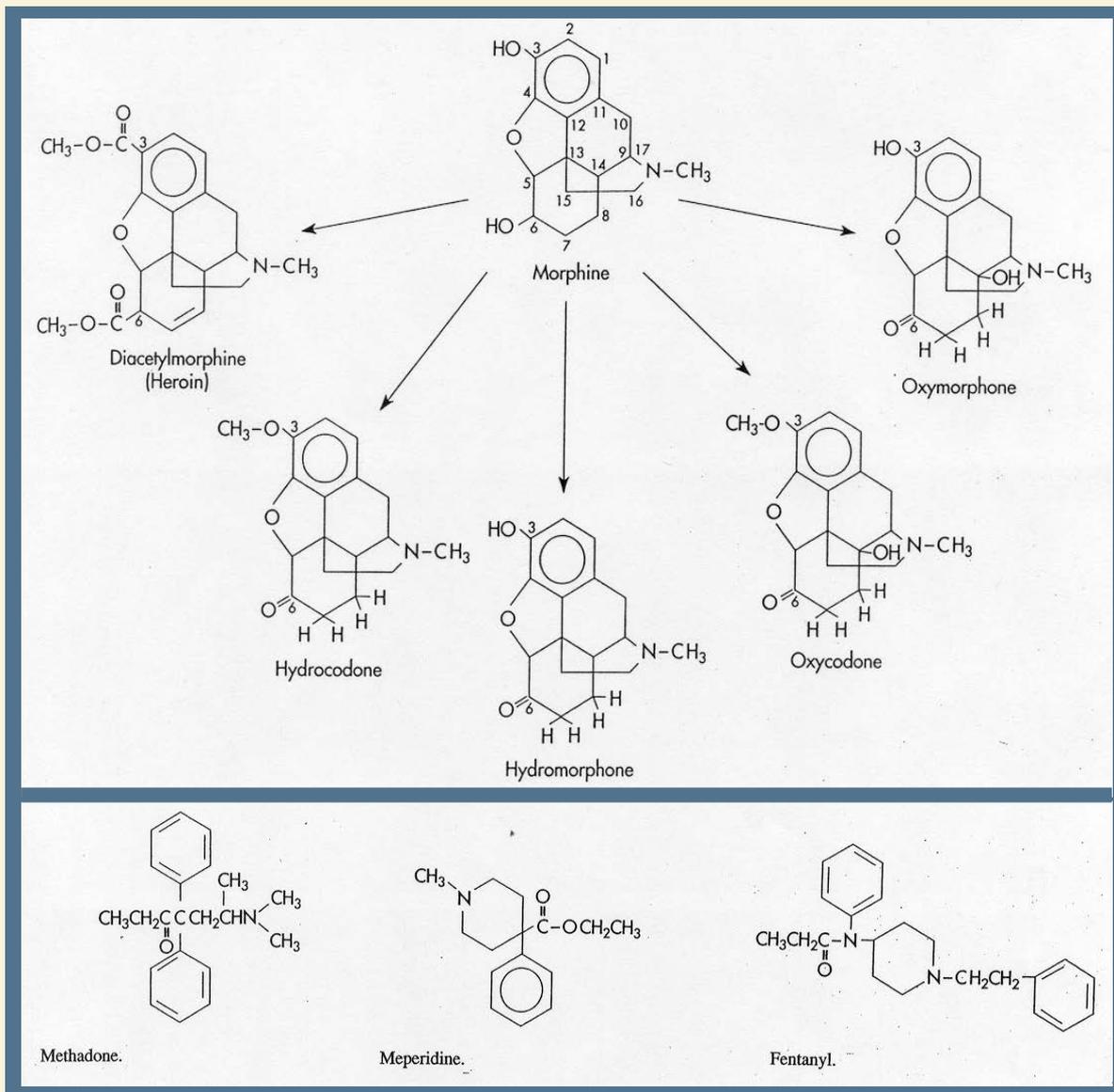
# Nonopioid Pain Relievers

- ▶ Can be an option—will review in detail in Module 9. Stay tuned.



# Opioids

Natural (opiates)  
and  
semisynthetic



# Responses Mediated by Opioid Receptors<sup>6</sup>

G-Protein Coupled Receptor	Response of Activation
mu	Analgesia, respiratory depression, sedation, miosis, euphoria, reduced gastrointestinal motility
delta	Analgesia, euphoria
kappa	Analgesia, dysphoria, psychotomimetic effects, miosis, respiratory depression

# Opioid Safety

- ▶ Side effects are common
  - Nausea, vomiting
  - Sedation, respiratory depression
  - Constipation, urinary retention
  - Sweating, insomnia, decreased sexual function
  - Cognitive impairment, psychomotor dysfunction
    - Opioid-induced delirium

# Opioid Safety continued<sup>7, 8, 9</sup>

- ▶ Organ toxicity is rare
  - Hypothalamic-pituitary-adrenal axis: decreased cortisol
  - Hypothalamic-pituitary-gonadal axis: increased prolactin, decreased LH, FSH, testosterone, estrogen, progesterone
- ▶ Overdose, especially when combined with other sedatives
- ▶ Worsening pain (withdrawal or hyperalgesia)
- ▶ Risk of addiction (opioid dependence)
- ▶ Societal toxicity (diversion and trafficking)

# FDA Warnings About Methadone

## FDA Alert

- ▶ “Methadone doses for pain should be carefully selected and slowly titrated to analgesic effect even in patients who are opioid tolerant.”<sup>10</sup>
- ▶ “Physicians should closely monitor patients when converting them from other opioids and changing the methadone dose, and thoroughly instruct patients on how to take methadone.”
- ▶ “Healthcare professionals should tell patients to take no more methadone than has been prescribed without first talking to their physician.”<sup>11</sup>
- ▶ “Methadone should be used during pregnancy only if the potential benefit justifies the potential risk to the fetus.”

# Opioid Options

- ▶ Strong versus weak (ceiling effect)
- ▶ Duration and onset of action
  - “Rate hypothesis”—fast on, fast off—most addicting
- ▶ Patient’s prior experience
  - Mu polymorphisms—differences in opioid responsiveness
- ▶ Route of administration
- ▶ Side effects and cost

**There are *NO* abuse-resistant opioids or opioid formulations!**

# Short-Acting Opioid Options

- ▶ Morphine
- ▶ Codeine
- ▶ Oxycodone
- ▶ Hydromorphone
- ▶ Hydrocodone
- ▶ Tramadol
- ▶ Incident pain
- ▶ Short episodes of activity
  - e.g., physical therapy

# Short-Acting: Morphine

- ▶ OA: 15–60 minutes, PE: 30–60 minutes, DOA: 4–6 hours (SR preparation: 8–12 hours)
- ▶ Moderate to severe pain
- ▶ Morphine-6-glucuronide: active metabolite: renal excretion
- ▶ Morphine-3-glucuronide: metabolite with excitatory effects
- ▶ Medication crosses placenta and is in breast milk

# Short-Acting: Codeine

- ▶ OA: 15–30 minutes, PE: 30–60 minutes, DOA: 3–6 hours
- ▶ Mild to moderate pain
- ▶ Hepatic and renal elimination
- ▶ Prodrug: 10 percent transformed to morphine
- ▶ Medication crosses placenta and is in breast milk

# Short-Acting: Oxycodone

- ▶ OA: 10–15 minutes, PE: 30–60 minutes, DOA: 3–6 hours (SR preparation 8–12 hours)
- ▶ Moderate to severe pain
- ▶ Hepatic and renal elimination
- ▶ Medication crosses placenta and is in breast milk

# Short-Acting: Hydromorphone

- ▶ Seven times more potent than morphine
- ▶ OA: 15–30 minutes, PE: 30–60 minutes, DOA: 4–6 hours
- ▶ Moderate to severe pain
- ▶ Hepatic elimination
- ▶ No active metabolites
- ▶ Medication crosses placenta and is in breast milk

# Short-Acting: Hydrocodone

- ▶ OA: 15–30 minutes, PE: 30–60 minutes, DOA: 4–8 hours
- ▶ Mild to moderate pain
- ▶ Hepatic and renal elimination
- ▶ Medication crosses placenta and is in breast milk

# Short-Acting: Tramadol

- ▶ OA: Less than 1 hour, PE: 2–3 hours, DOA: 3–6 hours
- ▶ Hepatic and renal elimination
- ▶ Mild to moderate pain
- ▶ Medication provides analgesia via at least two mechanisms
  - 30 percent of effect: low binding to opioid receptors
  - 70 percent of effect: mild inh of NE and serotonin reuptake
- ▶ Adverse effects: N/V, constipation, sedation
- ▶ Medication may lower seizure threshold
- ▶ Clinical physical dependence, has abuse potential
- ▶ Medication crosses placenta and is in breast milk

# Long-Acting Opioid Options

- ▶ Slow-release delivery system
  - Transdermal fentanyl
  - Extended-release morphine
  - Extended-release oxycodone
- ▶ Intrinsic pharmacokinetic property
  - Methadone
- ▶ Persistent moderate to severe pain
- ▶ Baseline analgesia

# Long-Acting: Transdermal Fentanyl

- ▶ Medication requires predictable blood flow to dermal application site
- ▶ 25 $\mu$ g = morphine 30–60 mg po = 6–9 oxycodone
- ▶ Takes about 8–14 hours to achieve peak serum levels
- ▶ Removal of patch still leaves SQ reservoir with  $t_{1/2}$  of about 18 hours
- ▶ Absorption altered with fever, broken skin, edema, and decreased subcutaneous fat
- ▶ Medication crosses placenta and is in breast milk

# Long-Acting: Methadone

- ▶ OA: 30–60 minutes, PE: 2–3 hours, DOA: 6–8 hours but  $t_{1/2}$  VARIABLE and UNPREDICTABLE
- ▶ NMDA receptor antagonist
- ▶ 5HT, NE uptake inhibition
- ▶ QTc prolongation, risk of torsades de pointes

# Agonist-Antagonists

- ▶ OA: 15–30 minutes, PE: 1–3 hours, DOA: 3–6 hours
- ▶ Mild to moderate pain
- ▶ Hepatic and renal elimination
- ▶ Analgesia in opioid-naïve patients
- ▶ Precipitated withdrawal in physically dependent patients
- ▶ Psychotomimetic (psychosis) effects

# Drugs That Interact With Opioids

- ▶ PDR lists 73 interactions, some of which are groups.
- ▶ Antiretrovirals have multiple and variable interactions—check before use.
- ▶ CNS depressants have an additive effect.
  - Opioids, anesthetics, sedatives, ethanol
  - Respiratory depression, hypotension, profound sedation, coma
- ▶ The potential exists for serotonin syndrome with SSRIs and tramadol.
- ▶ Grapefruit inhibits methadone metabolism.
- ▶ Smoking induces CYP1A2 and decreases methadone levels.

# Drug Interactions

## Levels reduced by 3A4 inducers:

- ▶ Self-induces its own metabolism
  - 3.5-fold increase in total clearance between first dose and steady state
- ▶ Anticonvulsants
  - Phenytoin, carbamazepine, phenobarbital
- ▶ Antiretrovirals
  - Amprenavir, efavirenz, lopinavir, nelfinavir, nevirapine, ritonavir, zidovudine
- ▶ Other
  - Rifadin, chronic alcohol use

# Drug Interactions continued

## Levels increased by 3A4 inhibitors:

- ▶ Psychotropics
  - Diazepam, fluvoxamine, fluoxetine, sertraline
  
- ▶ Antimicrobials
  - Erythromycin, ciprofloxacin, azole antifungals, clarithromycin, protease inhibitors
  
- ▶ Others
  - Diclofenac, doxycycline, nifedipine, propofol, quinidine, and verapamil, nifedipine, cimetidine, acute alcohol use

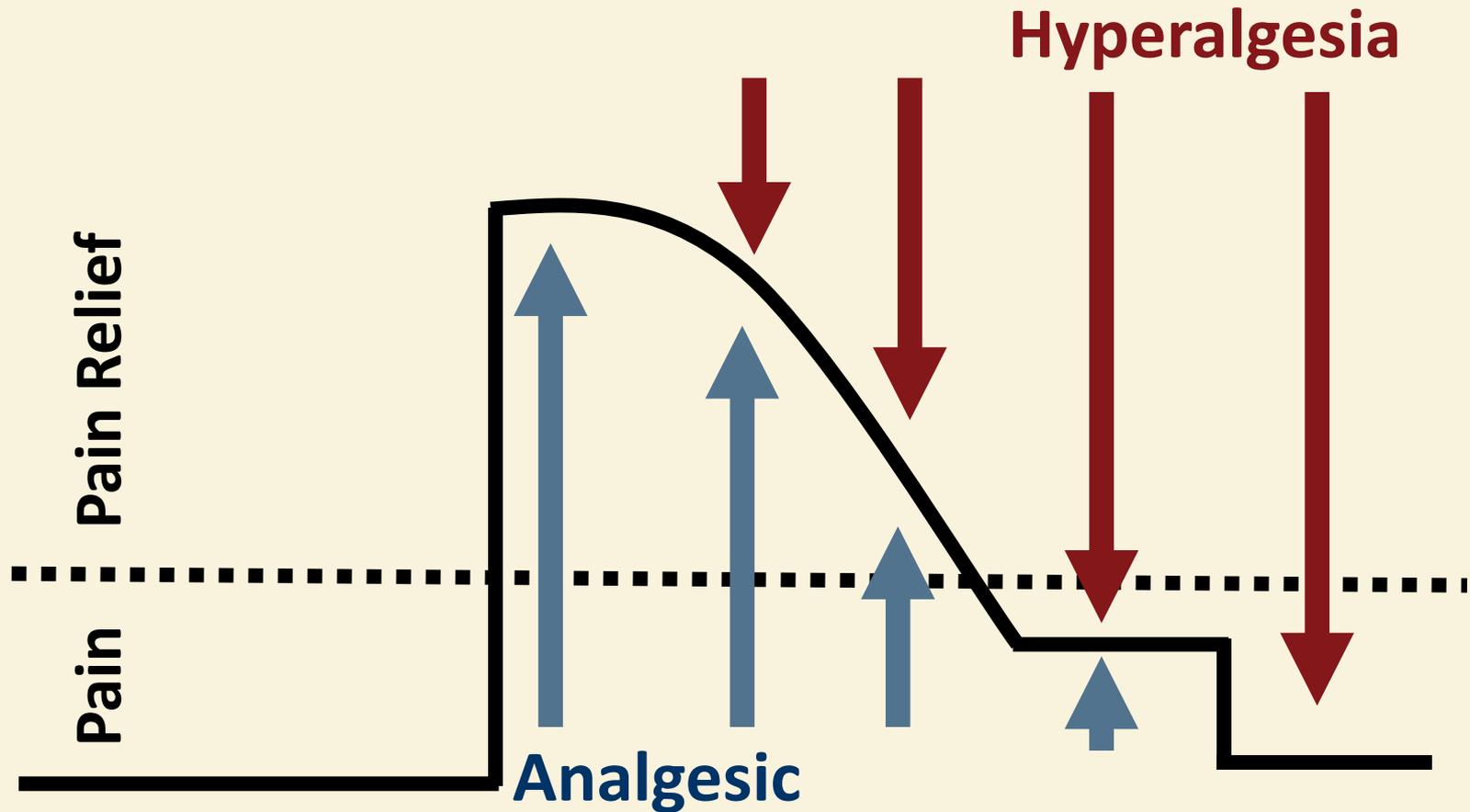
# Pain Alters Opioid Responses

- ▶ Significantly less opioid reward or euphoria<sup>12</sup>
- ▶ Less morphine analgesic tolerance in pain assays<sup>13</sup>
- ▶ Fewer morphine physical withdrawal symptoms<sup>13</sup>
- ▶ Patients on morphine with successful nerve block will develop respiratory and CNS depression<sup>14</sup>

# Can Opioids Worsen Pain?

- ▶ In animal studies, chronic opioid administration resulted in increased pain sensitivity versus placebo.<sup>15</sup>
- ▶ Patients on methadone maintenance show enhanced pain sensitivity versus controls.<sup>16</sup>
- ▶ Does release of peptides, “antiopioids,” increase levels of dynorphin?
- ▶ Does neuroadaptation to chronic opioid administration occur?<sup>17</sup>

# Opioid-Induced Hyperalgesia<sup>18</sup>



# Evidence for the Efficacy of Opioids in Treating Chronic Pain<sup>19, 20, 21, 22</sup>

- ▶ Mostly literature surveys and uncontrolled case series
- ▶ RCTs of short duration (less than 8 months) with small samples (fewer than 300 patients)
- ▶ Mostly pharmaceutical company sponsored
- ▶ Pain relief modest
  - Better analgesia with opioids versus control in all studies (statistically significant)
- ▶ Mixed reports on function
- ▶ Addiction not assessed

# Evidence for **Overall** Efficacy of Opioids in Treating Chronic Pain

## Short-term efficacy:

- ▶ Sixty-two RCTs in a recent meta-analysis, duration less than 16 weeks in 61 of the RCTs<sup>23</sup>
- ▶ Opioids more effective than placebo for nociceptive and neuropathic pain (effect sizes 0.55–0.60)<sup>24</sup>

# Evidence for **Overall** Efficacy of Opioids in Treating Chronic Pain continued<sup>25</sup>

## Long-term efficacy:

- ▶ The Cochrane Review included 26 studies longer than 6 months.
- ▶ Twenty-five studies were case series or uncontrolled long-term trial continuations.
- ▶ Many patients discontinued due to adverse effects (23 percent) or insufficient pain relief (10 percent), but some evidence suggested that patients who continued on opioids experienced long-term pain relief.

# Evidence for the Efficacy of **Specific** Opioids in Treating Chronic Pain

- ▶ Trials generally found no difference between opioids in efficacy, based on short-term trials.
- ▶ There was no clear difference in efficacy between long- and short-acting opioids, but the trials were designed to evaluate equivalence using efficacy designs.<sup>26</sup>

# Evidence for the Efficacy of **Specific** Opioids in Treating Chronic Pain continued

- ▶ There was no evidence to assess the benefits/harm of scheduled, round-the-clock versus as-needed dosing.<sup>27</sup>
- ▶ Long-acting, round-the-clock opioids may induce tolerance, leading to dose escalations.<sup>28</sup>
- ▶ For chronic pain, methadone was evaluated in a single, small, poor-quality trial of neuropathic pain.<sup>28</sup>

# Evidence of the **Risks** of Opioids in Treating Chronic Pain<sup>29</sup>

- ▶ High rates of adverse events
  - Constipation, nausea, sedation, etc.
- ▶ Hyperalgesia
  - Paradoxical increased sensitivity to pain
  - Prevalence, risk factors, and clinical significance not well understood
- ▶ Hypogonadism
  - Primarily based on cross-sectional studies
  - Clinical significance not well understood

# Evidence of the **Risks** of Opioids in Treating Chronic Pain continued<sup>30</sup>

- ▶ Risk of falls and/or fractures
- ▶ Some studies show an increased risk of poor functional outcomes:
  - One study of patients in the Washington State Workers' Compensation system with low back injury found increased risk of disability at 1 year in patients who received opioids within 6 weeks of injury (adjusted OR 2.2, 95 percent 1.5 to 3.1).

# Evidence of the **Risks** of Opioids in Treating Chronic Pain continued

- ▶ The strongest risk factor for opioid abuse was personal or family history of substance abuse.<sup>31</sup>
- ▶ Other risk factors in some studies were depression, younger age, and preadolescent sexual abuse in women.

# Evidence of the **Risks** of Opioids in Treating Chronic Pain continued

- ▶ Risk assessment instruments are available, but none has been well validated.
- ▶ There is no evidence regarding effects on clinical outcomes of using risk assessment instruments to guide patient selection.

# Clinical Implications of the Evidence

- ▶ Available evidence suggests that potential benefits of opioids are at best finely balanced with harms.
  - Risk should be assessed as a standard practice.
  - Risk mitigation strategies should be matched with level of assessed risk and used routinely.
  - Readily available and effective nonopioid treatments for chronic pain, including those addressing psychosocial factors, are urgently needed.

# Summary

- ▶ Opioids are good but not perfect analgesics.
- ▶ Opioids differ.
- ▶ Risks include side effects, overdose, and addiction, but organ toxicity is low.
- ▶ Slow onset and slow offset are less rewarding.
- ▶ Some chronic pain may worsen with chronic opioids.
- ▶ Optimal dose is determined by careful titration and monitoring.
- ▶ Exploit synergies with nonpharmacologic therapies through a comprehensive treatment plan.

# References

- <sup>1</sup>Gaskin, D. J., & Richard, P. (2012). The economic costs of pain in the United States. *The Journal of Pain*, 13(8), 715-724
- <sup>2</sup>Centers for Disease Control and Prevention, National Center for Health Statistics. (2006, November 15). *New report finds pain affects millions of Americans* [Press release]. Retrieved on May 26, 2015, from <http://www.cdc.gov/nchs/pressroom/06facts/hus06.htm>
- <sup>3</sup>Task Force on Taxonomy, International Association for the Study of Pain. (1994). *Classification of chronic pain*. (2nd ed.). In H. Merskey & N. Bogduk (Eds.). Seattle, WA: IASP Press.
- <sup>4</sup>Institute of Medicine, Committee on Pain, Disability, and Chronic Illness Behavior. (1987). *Pain and disability: Clinical, behavioral, and public policy perspectives*. M. Osterweis, A. Kleinman, & D. Mechanic (Eds.). Washington, DC: National Academy Press.
- <sup>5</sup>Woolf, C. J. (2004). Pain: Moving from symptom control toward mechanism-specific pharmacologic management. *Annals of Internal Medicine*, 140(6), 441-451.
- <sup>6</sup>Cherny, N. I. (1996). Opioid analgesics: Comparative features and prescribing guidelines. *Drugs*, 51(5), 713-737.
- <sup>7</sup>Ballantyne, J. C., & Mao, J. (2003). Medical progress: Opioid therapy for chronic pain. *New England Journal of Medicine*, 349(20), 1943-1953.
- <sup>8</sup>Rahim, R. T., Adler, M. W., Meissler, Jr., J., Cowan A., Rogers T. J., Geller, E. B., Eisenstein, T. K. (2002). Abrupt or precipitated withdrawal from morphine induces immunosuppression. *Journal of Neuroimmunology*, 127 (1-2), 88-95.

# References continued

- <sup>9</sup>Abs, R., Verhelst, J., Maeyaert, J., Van Buyten, J. P., Opsomer, F., Adriaensen, H., Verlooy, J., Van Havenbergh, T., Smet, M., & Van Acker, K. Endocrine consequences of long-term intrathecal administration of opioids. *Journal of Clinical Endocrinology & Metabolism*, 85(6), 2215-2222.
- <sup>10</sup>U.S. Food and Drug Administration. (November 2006). *FDA alert: Death, narcotic overdose, and serious cardiac arrhythmia*. Retrieved on May 26, 2014, from <http://www.fda.gov/downloads/Drugs/DrugSafety/PostmarketDrugSafetyInformationforPatientsandProviders/UCM142839.pdf>
- <sup>11</sup>National Institute on Drug Abuse. *NIDA public alert: Methadose™ Oral Concentrate (methadone hydrochloride oral concentrate USP) and Methadose™ Sugar-Free Oral Concentrate*. NDA 17-116/S-021. Retrieved on May 26, 2015, from [http://www.accessdata.fda.gov/drugsatfda\\_docs/label/2008/017116s021lbl.pdf](http://www.accessdata.fda.gov/drugsatfda_docs/label/2008/017116s021lbl.pdf)
- <sup>12</sup>Zacny, J. P., McKay, M. A., Toledano, A. Y., Marks, S., Young, C. J., Klock, P. A., & Apfelbaum, J. L. (1996). The effects of a cold-water immersion stressor on the reinforcing and subjective effects of fentanyl in healthy volunteers. *Drug and Alcohol Dependence*, 42(2), 133-142.
- <sup>13</sup>Vaccarino, L. (1999). Tolerance to morphine analgesia: Basic issues to consider. *Pain Forum*, 8(1), 25-28.
- <sup>14</sup>Vaccarino, A., Nores, W., Soignier, R., & Olson, R. (1997). The role of corticosterone in the blockade of tolerance to morphine analgesia by formalin-induced pain in the rat. *Neuroscience Letters*, 232(3), 139-142.
- <sup>15</sup>Li, X., Angst, M. S., & Clark, J. D. (2001). A murine model of opioid-induced hyperalgesia. *Molecular Brain Research*, 86(1-3), 56-62.

# References continued

- <sup>16</sup> Doverty, M., White, J. M., Somogyi, A. A., Bochner, F., Ali, R., & Ling, W. (2001). Hyperalgesic responses in methadone maintenance patients. *Pain, 90*(1-2), 91-96.
- <sup>17</sup> Angst, M. S., & Clark, J. D. (2006). Opioid-induced hyperalgesia: A qualitative systematic review. *Anesthesiology, 104*(3), 570-587.
- <sup>18</sup> Compton, P. (November 2013). *Neurobiology of pain and addiction: Implications for patients with chronic pain and addictive disorders* [PowerPoint slide 12]. Retrieved on May 29, 2015, from <http://www.amersa.org/2013PlenaryPresentations.asp>
- <sup>19</sup> Ballantyne, J. C., & Mao, J. (2003). Medical progress: Opioid therapy for chronic pain. *New England Journal of Medicine, 349*(20), 1943-1953.
- <sup>20</sup> Kalso, E., Edwards, J. E., Moore, R. A., & McQuay, H. J. (2001). Opioids in chronic non-cancer pain: Systematic review of efficacy and safety. *Pain, 112*(3), 372-380.
- <sup>21</sup> Eisenberg, E., McNicol, E. D., & Carr, D. B. (2005). Efficacy and safety of opioid agonists in the treatment of neuropathic pain of nonmalignant origin: Systematic review and meta-analysis of randomized controlled trials. *Journal of American Medical Association, 293*(24), 3043-3052.
- <sup>22</sup> Furlan, A. D., Sandoval, J. A., Mailis-Gagnon, A., & Tunks, E. (2006). Opioids for chronic noncancer pain: A meta-analysis of effectiveness and side effects. *Canadian Medical Association Journal, 174*(11), 1589-1594.
- <sup>23</sup> Furlan, A. D., Chaparro, L. E., Irvin, E., & Mailis-Gagnon, A. (2011). A comparison between enriched and nonenriched enrollment randomized withdrawal trials of opioids for chronic noncancer pain. *Pain research and Management, 16*(5), 337-351.

# References continued

- <sup>25</sup>Furlan, A., Chaparro, L. E., Irvin, E., & Mailis-Gagnon, A. (2011). A comparison between enriched and nonenriched enrollment randomized withdrawal trials of opioids for chronic noncancer pain. *Pain Research and Management, 16*(5):337-351.
- <sup>25</sup>Noble, M., Treadwell, J. R., Tregear, S. J., Coates, V. H., Wiffen, P. J., Akafomo, C., & Schoelles, K. M. (2010). Long-term opioid management for chronic noncancer pain. *Cochrane Database of Systematic Reviews*(1): CD006605.
- <sup>26</sup>Carson, S., Thakurta, S., Low, A., Smith, B., & Chou, R. (July 2011). *Drug class review: Long-acting opioid analgesics, Final update 6 report*. Portland, OR: Oregon Health & Science University. Retrieved on May 26, 2015, from <http://derp.ohsu.edu/about/final-document-display.cfm>
- <sup>27</sup>Ibid
- <sup>28</sup>Morley, J. S., Bridson J., Nash, T. P., Miles, J. B., White, S., & Makin, M. K. (2003). Low-dose methadone has an analgesic effect in neuropathic pain: A double-blind randomized controlled crossover trial. *Journal of Palliative Medicine, 17*(7), 576-587.
- <sup>29</sup>Franklin, G. M., Stover, B. D., Turner, J. A., Fulton-Kehoe, D., Wickizer, T. M. (2008). Early opioid prescription and subsequent disability among workers with back injuries: The Disability Risk Identification Study Cohort. *Spine, 33*(2), 199-204.
- <sup>30</sup>Ibid
- <sup>31</sup>Chou R., Fanciullo G. J., Fine, P. G., Adler, J. A., Ballantyne, J. C., Davies, P., Donovan, M.I., . . . Miaskowski, C. (2009). Clinical guidelines for the use of chronic opioid therapy in chronic noncancer pain. *Journal of Pain, 10*(2), 113-130.



# Assessing Risk, Educating the Patient, and Initiating Treatment



# Risks and Dilemmas for Clinicians

- ▶ How not to **overlook drug abuse** in the midst of a busy practice
- ▶ How not to **stigmatize or exclude** potential patients who need these medications for “legitimate” conditions, to avoid undertreating pain
- ▶ How to deal with the discomfort of not wanting to get “**scammed**” and not wanting to be put in the role of “**cop**”
- ▶ How not to have to worry about running afoul of the **Medical Board or the Drug Enforcement Administration**

# Standard: Have a Clear Clinical Indication for Pain Management With Opioids

- ▶ Indications for opioid pain management have evolved.
- ▶ Traditionally limited to:
  - Acute pain syndromes
  - Pain associated with malignancy (palliative care)
- ▶ Current expanded use includes:
  - Chronic nonmalignant pain (CNMP)

# Standard: Perform a Risk Assessment To Identify Patients at Increased Risk

- ▶ Adequate history and physical exam
- ▶ Standardized instruments
  - Alcohol, Smoking and Substance Involvement Screening Test (ASSIST)
  - Alcohol Use Disorders Identification Test (AUDIT)
  - Opioid Risk Tool (ORT)
- ▶ Release of Information and contacts with prior or current providers
- ▶ Prescription Drug Monitoring Program (PDMP)
- ▶ Discussion with family or significant other

# Role and Consequences of Risk Assessment for Initial Treatment Planning

- ▶ Whether or not to use opioids or other controlled drugs
- ▶ Whether to treat or refer the patient
- ▶ Ancillary treatment expectations
  - Psychotherapy
  - Substance use counseling
  - Adjunctive pain management strategies
- ▶ Frequency of drug screening, PDMP checks, and family contact
- ▶ Frequency of office visits and refills

# Standard: Use a Written Treatment Agreement or Adequate Informed Consent

## ► Benefits and caveats

- Is associated with reductions in aberrant drug-taking behavior<sup>1</sup>
- Should put focus on good care but set monitors for early recognition of aberrant behaviors
- Should clarify boundaries but avoid absolutist language
- Should stress mutual responsibility
  - Outline patient responsibilities
  - Ensure access to medication

# Elements of Informed Consent

- ▶ Treatment goals
  - Pain management
  - Functional improvement
    - Work/family life/recreational
    - Quality of life/activity level
    - Affect normalization
- ▶ Treatment components
  - Multimodal
- ▶ Monitoring expectations to demonstrate:
  - Efficacy
  - Safety/aberrant behaviors



# Treatment Agreements: Other Common Elements

- ▶ Only one physician/practice prescribes.
- ▶ Patient uses only one pharmacy.
- ▶ Patient does not change dose without prior discussion with physician.
- ▶ A clear policy on refills is included.
- ▶ Patient agrees to consultations as needed.
- ▶ Patient does not use illegal drugs.
- ▶ Patient agrees to urine drug testing and/or pill counts.
- ▶ Patient identifies a responsible person to confirm behavior related to medication use.

# Discuss Opioids as a **Therapeutic Trial**

- ▶ Review the reasons that opioids may help but are imperfect treatments for chronic pain.
- ▶ Review what the patient can realistically expect to do with treatment that she or he cannot do now.
- ▶ Focus on specific goals for the next visit.
- ▶ Jointly decide how to measure that treatment is helping.
- ▶ Offer all prescriptions/changes as a “test” of the medication.

# Discuss Potential Opioid Benefits

- ▶ Clearly link continuation of opioids to demonstration of benefit.
  - Helps patient set realistic expectations in terms of increased activity and function
  - Reduces the need to prove that pain is “terrible”
    - No: “I still have pain, so I need more hydrocodone.”
    - Yes: “My meds allow me to do X, so it is worth it to me to keep taking them.”

# Discuss Potential Opioid Risks

- ▶ Discuss risks, including sedation, constipation, physical dependence, overdose, and addiction.
  - Be careful about distinction between dependence and addiction
  - Assign responsibility to look out for early signs of harm
  - Discuss need for additional level of monitoring
    - Pill counts, drug tests, etc., as ways to help protect patient from harm from medications
    - So clinician can continue to feel safe prescribing them

# Educate the Patient and the Family

- ▶ Risks with new medications
  - Warn about driving/operating machinery
  - Discuss interaction with sedatives
  - Caution against taking over-the-counter medication without discussion
  - Check for other possible drug interactions
  
- ▶ Educate regarding signs of overdose and steps to take
  - Explain urgent versus emergent
  - Consider naloxone nasal spray
  
- ▶ Safety and security of medication
  - Prevent access by children and teens
  - Dispose properly of excess

# Evaluate Opioid Options

- ▶ Strong versus weak (ceiling effect)
- ▶ Duration and onset of action
  - “Rate hypothesis” —fast on, fast off —most addicting
- ▶ Patient’s prior experience
  - Mu polymorphisms—differences in opioid responsiveness
- ▶ Route of administration
- ▶ Side effects and cost

**There are NO opioids or opioid formulations that cannot be abused!**

# Standard: Conduct Regular Monitoring and Adjust Treatment as Needed<sup>2</sup>

▶ Do regular assessment of the 5 A's:

- Analgesia/Anxiety
- Activity/function
- Adverse effects
- Aberrant behaviors
- Affect

A's

▶ Identify and reinforce at start of treatment; a toxicology screen should be part of the patient's assessment to screen for use of drugs

▶ Use patient report and ancillary information to monitor and adapt treatment as needed

# Elements of Patient Care That Require Documentation<sup>3</sup>

- ▶ History and physical evaluation
- ▶ Diagnosis and clinical indication for prescribing opioids
- ▶ Patient's informed consent and agreement for treatment
- ▶ Treatment plan
- ▶ Monitoring/periodic review
- ▶ Consultation and referrals



# Summary

- ▶ When considering prescribing controlled medications for chronic conditions:
  - Use to treat CNMP, acute pain, and pain associated with malignancy (palliative care)
  - Perform a risk assessment to identify patients at increased risk
  - Use a written treatment agreement or adequate informed consent
  - Conduct regular monitoring and adjust treatment as needed

# References

- <sup>1</sup>Manchikanti, L. (2006). Prescription drug abuse: What is being done to address this new drug epidemic? Testimony before the Subcommittee on Criminal Justice, Drug Policy and Human Resources. *Pain Physician*, 9(4), 287-321.
- <sup>2</sup>Passik, S. D., & Weinreb, H. J. (2006). Managing chronic nonmalignant pain: Overcoming obstacles to the use of opioids. *Advances in Therapy*, 17(2), 70-83.
- <sup>3</sup>Nicholson, B., & Passik, S. D. (2007). Management of chronic noncancer pain in the primary care setting. *Southern Medical Journal*, 100(10), 1028-1036.



# Monitoring Patient Progress



# Why Monitor in Clinical Practice?

- ▶ To determine whether your intervention/treatment plan is producing improvement
- ▶ To adjust the treatment plan for:
  - Patient variability
  - Increased/maximized efficacy
- ▶ To identify side effects/toxicity
- ▶ To stop or substantially change the treatment if it is producing harm

# Discussing Monitoring With the Patient

- ▶ Discuss the risks of opioid medications.
- ▶ Discuss agreements, pill counts, drug tests, etc., as ways to protect the patient from harm (statin—LFTs monitoring analogy).
- ▶ Use a consistent approach, but set the level of monitoring to match the patient's level of risk.

# Monitor When Initiating Treatment

- ▶ Identify a clear diagnosis.
- ▶ Document an adequate workup.
- ▶ Ensure that nonopioid therapy failed or is not appropriate (treatment rationale).
- ▶ Identify the anticipated outcome (treatment goal).
- ▶ Use an **Informed Consent Form**.
- ▶ Consult (possibly) with a physician who is expert in the organ system or disorder involved.

# Ask the Patient to Demonstrate Progress

- ▶ Bring in family members
- ▶ Show a gym membership card
- ▶ Describe an exercise program
- ▶ Show that he/she is obtaining needed support

# Monitor for Functional Improvement<sup>1</sup>

- ▶ Analgesia: pain level 0–10 but subjective
- ▶ Affect: Beck Depression Inventory, Zung, Hamilton Depression Rating Scale
- ▶ Activity level: Pain Disability Index, Oswestry
- ▶ Adverse effects: cognition, alertness, depression
- ▶ Aberrant behaviors: multisourcing, lost drugs

If not effective, change or



# Monitor for Side Effects

## Short-term side effects:

- ▶ CNS: euphoria, anxiety, miosis, sedation
- ▶ Respiratory: respiratory depression and overdose
- ▶ CV: hypotension, edema
- ▶ GI: anorexia, vomiting



## Long-term side effects:

- ▶ Sleep disturbance, including obstructive sleep apnea
- ▶ Decreased testosterone, libido
- ▶ QTc prolongation
- ▶ Constipation
- ▶ Urinary retention
- ▶ Sweating
- ▶ Depression and other psychiatric comorbidities

# Monitor for Misuse—Universal Precautions<sup>2</sup>

- ▶ Make a diagnosis with an appropriate differential.
- ▶ Conduct a patient assessment, including risk for substance use disorders.
- ▶ Discuss the proposed treatment plan with the patient and obtain informed consent.
- ▶ Have a written treatment agreement that sets forth the expectations and obligations of both the patient and the treating physician.
- ▶ Initiate an appropriate trial of opioid therapy, with or without adjunctive medications.
- ▶ Perform regular assessments of pain and function.

# Monitor for Misuse—Universal Precautions continued<sup>2</sup>

- ▶ Reassess the patient's pain score and level of function.
- ▶ Regularly evaluate the patient in terms of the “5 A’s.”
  - Analgesia
  - Activity
  - Adverse effects
  - Aberrant behaviors
  - Affect
- ▶ Periodically review the pain diagnosis and any comorbid conditions, including substance use disorders, and adjust the treatment regimen accordingly.
- ▶ Keep careful and complete records of the initial evaluation and each followup visit.

A's

# Keys to Patient Acceptance of Universal Precautions

- ▶ Conduct a biopsychosocial assessment of the patient.
- ▶ Discuss symptoms and history in a nonjudgmental way.
- ▶ Reduce the patient's fear or anxiety level.

# Use of Urine Toxicology as Part of Patient Monitoring

- ▶ Urine should contain the prescribed drug(s).
  - If not, the patient may be diverting or providing a fake sample to cover other substances.
  - Know what your urine drug screen is capable of detecting.
- ▶ Urine should be free of nonprescribed substances.
  - If test results detect illicit or other drug misuse, results should be discussed with the patient in a supportive fashion, and the discussion and treatment interventions should be documented in the medical record.<sup>2</sup>

# Urine Toxicology in Monitoring

- ▶ Test for what you are seeking.
  - Immunoassays typically miss synthetics and semisynthetics—**SO ASK FOR THEM!**
  - GC/MS detects these but is expensive.
  - You may need to specify the compounds sought (e.g., methadone).
- ▶ Use “therapeutic drug monitoring” codes.
  - Treat the test clinically like a Digoxin or aminophylline level.

# Urine Toxicology in Monitoring

## continued

- ▶ Testing should be random.
- ▶ Testing should be routine **AND** “for cause.”
  - Open to biases (e.g., disproportionate testing of minorities)
  - Misses 50 percent of those using unprescribed or illicit drugs<sup>3</sup>
- ▶ Excellent review of urine drug testing available in online monograph<sup>4</sup>

# Opioid Risk Monitoring: COMM™

## Current Opioid Misuse Measure

- ▶ A patient self-administered, validated questionnaire
- ▶ Seventeen items, takes about 10 minutes to complete
- ▶ It is helpful in deciding on level of monitoring
- ▶ It is NOT a lie detector!
- ▶ Key elements: oversedation, consequences of overuse, multiple prescribers, medication misuse, active mental health issues, compulsive use, obtaining meds from someone else, loss of control

# Practical Advice: How Not to Go Broke Obeying the Rules

- ▶ Practitioners may find the requirements for monitoring and documenting onerous.
- ▶ Potential unfortunate responses:
  - Ignore the rules
  - Stop providing the service
- ▶ Option:
  - You can use quick forms that patients can complete while waiting in less than 5 minutes.
  - You can review the forms and enter them in the chart in less than 1 minute.

# Use a Systems Approach

- ▶ Engage the office staff in monitoring.
  - Have the receptionist:
    - Document the patient's followup with lab testing.
    - Verify that lab results have been received.
    - Determine whether patients have followed through with physical therapy, consultations, etc.
    - Track the frequency of followup office visits.
- ▶ Have the nursing staff monitor prescription refills and other clinical information.

# Summary: Use a Monitoring Strategy When Prescribing Opioids

- ▶ Document functional improvement.
- ▶ Titrate opioids to improved function.
- ▶ Monitor medications (pill counts).
- ▶ Use urine testing as indicated.
- ▶ Document monitoring results.
- ▶ Adjust the treatment plan as needed.

# References

- <sup>1</sup>Passik, S. D., & Weinreb, H. J. (2006). Managing chronic nonmalignant pain: Overcoming obstacles to the use of opioids. *Advances in Therapy*, 17(2), 70-83.
- <sup>2</sup>Federation of State Medical Boards (July 2013). *Model policy on the use of opioid analgesics in the treatment of chronic pain*. Euless, TX: Author.
- <sup>3</sup>Katz, N., Sherburne, S., Beach, M., Rose, R., Vielguth, J., Bradley, J., & Fanciullo, G. (2003). Behavioral monitoring and urine toxicology testing in patients receiving long-term opioid therapy. *Anesthesia & Analgesia*, 97(4), 1097-1102.
- <sup>4</sup>Gourlay, D., Heit, H. A., & Caplan Y. H. (2006). *Urine drug testing in primary care: Dispelling the myths and designing strategies*. Stamford, CT: PharmaCom Group, Inc.



# Case 1: A 41-Year-Old Man With Back Pain



# Part 1: Initial Visit



# Initial Visit

## ▶ ID

- Mr. Smith is a married, 41-year-old electrician with three children.
- He presents from your recently retired senior colleague's patient panel with a CC of "need my back pain prescriptions refilled (SR morphine), and they are not working as well anymore."

# Initial Visit continued

## ▶ HPI

- Low back pain off and on for more than 12 years, chronic in nature for past 6 years
- Vague radiation from the R L/S region to the right upper thigh
- Pain worsened by lifting and bending, interfering in the past with ability to work

# Initial Visit continued

## ▶ HPI

- Normal neurological exam
- L/S MRI from 3 years PTA with mild degenerative changes; ortho evaluation at the time indicated no intervention was indicated
- Patient reports he tried physical therapy on two occasions without improvement

# Clinical Decision Point

1. What are your clinical options at this point?
2. What would you choose to do, and why?



# Part 2: Followup



# Monitoring

- ▶ You choose to increase your monitoring of Mr. Smith, with a urine drug screen at each monthly visit.
- ▶ You check with the PT program and learn that Mr. Smith did not have any PT visits after the initial assessment and the first followup session.
- ▶ Mr. Smith says he did not follow up with PT because “they said he was done...and they were not teaching anything new.”

# Monitoring continued

- ▶ After 10 weeks, you have the staff call the patient back for a medication check between regularly scheduled visits.
- ▶ Mr. Smith refuses to come to the office, stating that “the call-back provision was not in the contract he signed.”

# Intervention

- ▶ The next day, you call Mr. Smith and remind him that the informed consent form indicated that to keep himself safe and functioning, he agreed to follow through on anything that was part of his treatment plan.
- ▶ You advise him that the call-back appointments are now part of his treatment plan because of the toxicology test results.

# Intervention continued

- ▶ Mr. Smith reluctantly agrees to come in and bring the rest of the prescribed medications.
- ▶ When he arrives, the number of sustained-release morphine tablets is below what was expected.
- ▶ His urine drug screen is positive for nonprescribed benzodiazepines, hydromorphone, and THC (marijuana).

# Clinical Decision Point

## ▶ Responding to “red flags”



Red Flags

1. What are your clinical options at this point?
2. What would you choose to do, and why?

# Prescription Drug Monitoring Programs<sup>1</sup>

- ▶ State-instituted programs
- ▶ Prescription drug monitoring programs (PDMPs) provide electronic access to history of prescribed (and filled) scheduled drugs
  - Required pharmacy data reporting
- ▶ States vary in program design:
  - Reporting of Schedule II only or II–IV
  - Real-time or delayed data reporting
  - Response to inquiries—reactive or proactive
- ▶ Safeguards for patient confidentiality

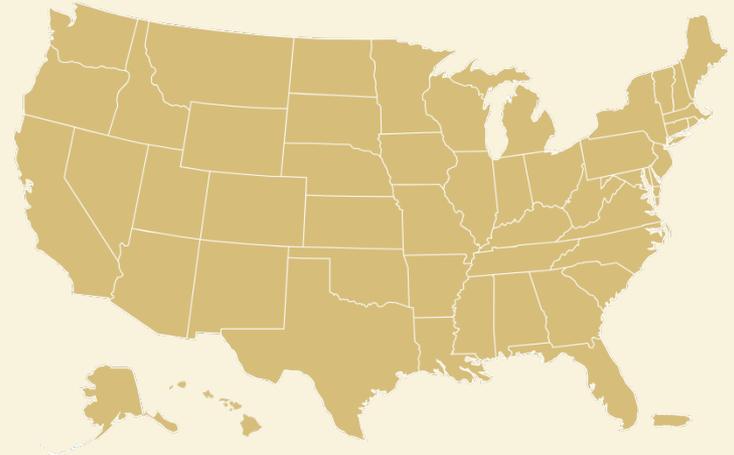


# Prescription Drug Monitoring Programs<sup>2</sup>

▶ PDMPs are operational in 49 states and the District of Columbia.

▶ State laws vary on:

- Interstate sharing of information
- Authorized recipients
- Notification of reporting to consumers
- Obligations by providers to access the PDMP
- Which agencies oversee the PDMP

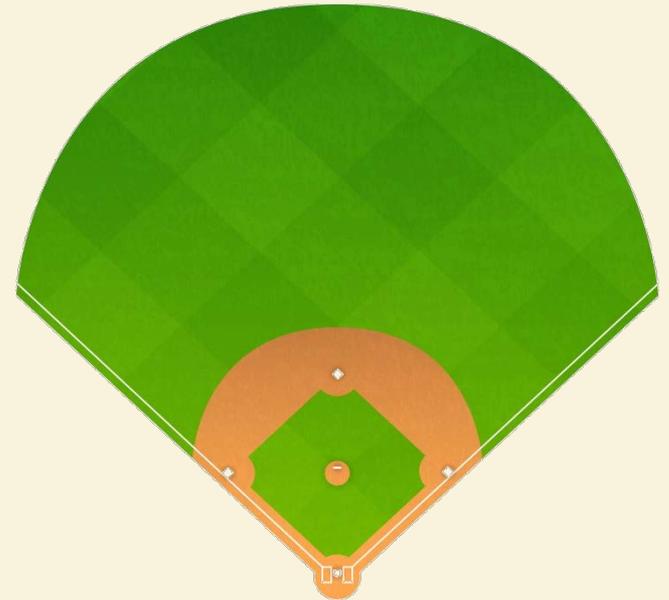


# What Are Best Practices for PDMPs?

- ▶ State variability and underutilization of PDMPs complicate efforts to measure effective practices.<sup>3</sup>
- ▶ The CDC has identified promising features:<sup>4</sup>
  - Universal use policies in certain circumstances
  - Real-time data submission from pharmacies
  - Active management of PDMPs to send proactive reports to authorized users to protect high-risk patients and identify problematic prescribing trends
  - Easy access and use by integration into EHRs and allowing PDMP access and registration to allied health professionals with physician permission

# Results From the Field<sup>5</sup>

- ▶ In 2012, New York required prescribers to check the PDMP before prescribing painkillers, resulting in a 75 percent drop in patients seeing multiple prescribers for the same drugs.
- ▶ Also in 2012, Tennessee introduced the same requirement, resulting in a 36 percent decline in patients seeing multiple prescribers for the same drugs.



# References

- <sup>1</sup>United States Department of Justice, Drug Enforcement Administration, Office of Diversion Control. (Updated 2011, October). *State prescription drug monitoring programs: Questions & answers*. Retrieved from [http://www.deadiversion.usdoj.gov/faq/rx\\_monitor.htm](http://www.deadiversion.usdoj.gov/faq/rx_monitor.htm)
- <sup>2</sup>National Alliance for Model State Drug Laws. (2014). *Annual review of prescription monitoring programs*. Retrieved from <http://www.namsdl.org/prescription-monitoring-programs.cfm>
- <sup>3</sup>Prescription Drug Monitoring Program Center of Excellence, Brandeis University. (2012, September 20). *Prescription drug monitoring programs: An assessment of the evidence for best practices*. Retrieved from [http://www.pdmpexcellence.org/sites/all/pdfs/Brandeis\\_PDMP\\_Report.pdf](http://www.pdmpexcellence.org/sites/all/pdfs/Brandeis_PDMP_Report.pdf)
- <sup>4</sup>Centers for Disease Control and Prevention. (2015). *What States need to know about PDMPs*. Retrieved from <http://www.cdc.gov/drugoverdose/pdmp/states.html>
- <sup>5</sup>Prescription Drug Monitoring Program Center of Excellence, Brandeis University. (2014). *Mandating PDMP participation by medical providers: Current status and experience in selected states* [COE briefing]. Retrieved from [http://www.pdmpexcellence.org/sites/all/pdfs/COE\\_briefing\\_mandates\\_2nd\\_rev.pdf](http://www.pdmpexcellence.org/sites/all/pdfs/COE_briefing_mandates_2nd_rev.pdf)



# Maine Prescription Monitoring Program (PMP)

*Using the PMP to Improve Patient Care*

[www.maine.gov/pmp](http://www.maine.gov/pmp)

**John Lipovsky, MPPM, AREM, PMM**  
**Prescription Monitoring Program Coordinator**  
**Office of Substance Abuse and Mental Health**  
**Maine, Department of Health and Human Services (DHHS)**

# The Maine PMP Database

- Database contains records of all schedule II – IV drugs dispensed in Maine.
- Data is provided daily from pharmacies.
- The database is available online for free.
- Patient and prescriber history reports are available.
- Automatic threshold reports are sent routinely.

# How It Works

- Records in the PMP are not public information.
- Prescribers, pharmacists, and their appointed delegates can access the PMP.
- Patient confidentiality rules apply.
- Penalties are levied for misuse.
- PMP is a standard tool to provide better patient care.

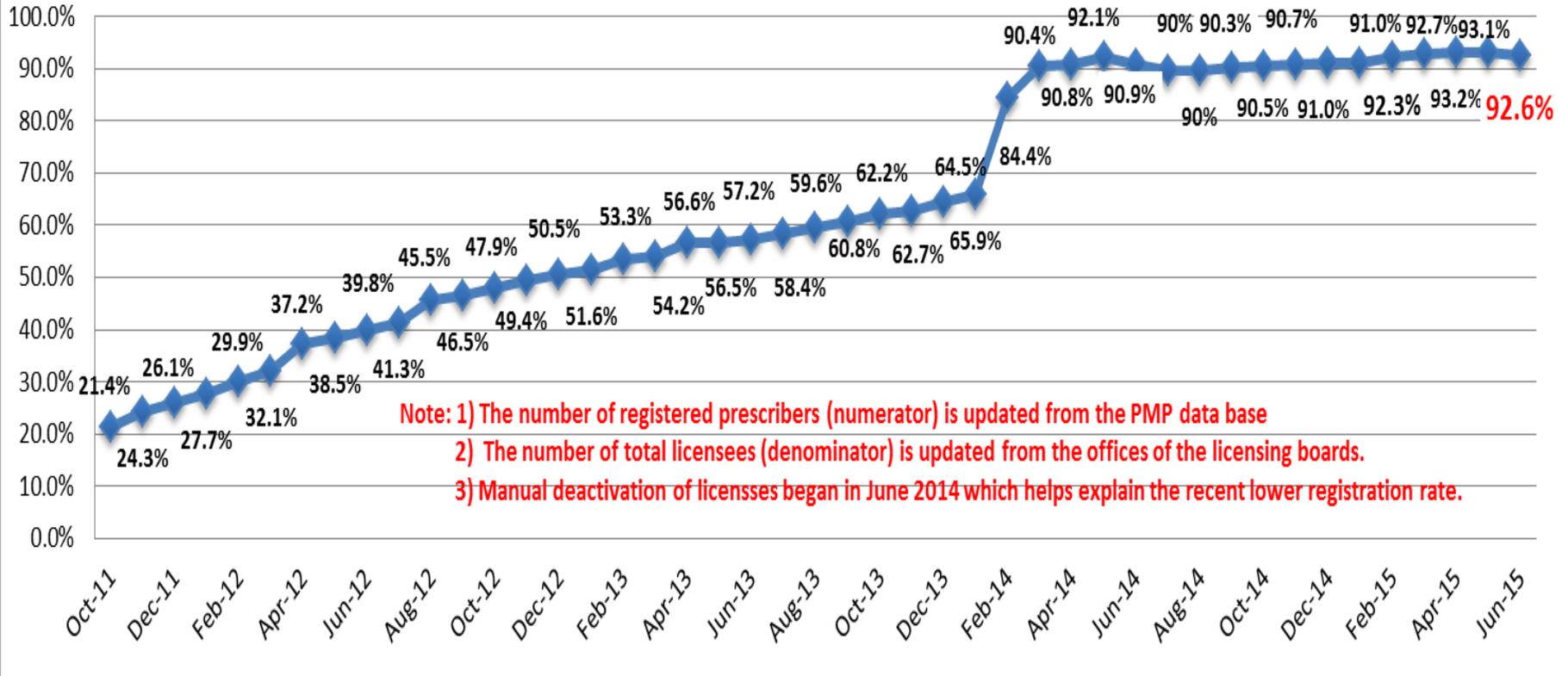
# PMP Healthcare Goals

- Improve patient care
- Reduce misuse, abuse, and diversion of prescription drugs
- Decrease the number of prescription drug overdoses

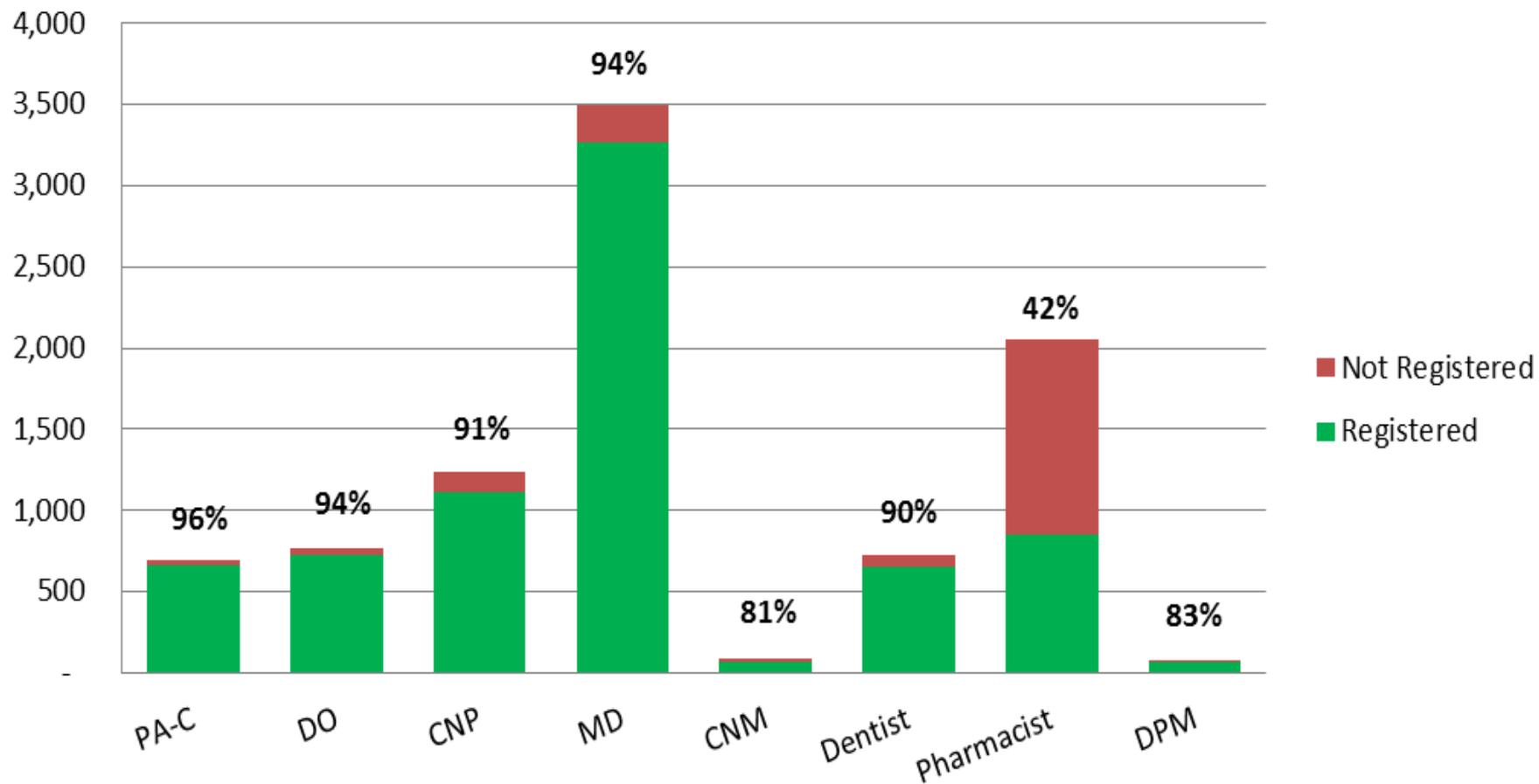
# Unsolicited Threshold Reports

- Acetaminophen threshold
  - Average daily dose of 4 grams or more within 90 days.
- Pharmacy/prescriber
- Concurrent use of buprenorphine and narcotics
- Multiple opioid prescriptions
- Morphine milligram equivalent threshold

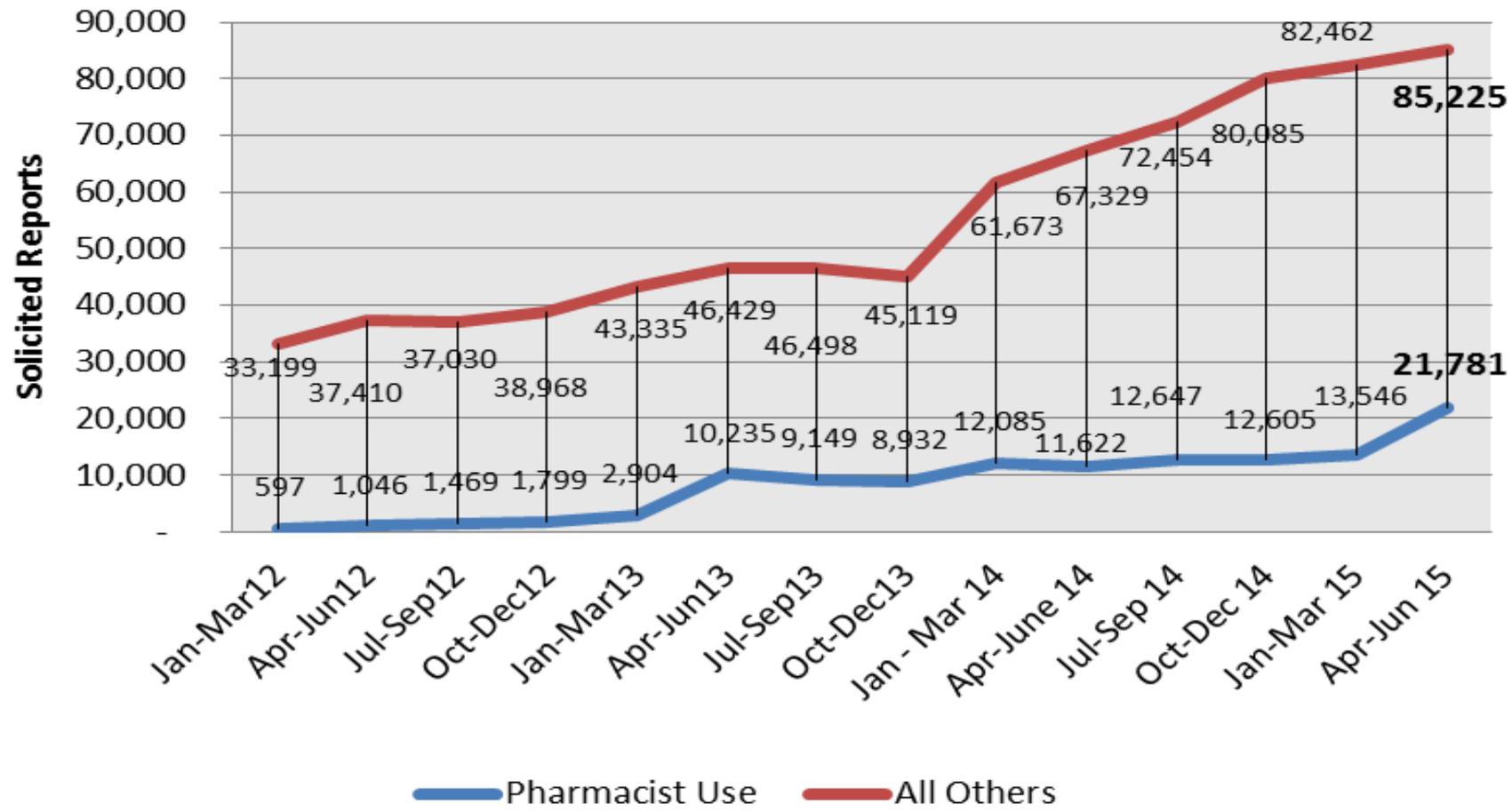
### ME PMP Prescriber registration through June 2015



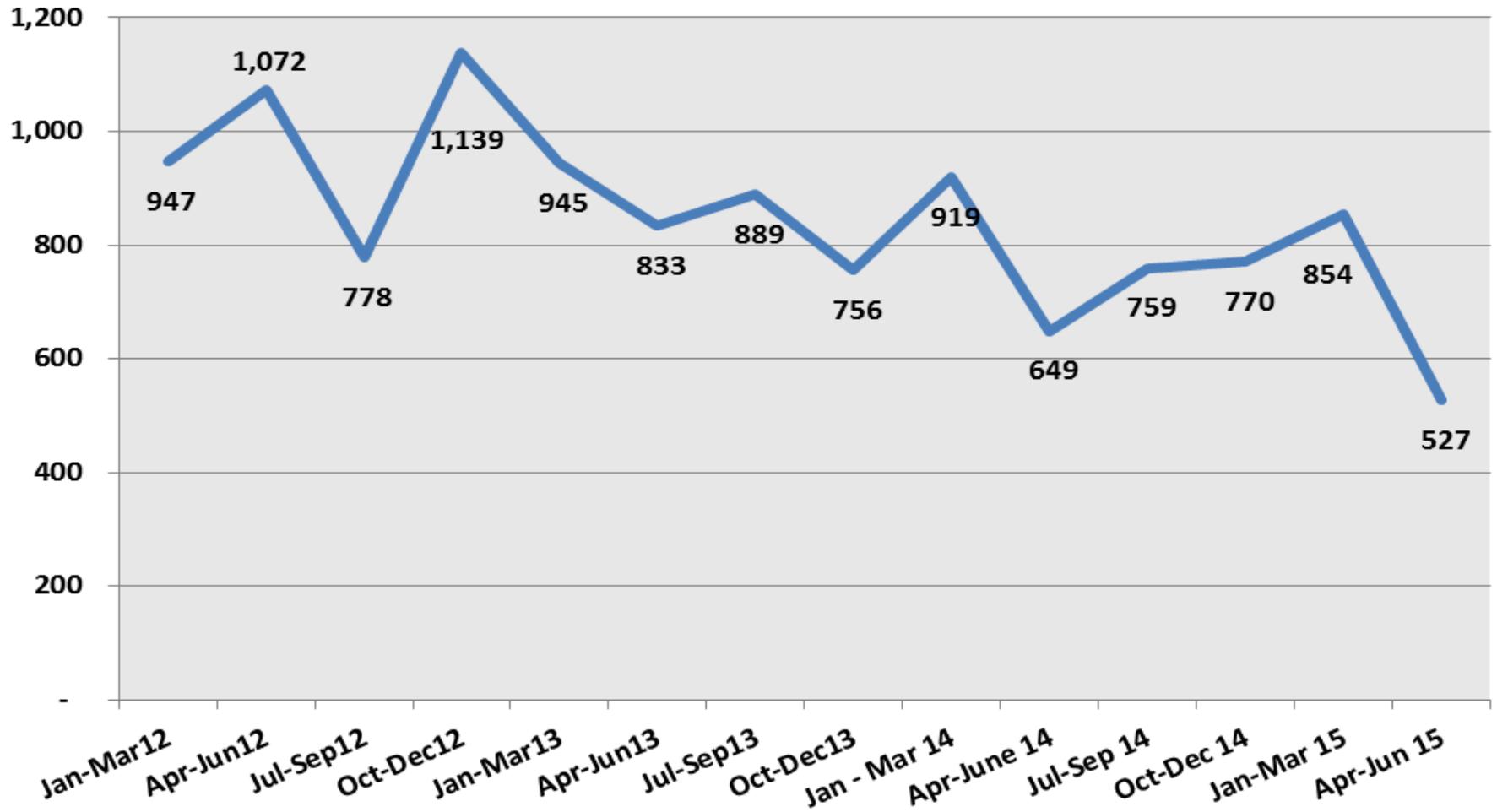
## PMP Registration by License type - June 2015



### Total PMP Reports Utilized 2012-2015



## Unsolicited Threshold Reports Generated 2012-2015



## Single Sign-On Access from HealthInfoNet to the PMP

- PMP is accessible directly from the HealthInfoNet (HIN) clinical portal through a single-sign-on process.
  - Easier access to comprehensive patient data
  - Efficient patient treatment
- Sign Up
  - Request access through the HIN portal using the “Request for Access” link on the links menu
  - Contact HealthInforNet at [customer care@hinfonet.org](mailto:customer care@hinfonet.org) or 207-541-9250

# Changes to the Maine PMP

- Weekly data uploads changed to daily uploads by pharmacies in July 2015 .
- Automatic PMP registration for prescribers and online registration for non-prescribing professionals
- New PMP enhancements for easier queries and reports

# Conclusion

- Use the PMP to enhance patient care
- Help reduce prescription drug overdose, abuse, and misuse.
- Refer patients to substance abuse treatment
- Visit [www.maine.gov/pmp](http://www.maine.gov/pmp) to register and obtain more information
- USE the PMP!

# Questions?

<http://www.maine.gov/pmp>

**John Lipovsky**

**Prescription Monitoring Program Coordinator**

**(207) 287-3363**

[John.lipovsky@maine.gov](mailto:John.lipovsky@maine.gov)

**Anne Rogers**

**Data and Research Manager**

[Anne.Rogers@maine.gov](mailto:Anne.Rogers@maine.gov)



*Substance Abuse  
and Mental Health Services*

*An Office of the  
Department of Health and Human Services*



# **Stemming the Tide of Opiate Prescribing: The Maine Chronic Pain Collaborative (CPC)**

Amy Belisle, MD

Maine Quality Counts  
September 3, 2015

# Speaker Disclosure:

I do not have any relevant financial relationships with the manufacturers(s) of any commercial products(s) and/or provider of commercial services discussed in this CME activity.

The Chronic Pain Collaborative 2 Project is funded by a grant by the Pfizer Foundation's Independent Grants for Learning and Change (IL&C), which funds the time of QC Staff and Consultants.

This grant funds approx. 4 hours a week of my time as the Project Director.

***Funding Statement:** Funding for the MCPC2 is provided by the Pfizer Independent Grants for Learning and Change (IGL&C) group, which provides independent grant support to organizations for healthcare quality improvement and learning and change initiatives. The Pfizer IGL&C group is partnering with the California Academy of Family Physicians to support this initiative to provide training, project management, evaluation services and on-going consultation to grantees ([www.familydocs.org](http://www.familydocs.org)). Harvard Pilgrim Health Care 2015 Quality Grants Program is also providing partial funding for CPC2 with a grant to Maine Quality Counts.*

# Today's Objectives:

- Define the challenges faced by primary care provider in managing non-cancer related chronic pain and the safe prescribing of opioid medications .
- Describe efforts underway to empower primary care practice teams to implement best practices and quality improvement methods to address these challenges.
- Discuss the importance of partnering with other disciplines and community partners to address this issue.

# Why We Need to Get Better at Working with Patients with Chronic Pain: Cascading Effects

- Patients: In 2012: 1,224,629 scripts written for opioids to 335,990 people in Maine: 81,743,690 pills dispensed
- Babies- 961 substance exposed babies born in 2014 (approx. 8%)
- State: 208 people in Maine died in 2014 due to drug overdoses – 18% increase.
  - Average age of death is 43

# Chronic Pain Treatment Goal:

- Better distinguish between and treat acute, chronic, and non-responsive pain
- Chronic Pain- Pain that is expected to or already has lasted longer than 8 weeks
- Transition from pain-free expectation to improved level of function
- Increase access to proven treatment modalities
- Minimize use of opioids where no data supports current level of use

(Source: MaineCare & Opioids PowerPoint: Kevin S. Flanigan, MD MBA, Medical Director, Office of MaineCare Services: A new approach to pain management for MaineCare members in 2013)

# Participating Practices:

## 2014-15 (Cohort 1: 8 Sites)

- Bucksport Regional Health Center
- EMMC Center for Family Medicine
- Harrington Family Health Center
- DFD Russell Medical Center
- Scarborough Family Medicine

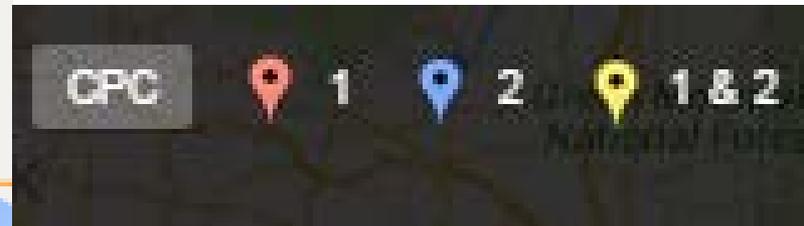
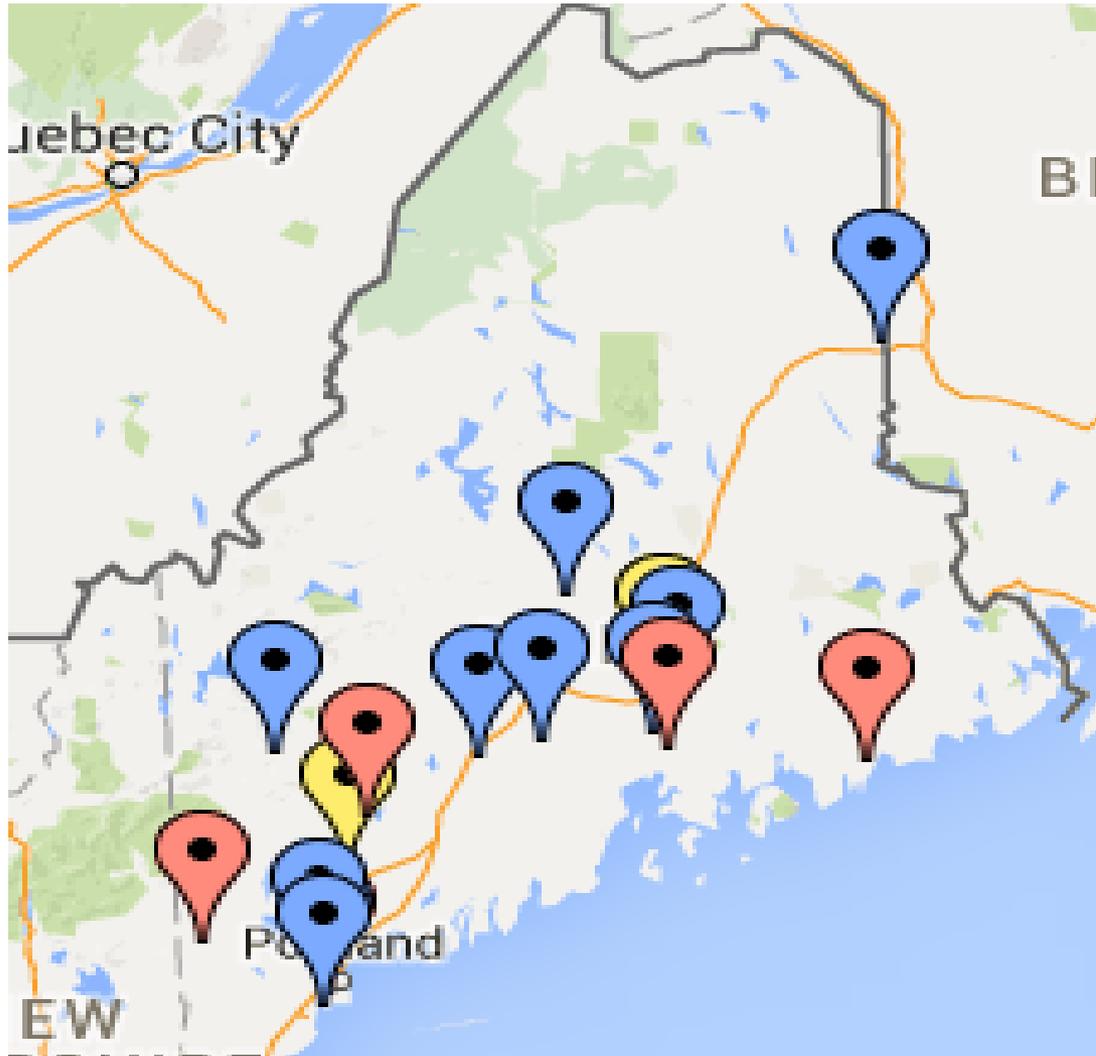
## Cohorts 1 and 2 (3 sites)

- CMMC Family Medicine Residency Clinic
- Sacopee Valley Health Center (ECHO only)
- St. Joseph Internal Medicine

## 2015-16: Cohort 2 (13 sites)

- Brewer Medical Center – PCHC
- Dover Foxcroft Family Medicine
- EMMC Family Practice – Husson
- HealthReach– Sheepscot Valley Health Center
- Inland Family Care – Unity
- MMP Family Medicine Residency Portland/Falmouth
- Maliseet Health and Wellness Center
- Mark Braun, MD (Scarborough)
- Swift River Family Medicine
- Westbrook Primary Care
- Winterport Community Health Center

# Geographic Distribution of Practices



# Key Strategies:

1. Improve provider confidence, competence, and skills to manage chronic pain by offering supports and resources:
  - Use Project ECHO
  - Web-based resources
  - Physician Peer Support
2. Improve capacity of primary care practice teams to manage chronic pain by offering a set of supports and resources:
  - Learning Collaborative model
  - CPC Key Change Package
  - Interprofessional trainings, including TeamSTEPPS for Primary Care
3. Strengthen patient-provider partnerships using a range of strategies:
  - Incorporate the patient voice through projects such as Portraits of Pain and having speakers at learning sessions

# CPC2 Project Team

## Project Leaders

- Lisa Letourneau, MD, MPH
- Dora Anne Mills, MD (UNE)
- Amy Belisle, MD

## Peer Consultants

- Dr. Noah Nesin
- Dr. Rich Entel
- Dr. Elisabeth Fowlie-Mock
- Anne Graham, PNP
- Rhonda Selvin, NP

## Project Staff

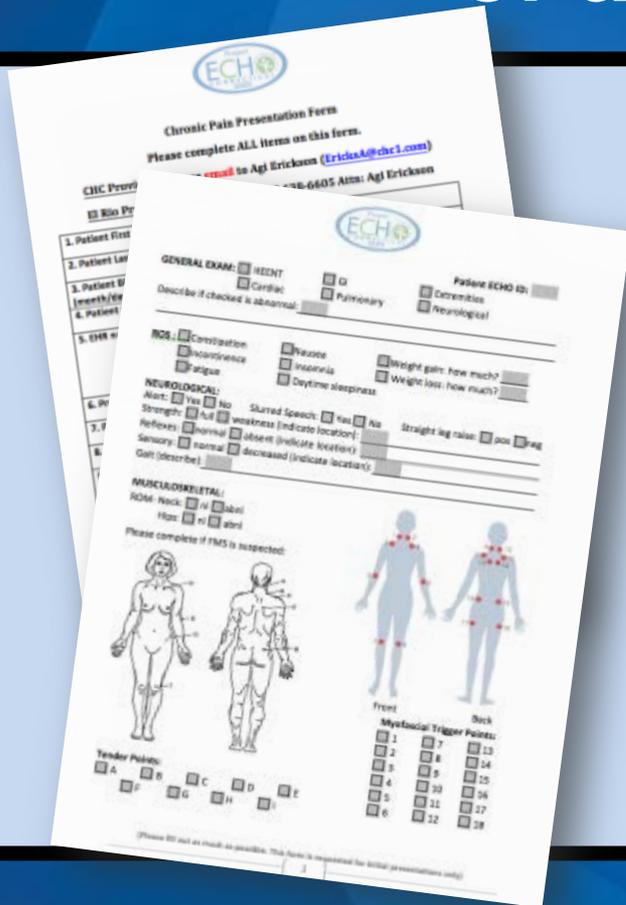
- Chris Beaudette, MS, Project Manager
- Wendy Rodrigue, Administrative Coordinator

## Evaluation Team-Weitzman

- Dr. Daren Anderson
- Lauren Bifulco, MPH
- Khushbu Khatri –data collection



# Key Elements of an ECHO Session



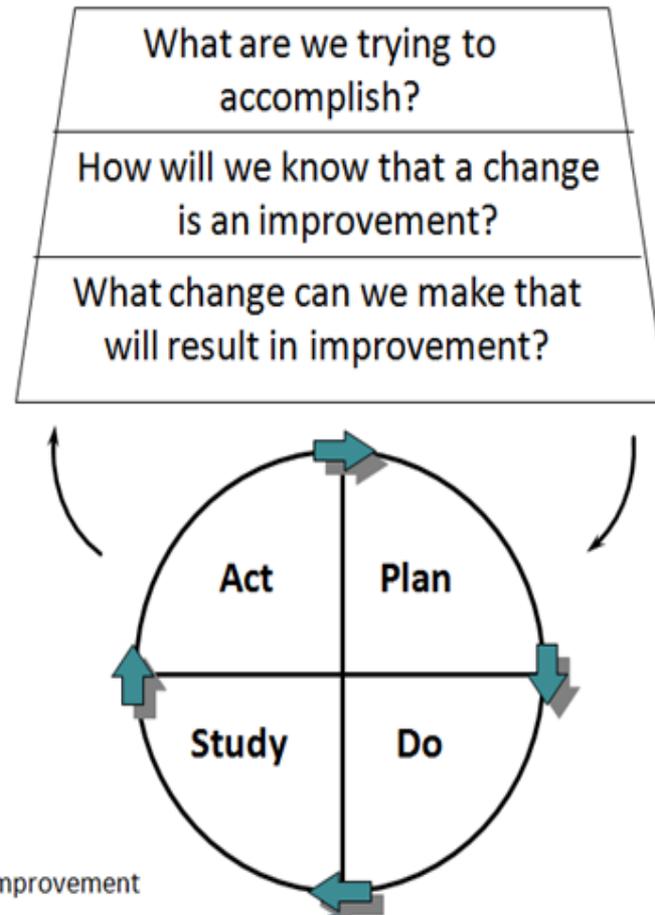
## Case Presentations

- 2-3 Cases per ECHO session
- Co-presented by PCP and BH Provider
- Complex cases
- Multi-disciplinary consultation available
- Valuable for discussion and teaching
- Total time = 1.5 hours

## Didactic Presentations

- 1 per session
- Focused and topical
- By expert faculty
- Total time < .5 hour

# Maine Quality Counts' uses the Model for Improvement for QI Projects



From: Associates in Process Improvement

# Project Aim by July 2016, practices will:

- Establish a process to identify patients that need chronic pain management (def: pts. on >100 meq morphine equivalents per day)
- Decrease # patients requiring >100 meq morphine equivalents per day by 10%
- Be in compliance w/ Chapter 21 regulations (includes establishing workflow for pill counts, use of prescription mgmt. program, urine drug testing, & patient agreements)
- Increase the presence of pain documented in the chart by 10%
  - (2013 baseline 87%, 2015 baseline: 90%)
- Increase % patients w/ functional assessment documented by 20%
  - (2013 baseline 14%, 2015 baseline: 34%)
- Increase % patients with treatment reassessment documented by 20%
  - (2013 baseline 41%, 2015 baseline: 60%)
- Include patient voice in 100% webinars and learning sessions
- Use at least 5 TeamSTEPSS tools in practice



# Maine Chronic Pain Collaborative Evaluation: Cohort 1



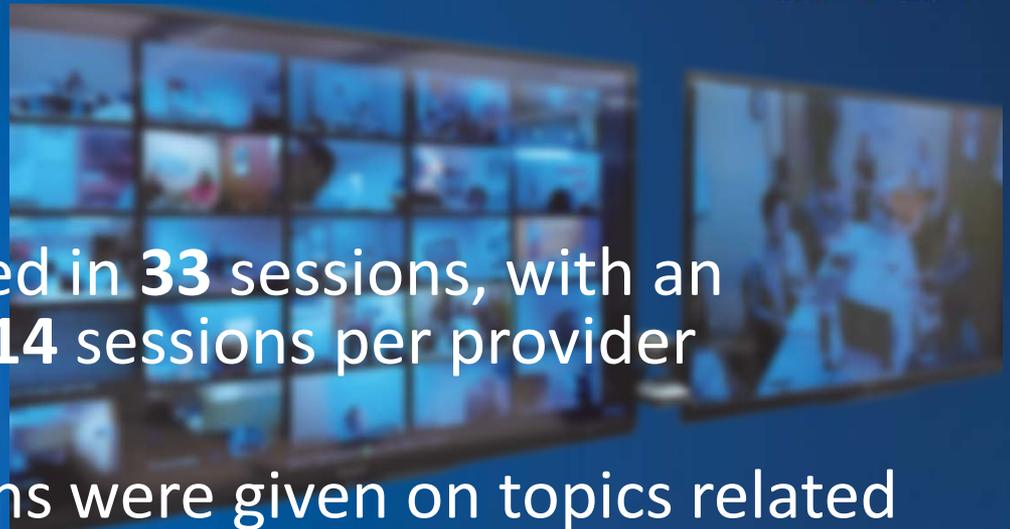
Daren Anderson, MD  
Ianita Zlateva, MPH  
Tierney Giannotti, MPA  
Khushbu Khatri, BS  
Lauren Bifulco, MPH  
Agi Erickson, MBA  
Ariel Guertin

# Maine CPC1 Results



## ECHO Sessions:

- **30** providers participated in **33** sessions, with an average attendance of **14** sessions per provider
- **33** didactic presentations were given on topics related to pain management, opioid use reduction and behavioral health integration for patients with chronic pain
- **8** Maine participants presented **16** cases out of a total of **73** cases

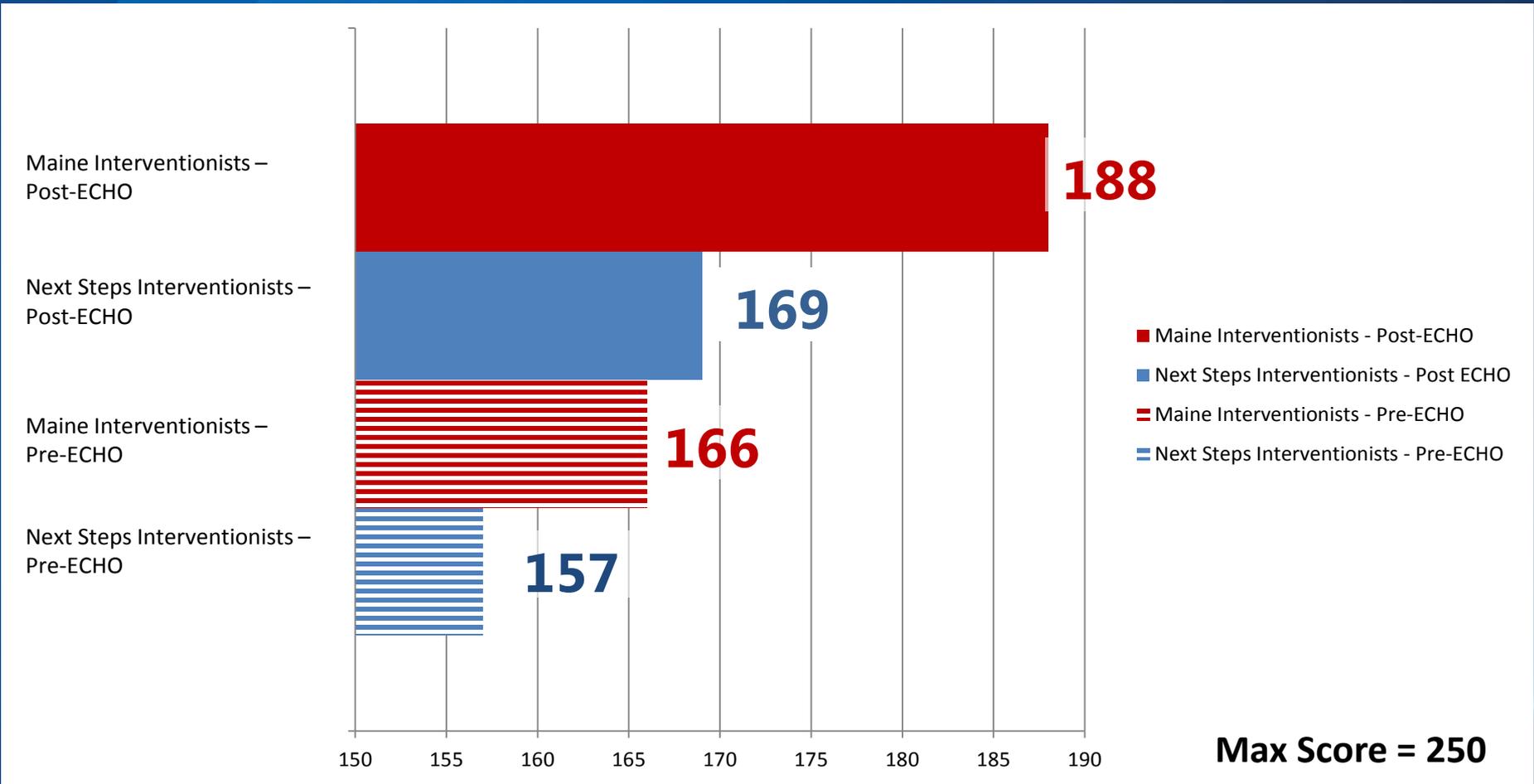




<b>KnowPain-50 Survey Questions</b>	<b>Strongly Agree</b>	<b>Agree</b>	<b>Somewhat Agree</b>	<b>Somewhat Disagree</b>	<b>Disagree</b>	<b>Strongly Disagree</b>
<b>1. When I see consistently high scores on pain rating scales in the face of minimal or moderate pathology, this means that the patient is exaggerating his/her pain</b>						
<b>2. In chronic pain, the assessment should include measurement of the pain intensity, emotional distress, and functional status</b>						
<b>3. There is good evidence that psychosocial factors predict outcomes from back surgery better than the patient's physical characteristics</b>						
<b>4. Early return to activities is one of my primary goals when treating a patient with recent onset back pain</b>						
<b>5. Antidepressants usually do not improve symptoms and function in chronic pain patients</b>						
<b>6. Cognitive behavioral therapy is very effective in chronic pain management and should be applied as early as possible in the treatment plan for most chronic pain patients</b>						



# Maine CPC1 Results: Pain-Related Knowledge



# Opioid-Specific Review

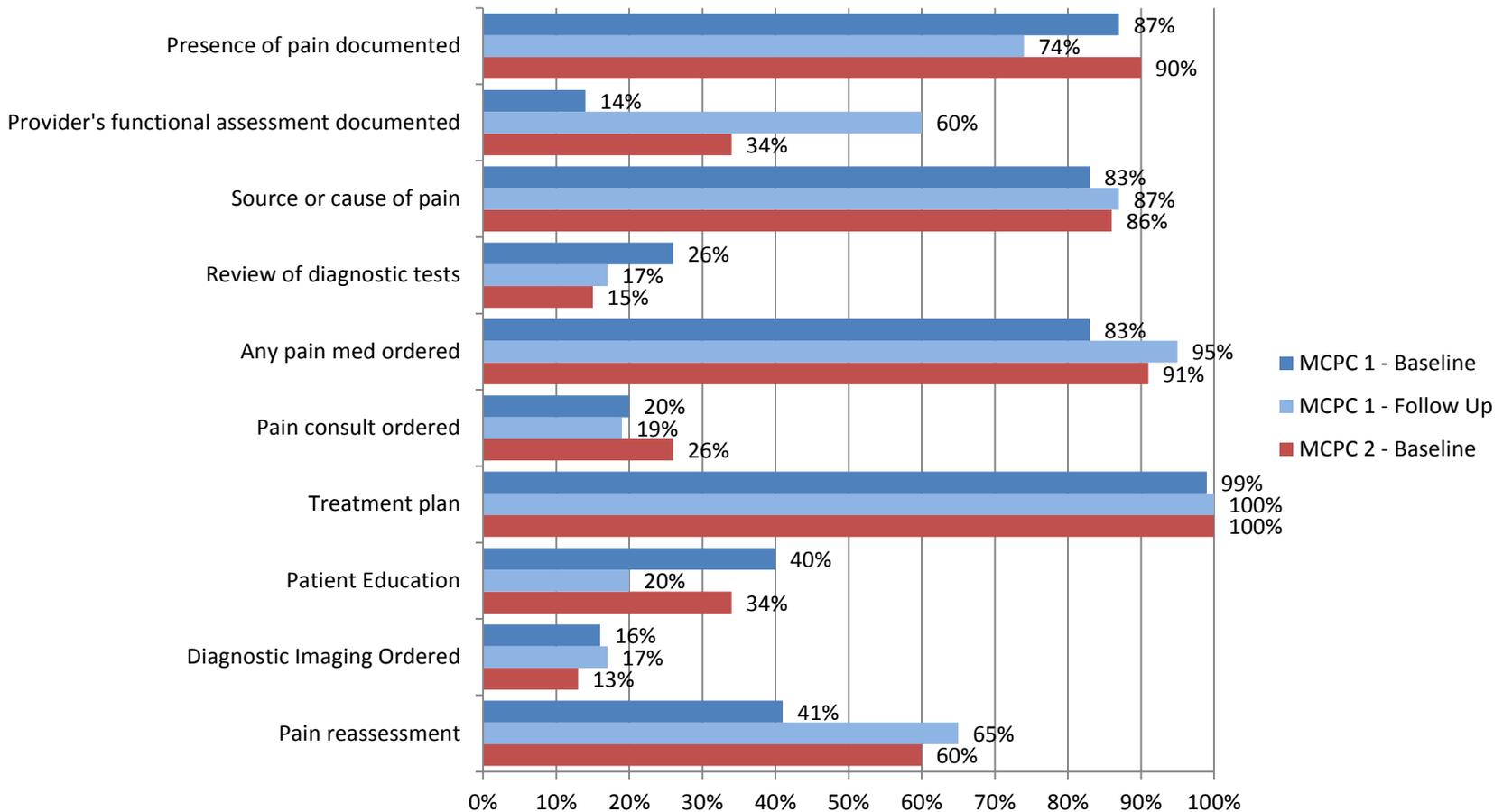


- Audits for patients receiving 90+ days of opioids
- Elements include:
  - Use of an opioid risk assessment tool
  - Opioid ordered
  - Review of PMP
  - Presence of a comorbid mental health diagnosis
  - Routine urine drug screens
  - Presence of signed opioid agreement

# Maine CPC1 and MCPC 2: Chart Review



## Chart Review Results - MCPC 1 and MCPC 2



# Lessons Learned from CPC1:

- Primary care providers often feel overwhelmed by the challenge of managing their patients with chronic pain
- Identifying all patients with chronic pain can be difficult
- Providers and practices find themselves falling short of what's required of them by Chapter 21 rules

# Lessons Learned from CPC1:

- Utilization of functional assessment tools help to shift the conversation to exploring alternative approaches to restore key functions and improve quality of life
- Strong desire to increase patient and family (or caregiver) involvement in care management but there was limited movement on this area

# Lessons Learned from CPC1:

- Scripts and active coaching of providers and mid-level staff help guide difficult conversations with patients which can lead to agreement to taper daily opioid intake and achieving significant results
- Teamwork is key to achieving/sustaining patient success including behavioral health involvement and referrals to community resources
- Community approaches are needed

# Starting the Conversation with Patients, Consumers & Communities around Chronic Pain:

- Need to work with practices on how to have difficult conversations
- How Do We Get the Care We Need to Lead Healthier Lives
- And Reduce Unnecessary Care
  - Choosing Wisely®
- Need to Incorporate Trauma Informed Care in our Work with Patients with Chronic Pain
  - Recognizing Adversity
  - Resiliency
  - Relational Health

**Choosing Wisely**  
An initiative of the ABIM Foundation

ConsumerReportsHealth  
American Society of Anesthesiologists  
ASIM FOUNDATION

### Medicines to relieve chronic pain

When you need opioids (narcotics)—and when you don't

**O**pioids (narcotics) are common pain medicines. They can help if you have bad short-term pain—like pain after surgery for a broken bone. They can also help you manage pain if you have an illness like cancer.

But opioids are strong drugs. And usually they are not the best way to treat long-term pain, such as arthritis, low back pain, or frequent headaches. This kind of pain is called "chronic" pain. Before getting opioids for these problems, you should discuss other choices with your doctor. Here's why:

**Opioids are prescribed too often.** Chronic pain is one of the most common reasons people see the doctor. One in five of these patients gets a prescription for opioids.

Common opioids include:

- Hydrocodone (Vicodin and generic).
- Oxycodone (OxyContin, Percocet, and generic).

Short-term use of these medicines may help. But there is no proof that they work well over time.

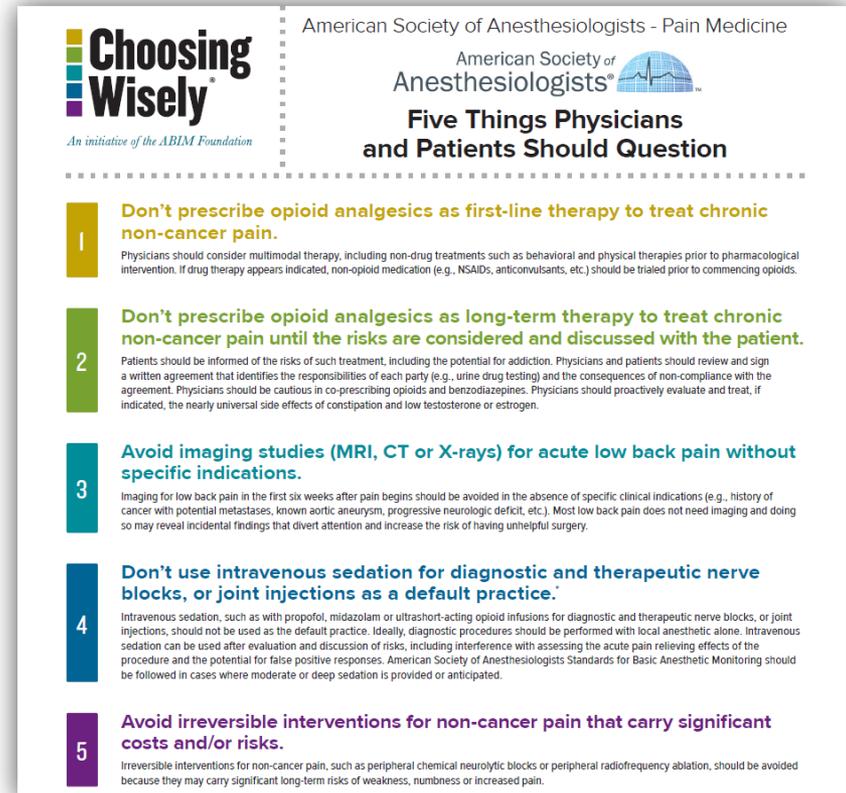
**Opioids have serious side effects and risks.** Over time, the body gets used to opioids and they stop working as well. To get the same relief, you need to take more and more. Higher doses can cause serious side effects:

- Nausea
- Vomiting
- Itching
- Constipation
- Not being able to urinate enough
- Breathing problems, which can be deadly
- Confusion and mental disturbance

Opioids can be very addictive. Up to one in four people who take opioids long-term become addicted. Worst of all, every day, 46 Americans die from an overdose of opioid painkillers. And hundreds more go to the emergency room.

# Choosing Wisely: 5 Things

- Don't prescribe opioid analgesics as first line therapy to treat chronic non-cancer pain
- Don't prescribe until the risks are considered and discussed with the patient
- Avoid imaging studies for acute low back pain without specific indications
- Don't use IV sedation for diagnostic and therapeutic nerve blocks, or joint injections as a default practice
- Avoid irreversible interventions for non-cancer pain that carry significant costs and/or risks



**Choosing Wisely**  
An initiative of the ABIM Foundation

American Society of Anesthesiologists - Pain Medicine  
American Society of Anesthesiologists®  
**Five Things Physicians and Patients Should Question**

- 1 Don't prescribe opioid analgesics as first-line therapy to treat chronic non-cancer pain.**  
Physicians should consider multimodal therapy, including non-drug treatments such as behavioral and physical therapies prior to pharmacological intervention. If drug therapy appears indicated, non-opioid medication (e.g., NSAIDs, anticonvulsants, etc.) should be trialed prior to commencing opioids.
- 2 Don't prescribe opioid analgesics as long-term therapy to treat chronic non-cancer pain until the risks are considered and discussed with the patient.**  
Patients should be informed of the risks of such treatment, including the potential for addiction. Physicians and patients should review and sign a written agreement that identifies the responsibilities of each party (e.g., urine drug testing) and the consequences of non-compliance with the agreement. Physicians should be cautious in co-prescribing opioids and benzodiazepines. Physicians should proactively evaluate and treat, if indicated, the nearly universal side effects of constipation and low testosterone or estrogen.
- 3 Avoid imaging studies (MRI, CT or X-rays) for acute low back pain without specific indications.**  
Imaging for low back pain in the first six weeks after pain begins should be avoided in the absence of specific clinical indications (e.g., history of cancer with potential metastases, known aortic aneurysm, progressive neurologic deficit, etc.). Most low back pain does not need imaging and doing so may reveal incidental findings that divert attention and increase the risk of having unhelpful surgery.
- 4 Don't use intravenous sedation for diagnostic and therapeutic nerve blocks, or joint injections as a default practice.**  
Intravenous sedation, such as with propofol, midazolam or ultrashort-acting opioid infusions for diagnostic and therapeutic nerve blocks, or joint injections, should not be used as the default practice. Ideally, diagnostic procedures should be performed with local anesthetic alone. Intravenous sedation can be used after evaluation and discussion of risks, including interference with assessing the acute pain relieving effects of the procedure and the potential for false positive responses. American Society of Anesthesiologists Standards for Basic Anesthetic Monitoring should be followed in cases where moderate or deep sedation is provided or anticipated.
- 5 Avoid irreversible interventions for non-cancer pain that carry significant costs and/or risks.**  
Irreversible interventions for non-cancer pain, such as peripheral chemical neurolytic blocks or peripheral radiofrequency ablation, should be avoided because they may carry significant long-term risks of weakness, numbness or increased pain.

# QC Staff Information:

**Amy Belisle, MD**, Director, Chronic Pain Collaborative Cohort 2,  
[ABelisle@mainequalitycounts.org](mailto:ABelisle@mainequalitycounts.org)

**Lisa Letourneau, MD, MPH**, Director, Chronic Pain Collaborative Cohort 1,  
[LLetourneau@mainequalitycounts.org](mailto:LLetourneau@mainequalitycounts.org)

**Chris Beaudette, MS**, CPC Project Manager  
[CBeaudette@mainequalitycounts.org](mailto:CBeaudette@mainequalitycounts.org) , 207-620-8526 ext.1027

**Wendy Rodrigue**, Administrative Coordinator  
[WRodrigue@mainequalitycounts.org](mailto:WRodrigue@mainequalitycounts.org), 207-620-8526 ext. 1004

# Comments or Questions about the Project ECHO or the CPC Evaluation?



---

Daren Anderson, MD  
VP/ Chief Quality Officer  
*Community Health Center, Inc.,*  
Director  
*Weitzman Institute*  
[Daren@chc1.com](mailto:Daren@chc1.com)  
860.347.6971 ext.3740

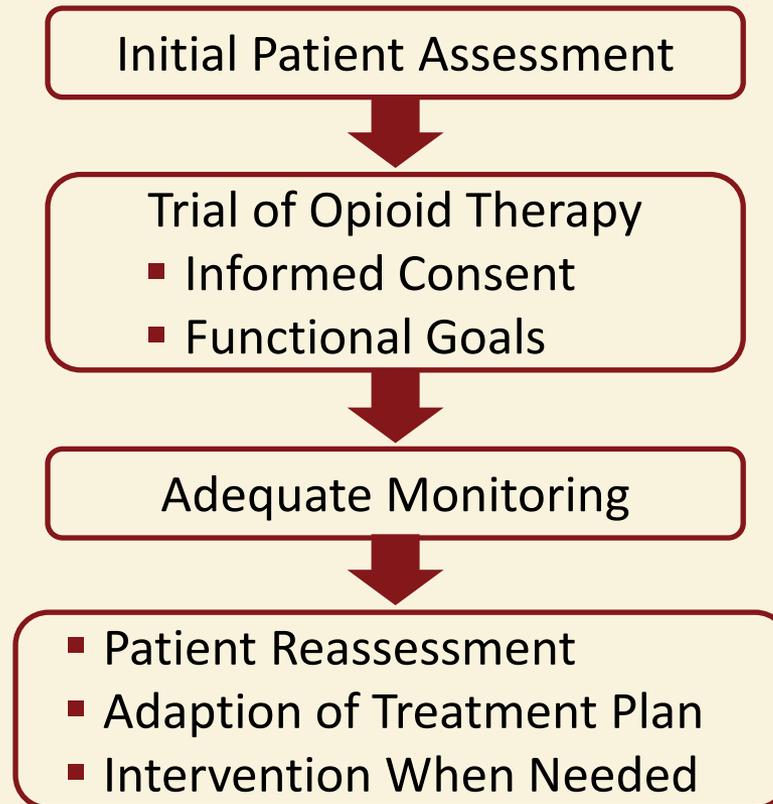
---



# Adapting Treatment in Response to Inadequate Pain Relief



# Steps in the Rational Treatment of Chronic Pain<sup>1</sup>



# Assessing Progress

- ▶ We want to be sure that patients both feel better and actually **are** improving.
- ▶ Therefore, subjective pain relief must be tied to an objective marker, such as functional improvement.



# Monitor for Functional Improvement<sup>2</sup>

- ▶ Analgesia: pain level 0–10 but subjective
- ▶ Affect: Beck Depression Inventory, Zung, Hamilton Depression Rating Scale
- ▶ Activity level: Pain Disability Index, Oswestry
- ▶ Adverse effects: cognition, alertness, depression
- ▶ Aberrant behaviors: multisourcing, lost drugs

If not effective, change or



**Failure to improve does not,  
in itself, indicate the nature  
of the patient's problem.**

# Failure To Improve

- ▶ **If a patient fails to improve**, investigate possible causes.
  - Regarding the treatment regimen, what has the patient done or not done?
  - What are the reasons for any failure to follow the treatment plan?

# Failure To Improve continued

- ▶ The patient may not be on the most appropriate therapy.
  - The treatment may have caused unacceptable side effects.
  - The dose may be insufficient.
  - The patient may be experiencing “dose failure” (doses that are inadequate to last until the next scheduled dose).

# Opioid Responsiveness/Resistance

- ▶ Degree of pain relief with:
  - The maximum opioid dose
  - In the absence of side effects (e.g., sedation)
- ▶ Not all pain responds to opioids.
  - Varies among different types of pain
    - Acute > Chronic
    - Nociceptive > Neuropathic
  - Varies from one individual to the next

# Side Effects May Limit Opioid Use

- ▶ Short-term side effects
  - CNS: euphoria, anxiety, miosis, sedation
  - Respiratory: respiratory depression, overdose
  - CV: hypotension, edema
  - GI: anorexia, vomiting

# Side Effects May Limit Opioid Use

continued

- ▶ Long-term side effects
  - Sleep disturbance, including obstructive sleep apnea
  - Decreased testosterone, libido
  - QTc prolongation
  - Constipation
  - Urinary retention
  - Sweating
  - Depression and other psychiatric comorbidities

**Failure to improve  
requires adjustment  
of the treatment plan.**

# OPTIONS: Intrinsic Treatments

- ▶ Noncontrolled drugs (such as NSAIDS)
- ▶ Exercise/physical therapy
- ▶ Coping strategies
- ▶ Manual medicine
- ▶ Referral to a pain specialist

# Noncontrolled Drugs To Manage Chronic Pain

- ▶ NSAIDS
- ▶ Tricyclics
- ▶ Antidepressants/anxiolytics
- ▶ Anticonvulsants
- ▶ Muscle relaxants
- ▶ Topical preparations (e.g., anesthetics, aromatics)
- ▶ Others (tramadol)

# Noncontrolled Drugs To Manage Chronic Pain continued

- ▶ NSAIDS: Inhibit prostaglandin synthesis
  - Work on Cyclo-Oxygenase (COX) COX-1 and COX-2
  - Decrease pain (minutes to hours)
- ▶ COX-1 agents
  - Aspirin, ibuprofen, naproxen, ketoprofen, indomethacin, diclofenac, piroxicam, sulindac

# Noncontrolled Drugs to Manage Chronic Pain continued

- ▶ COX-2 inhibitors
  - Decrease gastrointestinal effect
  - Normally not present but induced during inflammation
  - Celecoxib
  - Rofecoxib
  - Valdecoxib **Withdrawn from market due to increased cardiovascular risk**

# Noncontrolled Drugs To Manage Chronic Pain continued

## ▶ Antidepressants

- Decrease reuptake of serotonin and norepinephrine
- Increase sleep
- Enhance descending pain-modeling paths
- Tricyclics: amitriptyline and nortriptyline
- SSRIs: not as effective
- SNRI: venlafaxine, duloxetine—Preliminary evidence of efficacy in neuropathic pain

# Noncontrolled Drugs To Manage Chronic Pain continued

- ▶ Antiepileptic Drugs
  - Decrease neuronal excitability
  - Exact mechanism is unclear
  - Not due to antiepileptic activity (e.g., phenobarbital is a poor analgesic)
  - Good for stabbing, shooting, episodic pain from peripheral nerves
  
- ▶ Gabapentin
  
- ▶ Pregabalin
  
- ▶ Carbamazepine
  
- ▶ Topiramate

# Noncontrolled Drugs To Manage Chronic Pain continued

## ▶ Other drugs

- Tramadol
  - Mixed mu opioid agonist and NE/serotonin reuptake inhibitor
- Corticosteroids
  - Decrease inflammation, swelling
- Baclofen
  - GABA receptor agonist
  - Used for spasticity
- Ketamine
  - NMDA antagonist
  - Used in general anesthesia, neuropathic pain
  - Rarely used because of side effects

# Nonpharmacologic Treatments for Chronic Pain

- ▶ Use a full spectrum of therapies.
  - Physical therapy—conditioning
  - Pain psychology—relaxation, counseling, expectations orientation
  - Massage therapy
  - Spinal manipulation
  - Acupuncture
  - Transcutaneous Electrical Nerve Stimulation (TENS) units
  - Nerve blocks
  - Pain management group



# OPTIONS: Adjunctive Therapies

- ▶ Reconditioning, physical therapy
- ▶ Physiological self-regulation
  - Yoga, biofeedback training, meditation
- ▶ TENS
- ▶ Adjunctive medications
- ▶ Injections/blocks
- ▶ Psychotherapy, nonchemical coping



# OPTIONS: Extrinsic Treatments

- ▶ Family counseling
- ▶ Job retraining
- ▶ Financial counseling
- ▶ Pastoral referral



# OPTIONS: Referral to a Specialized Practitioner or Program

- ▶ A certified pain specialist or program may be able to provide consultation or serve as a referral resource, while you manage the rest of the patient's medical care.



# References

<sup>1</sup>Katz, N. (2007). *Patient level opioid risk management: A supplement to the PainEDU.org manual*. Newton, MA: Inflexxion, Inc. (used with permission of Dr. Nathaniel Katz.)

<sup>2</sup>Passik, S. D. & Weinreb, H. J. (2006). Managing chronic nonmalignant pain: Overcoming obstacles to the use of opioids. *Advances in Therapy*, 17(2), 70-83.



# Adapting Treatment in Response to Aberrant Medication Use Behaviors and the Risk of Drug Misuse or Diversion



# Appropriate Use

- ▶ Use of medication as prescribed
- ▶ Use only for the condition indicated
- ▶ Use only for the duration needed
  - Most medications are not abused—  
Estimates of addiction within the chronic pain management setting: 3–19 percent (higher in training settings)<sup>1</sup>

# Aberrant Medication Use Behaviors<sup>2</sup>

- ▶ A spectrum of patient behaviors that may reflect misuse
  - Health care use patterns (e.g., inconsistent appointment patterns)
  - Illicit drug use, misuse of alcohol
  - Problematic medication behavior: nonadherence to prescribed dosages, frequent prescription losses
- ▶ Implications
  - Concern comes from the **pattern** or the **severity**

# Differential Diagnosis

- ▶ Inadequate analgesia<sup>3</sup>
  - Disease progression
  - Opioid-resistant pain<sup>4</sup>
  - Inadequate dose, schedule, or formulation of opioid
  - Opioid-induced hyperalgesia<sup>5</sup>
  - Tolerance to analgesic effect
- ▶ Substance use disorder
- ▶ Comorbid psychiatric illness
- ▶ Diversion



# Physical Dependence<sup>6</sup>

- ▶ **Physical dependence** is not equivalent to dependence or addiction, and may occur with the regular (daily or almost daily) use of any substance, legal or illegal, even when taken as prescribed. It occurs because the body naturally adapts to regular exposure to a substance (e.g., caffeine or a prescription drug).

Physical dependence can lead to craving the drug to relieve the withdrawal symptoms.

- ▶ **Drug dependence** and addiction refer to a substance use disorder, which may include physical dependence but must also meet additional criteria.

# A Few of the DSM-5 Changes<sup>7, 8</sup>

- ▶ Substance use disorder with designations of mild, moderate, or severe replaces substance abuse and substance dependence from DSM IV-R
- ▶ Presence of 2–3 diagnostic criteria is considered mild, 4–6 is moderate, and 7–11 is severe
- ▶ Omitted recurrent substance-related legal problems as a criterion; added craving or strong desire to use

# Substance Use Disorder<sup>8</sup>

The new DSM describes a problematic pattern of use of an intoxicating substance leading to clinically significant impairment or distress, as manifested by at least two of the following, occurring within a 12-month period:

1. The substance is often taken in larger amounts or over a longer period than was intended.
2. There is a persistent desire or unsuccessful effort to cut down or control use of the substance.
3. A great deal of time is spent in activities necessary to obtain the substance, use the substance, or recover from its effects.
4. There is a craving, or a strong desire or urge to use the substance.

# Substance Use Disorder<sup>9</sup> continued

5. Recurrent use of the substance results in a failure to fulfill major role obligations at work, school, or home.
6. There is continued use of the substance despite having persistent or recurrent social or interpersonal problems caused or exacerbated by the effects of its use.
7. Important social, occupational, or recreational activities are given up or reduced because of use of the substance.
8. Recurrent use of the substance occurs in situations in which it is physically hazardous.
9. Use of the substance is continued despite knowledge of having a persistent or recurrent physical or psychological problem that is likely to have been caused or exacerbated by the substance.

# Substance Use Disorder<sup>10</sup> continued

10. Tolerance, as defined by either of the following:
  - a. A need for markedly increased amounts of the substance to achieve intoxication or desired effect
  - b. A markedly diminished effect with continued use of the same amount of the substance
  
11. Withdrawal, as manifested by either of the following:
  - a. The characteristic withdrawal syndrome for that substance (as specified in the DSM-5 for each substance)
  - b. The substance (or a closely related substance) is taken to relieve or avoid withdrawal symptoms

# Drug-Seeking Behaviors

- ▶ Pattern of calling for refills after hours
- ▶ Prescriptions from multiple providers
- ▶ Frequent visits to the emergency room
- ▶ Strong preference for specific drug (“allergic to everything but...”)
- ▶ Repeatedly needing early refills

# What the Clinician Hears

## ▶ Excuses

- “I lost the prescription. I left it on the plane.”
- “It was stolen out of my car/purse/bedroom.”
- “The dog ate the prescription.”
- “I spilled the bottle in the toilet.”

## ▶ Fears/complaints

- “That dose doesn’t work anymore. I used a few of my mom’s.”
- “I can’t sleep without it. I need it for my nerves.”
- “I can’t get through the day without it.”

# Problematic Behaviors That Are Less Likely to Indicate Addiction<sup>11</sup>

- ▶ Complaints about a need for more medication
- ▶ Drug hoarding when symptoms abate
- ▶ Requests for specific pain medications
- ▶ Openly acquiring similar medications from other providers
- ▶ Occasional unsanctioned dose escalation
- ▶ Unapproved use of the drug to treat other symptoms
- ▶ Nonadherence to other recommendations for pain therapy



Yellow Flags

# Aberrant Behaviors That Are More Likely to Indicate Addiction<sup>12</sup>

- ▶ Deterioration in function at work or socially
- ▶ Illegal activities (e.g., selling, forging scripts, buying from nonmedical sources)
- ▶ Injection or snorting medication
- ▶ Multiple episodes of “lost” or “stolen” scripts
- ▶ Resistance to a change in therapy despite adverse effects
- ▶ Refusal to comply with random drug screens
- ▶ Concurrent abuse of alcohol or illicit drugs
- ▶ Use of multiple physicians and pharmacies



# Intervening for Unintentional Misuse<sup>13</sup>

- ▶ Clarify/restate the therapeutic instructions.
- ▶ Explore the patient's concerns or difficulties.
- ▶ Identify and problem-solve complicating factors (simplify regimen, avoid look-alike drugs, have patient bring medication to your office).
- ▶ Explain any medication change.
- ▶ Involve family members and caregivers.

# Intervening When Abuse Is Confirmed

- ▶ Express your specific concerns in terms of the patient's well-being.
  - “I know that you have a problem with pain, but I believe you also have a problem with how you are using your medication. These are the things I've noticed that worry me....”
  - “Do you agree that this is a problem for you?”
- ▶ Weigh the risks of continuing therapy with opioids or other controlled drugs.
- ▶ Restructure the treatment agreement as needed.

# Intervening When Abuse Is Confirmed continued

- ▶ Require a referral for addiction evaluation and treatment.
- ▶ Consider the need for inpatient treatment.
- ▶ If the patient is opioid dependent, consider a referral for substitution or agonist treatment.

# Intervening When the Patient Is Unwilling or Unable to Comply

- ▶ Express your concern in terms of the patient's well-being.
- ▶ State that the particular medication is no longer safe or indicated and you will not continue to prescribe it (arrange taper or referral).
- ▶ Explore other therapeutic options.
- ▶ Assess for withdrawal risk.
- ▶ Refer the patient for specialized addiction treatment.

# Opioid Dependence/Addiction: Treatment Alternatives

- ▶ Refer for taper or detox: outpatient (methadone or buprenorphine) or inpatient
- ▶ Increased substance abuse treatment and monitoring while tapering
- ▶ Refer for substitution therapy with methadone (opioid treatment program)
- ▶ Refer or transfer to buprenorphine/naloxone (office based)

# Opioid Dependence: Treatment With Substitution Therapy

- ▶ Appropriate for illicit or prescription opioid abuse
- ▶ Rationale for agonist therapy
  - Cross-tolerance: prevents withdrawal and relieves craving
  - Blocks euphoric effects of other opioids
  - Demonstrated efficacy related to recovery
  - Provides analgesia if continuing chronic pain
- ▶ Available alternatives
  - Methadone
  - Buprenorphine
  - Buprenorphine/naloxone

# Summary

- ▶ Intervention for aberrant medication behaviors should be tailored to the specific level of the problem.
- ▶ When abuse is identified, a higher level of treatment engagement and monitoring is necessary or the medications may need to be discontinued.
- ▶ Methadone or buprenorphine/naloxone are useful alternatives for opioid addiction, particularly in the setting of chronic pain and/or psychiatric instability.

# References

- <sup>1</sup>Weaver, M., & Schnoll, S. (2007). Addiction issues in prescribing opioids for chronic nonmalignant pain. *Journal of Addiction Medicine, 1*(1), 2-10.
- <sup>2</sup>Passik, S. (2009). Issues in long-term opioid therapy: Unmet needs, risks, and solutions. *Mayo Clinic Proceedings, 84*(7), 593-601.
- <sup>3</sup>Weissman D. E., & Haddox J. D. (1989). Opioid pseudoaddiction—An iatrogenic syndrome. *Pain, 36*(3), 363-366.
- <sup>4</sup>Evers, G. C. (1997). Pseudo-opioid-resistant pain. *Supportive Care in Cancer, 5*(6):457-460.
- <sup>5</sup>Chang, G., Chen, L., & Mao, J. (2007). Opioid tolerance and hyperalgesia. *Medical Clinician North America, 91*(2), 199-211.
- <sup>6</sup>National Institute on Drug Abuse. (2014). *Media guide: How to find what you need to know about drug abuse and addiction*. Washington, DC: Author. Retrieved from: <http://www.drugabuse.gov/publications/media-guide/science-drug-abuse-addiction-basics>
- <sup>7</sup>American Psychiatric Association. (2013). *Diagnostic and statistical manual of mental disorders (5th ed.)*. Washington, DC: Author.
- <sup>8</sup>National Institute on Alcohol Abuse and Alcoholism. *Alcohol use disorder: A comparison between DSM-IV and DSM-5* (NIH Publication No. 13-7999). Retrieved from <http://pubs.niaaa.nih.gov/publications/dsmfactsheet/dsmfact.pdf>
- <sup>9</sup>American Psychiatric Association. (2013). *Diagnostic and statistical manual of mental disorders (5th ed.)*. Washington, DC: Author.
- <sup>10</sup>Ibid
- <sup>11</sup>Ibid
- <sup>12</sup>Passik, S. (2009). Issues in long-term opioid therapy: Unmet needs, risks, and solutions. *Mayo Clinic Proceedings, 84*(7), 593-601.
- <sup>13</sup>Ibid
- <sup>14</sup>Ibid



# Discontinuing Opioids and Providing—or Referring the Patient for—Other Treatment Modalities



# Some Patients **Feel** Better, but Actually Are Worse

- ▶ In a small percentage of patients, the prescribed opioid analgesics may cause acute toxicity or addiction.
- ▶ We want to be sure that patients both feel better and actually are improving.

# If the Decision Is to Discontinue Opioids

- ▶ Educate the patient about the need to do so.
- ▶ Discuss the process involved.
- ▶ Reduce the dose.
  - There are numerous ways to do it
  - None is demonstrably superior
- ▶ Explain alternative therapies.
- ▶ Show continued commitment to caring about the patient's pain, even without opioids.
- ▶ Focus on the patient's strengths.
- ▶ Encourage therapies for coping with the pain.
- ▶ Schedule close followups during and after the taper.

# Diagnosis of Substance Use Disorder

**Think about:** Screening, Brief Intervention, and Referral to Treatment (SBIRT), to be reviewed in Module 14.



# Withdraw the Patient Safely and Comfortably From Opioids (A critical skill!)

- ▶ Identify the lack of indications, or relative or absolute contraindications.
- ▶ Assess the urgency of the need to withdraw opioids.
- ▶ Know how to manage tapers.
- ▶ Recognize and manage withdrawal symptoms.

# Legalities

- ▶ Only specifically licensed programs/physicians can detoxify individuals with severe opioid use disorders using opioid medications!
- ▶ Any physician who can prescribe controlled substances can taper them when they are no longer needed or effective if there is a legitimate pain diagnosis.<sup>1</sup>

# Adjuvant Drugs for Opioid Withdrawal

- ▶ Alpha-2 agonists
  - Clonidine
    - 0.1 mg prn if systolic BP  $\geq$  120
    - Transdermal difficult to titrate, slow onset, but good for postacute withdrawal
  
- ▶ Sedation/tranquilization
  - Trazodone
  - Doxepin
  - Antiepileptic drugs given for pain also reduce the anxiety component of withdrawal
  - Others
  
- ▶ Loperamide
  
- ▶ Antiemetics

# Tapering Options for Opioids

- ▶ All pure mu agonists are effective.
- ▶ All are legal (under federal law) when used to manage withdrawal symptoms resulting from discontinuation of opioids for legitimate pain.
  - Including methadone and buprenorphine
- ▶ The kinetics and costs are probably the main issues.
  - Longer  $t_{1/2}$  = fewer troughs and peaks

# Tapering Options for Opioids

## continued

- ▶ 24-hour morphine is a common favorite<sup>1</sup>
  - No need to carry/dose opioids throughout the day
  - No accumulation
  - 2–3 hours after a dose, it is apparent whether it was too much or too little
- ▶ Short course of tramadol taper
  - 8-day scheduled taper
  - (600/400/300/200/150/100/50/50 D/C)

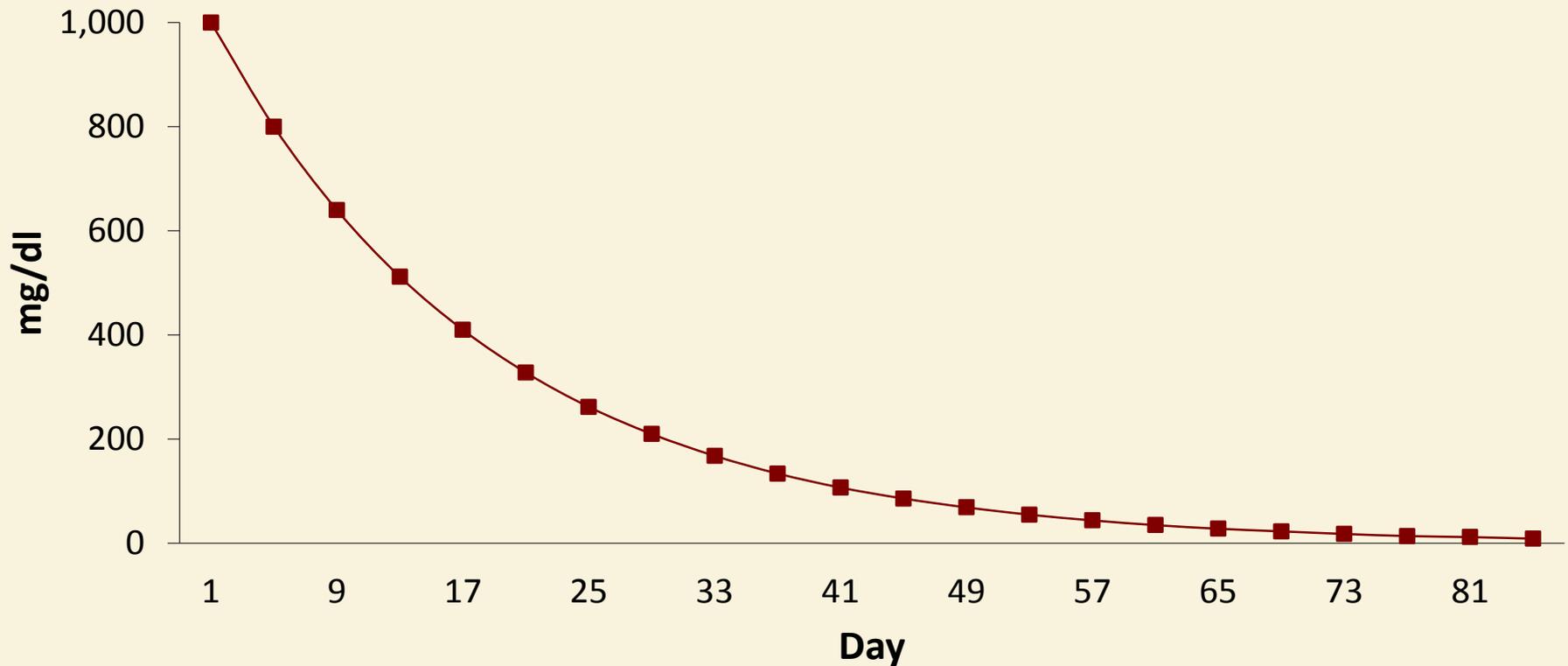
# 10-Week Taper

- ▶ **Note in chart:** Legitimate pain diagnosis, reason for discontinuation of opioids, nonemergency situation, outline of taper, end date for prescribing
- ▶ Have the patient read and initial the note.
- ▶ Prescribe 10 percent fewer opioid analgesics per week.

# 10-Week Taper continued

- ▶ Reassess during week 8
  - If going well, continue
  - If not going well, plan for detoxification
  
- ▶ During week 10
  - Stop prescribing
  - Educate patient about withdrawal symptoms
  - Urge patient to go to ER if withdrawal symptoms appear
  - Admit for detoxification if necessary

# More Rapid Opioid Taper 20 Percent Every 4 Days

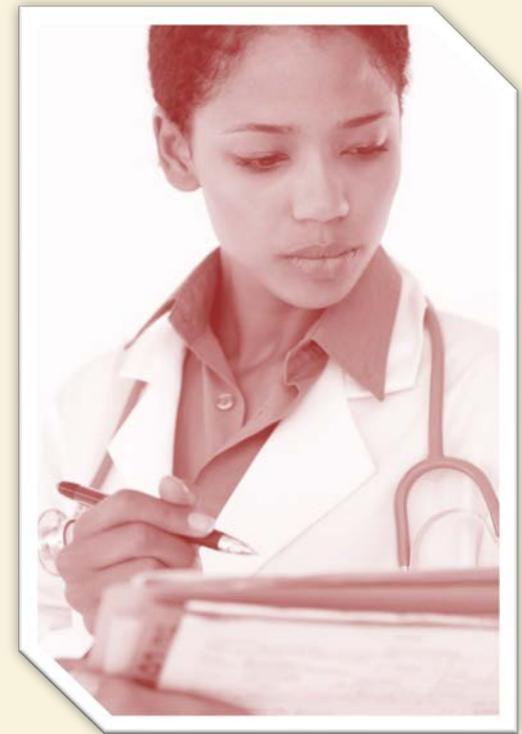


# Emergency Contraindications to Continued Opioid Prescribing (Above all, first do no harm)

- ▶ Altering a prescription = **FELONY**
- ▶ Selling prescriptions or drugs = **DRUG DEALING**
- ▶ Accidental/intentional overdose = **DEATH**
- ▶ Threatening staff = **EXTORTION**
- ▶ Too many scams = **OUT OF CONTROL**

# Emergency Contraindications to Continued Opioid Prescribing continued

- ▶ What is a physician to do?
- ▶ Provide a referral for treatment.



# Reference

<sup>1</sup>Heit, H., Covington, E., & Good, P. (2004).  
Dear DEA. *Pain Medicine*, 5(3), 303-308.



# Case 2:

## A 35-Year-Old Man With Pain Related to TMJ



# Part 1: Initial Visit



# Initial Visit

A patient transfers to your facility and presents for an initial visit:

**35-year-old man with TMJ here for initial visit and refill on medications. He reports medications as naproxen, sertraline, hydromorphone, and diazepam.**

- ▶ What are your goals for the first visit?
- ▶ What information do you need to make a preliminary judgment about continuing or changing the medications?

*Note: The patient inadvertently requested a 15-minute med check visit, rather than an initial visit. His chart from the previous facility is not available at the time of the visit.*

# Background

- ▶ The patient reports chronic, persistent pain from TMJ for many years, treated off and on with NSAIDs and various short-acting opioids.
- ▶ Surgical interventions: Seven in the past 6 years, with the last being an IOVO surgery performed 3 months prior to transfer.
- ▶ The pain is described as “**10 over 10 all the time**” and is frequently interfering with the patient’s ability to go to work, partly because of sleep deprivation.
- ▶ As a result, patient says he drinks more than **10 caffeinated beverages** a day and **smokes more than a pack a day**.

# Current Medications

Determined from medicine bottles, filled 3 weeks ago:

- ▶ **Hydromorphone:** 4 mg q4 hr prn pain, maximum 3 per day, last Rx: 90, pills left in bottle: 12
- ▶ **Naproxen:** 500 mg up to q6 hr prn pain, last Rx: 90, pills left: 4
- ▶ **Sertraline:** 100 mg per day, last Rx: 30, pills left: 20
- ▶ **Diazepam:** 10 mg prn muscle spasm up to tid, last Rx: 90, pills left: 12

# Physical Exam and Interview

- ▶ The examination demonstrates well-healed surgical scars, consistent with the patient's history.
- ▶ The cervical musculature is tender to palpation.
- ▶ There is jaw co-contraction, opening to 20 mm.
- ▶ There are demonstrable stress behaviors: clenching, startle reflex, and RR 20–24.
- ▶ During the interview, the patient is angry and at times almost belligerent. He says: “**Without my meds, I’m in a ton of pain**” and “**They’re the only things that keep me from going crazy.**”

# What Is Your Clinical Impression?

- ▶ Does the patient have a clinical indication for the medications prescribed?
- ▶ What is your initial assessment of his level of risk for medication misuse?
- ▶ Are there other sources of information you can consult before prescribing?

# Considerations and Preliminary Plan

1. Would you continue the patient's current medications at this time or delay until you have more information?
2. If you decide to prescribe, what quantity would you order?
3. How soon would you schedule a return visit?
4. What information do you want to access before the patient's next visit?

# Part 2: Followup



# Record Review: Diagnoses

Prior to the patient's return visit, you review his available medical record and your working diagnoses are:

1. Post-surgical neuropathy of the mandible
2. Cervical myofascial pain
3. Fibrous ankylosis of the right TMJ



# Record Review: “Yellow Flags”

Your review of prior records also notes references to:



- ▶ “Drug-seeking behavior”
- ▶ “Malingering”
- ▶ “Frequent medical, dental, and ER visits”
- ▶ “Several MVAs during the past 3 years”
- ▶ “Anger issues”

# What Is Your Reaction to These References?

What do they mean in terms of risk stratification?

- ▶ How do you sort out “drug seeking” from “pseudoaddiction” in this case?
- ▶ Would this information change how you formulate the treatment agreement or monitor the patient?
- ▶ Would you continue to prescribe opioids or other controlled medications for this patient?

# If You Continue Opioids, Would You Change the Choice of Medications?

- ▶ Would you switch to a long-acting agent?
- ▶ Consider methadone?
- ▶ Would you continue the diazepam for “muscle spasm?”
- ▶ What other elements would be included in his multi-modal pain management agreement?
- ▶ What about the “anger issues?”
- ▶ What would be needed in terms of followup and monitoring (frequency of visits/refills/drug screens/other contacts/etc.)?



# Regulatory Standards and Practices



# Prescribing Practices That Warrant Scrutiny

- ▶ Issuing prescriptions for large amounts of controlled substances without medical justification
- ▶ Failing to keep accurate records
- ▶ Failing to evaluate and/or monitor patients
- ▶ Prescribing to drug-dependent persons without adequate consultation, evaluation, and monitoring

# Federal Law

## ▶ CFR 1306.04(a)

- “A prescription for a controlled substance **must be issued for a legitimate medical purpose** by an individual practitioner acting **in the usual course of his professional practice.**”
- “The responsibility for the proper prescribing and dispensing of controlled substances rests on the prescribing practitioner, but a **corresponding responsibility rests with the pharmacist who fills the prescription.**”



# CFR 1306.04(a)

- ▶ “An order purporting to be a prescription issued not in the usual course of professional treatment **is not a prescription within the meaning and intent of section 309 of the Act** (21 U.S.C. 829); and
- ▶ **The person who knowingly fills such a purported prescription**, as well as the person issuing it, **shall be subject to the penalties** provided for violations of the provisions of law relating to controlled substances.”

# DEA Valid Prescription Requirements<sup>1</sup>

- ▶ A prescription for a controlled substance must be dated and signed on the date when issued. The prescription must include the patient's full name and address, and the practitioner's full name, address, and DEA registration number.
  
- ▶ The prescription must also include:
  - Drug name
  - Strength
  - Dosage form
  - Quantity prescribed
  - Directions for use
  - Number of refills authorized (if any)



# DEA Valid Prescription Requirements<sup>1</sup>

## continued

- ▶ “A prescription must be written in ink or indelible pencil or typewritten and must be manually signed by the practitioner on the date when issued. An individual (e.g., secretary, nurse) may be designated by the practitioner to prepare prescriptions for the practitioner’s signature.”

# Federal and State Laws and Regulations—A Common Theme

- ▶ A valid physician-patient relationship must exist.
- ▶ The prescription must be issued for a valid medical purpose.
- ▶ The prescription must be therapeutic for the patient's condition.
- ▶ The physician and pharmacist have a corresponding responsibility to determine the prescription is valid.

# Reference

<sup>1</sup>United States Department of Justice, Drug Enforcement Administration, Office of Diversion Control. (2010). *Pharmacist's manual: An informational outline of the Controlled Substances Act*. Springfield, VA: Author. Retrieved from: [http://www.deadiversion.usdoj.gov/pubs/manuals/pharm2/pharm\\_content.htm](http://www.deadiversion.usdoj.gov/pubs/manuals/pharm2/pharm_content.htm)



# Screening, Brief Intervention, and Referral to Treatment



# SBIRT: The Three Components

- ▶ **Screening**: Screen patients for high-risk or dependent drinking and drug use.
- ▶ **Brief Intervention**: Have a conversation to motivate patients who screen positive to consider healthier decisions (e.g., cutting back, quitting, or seeking further assessment).
- ▶ **Referral to Treatment**: Link patients to resources when appropriate.

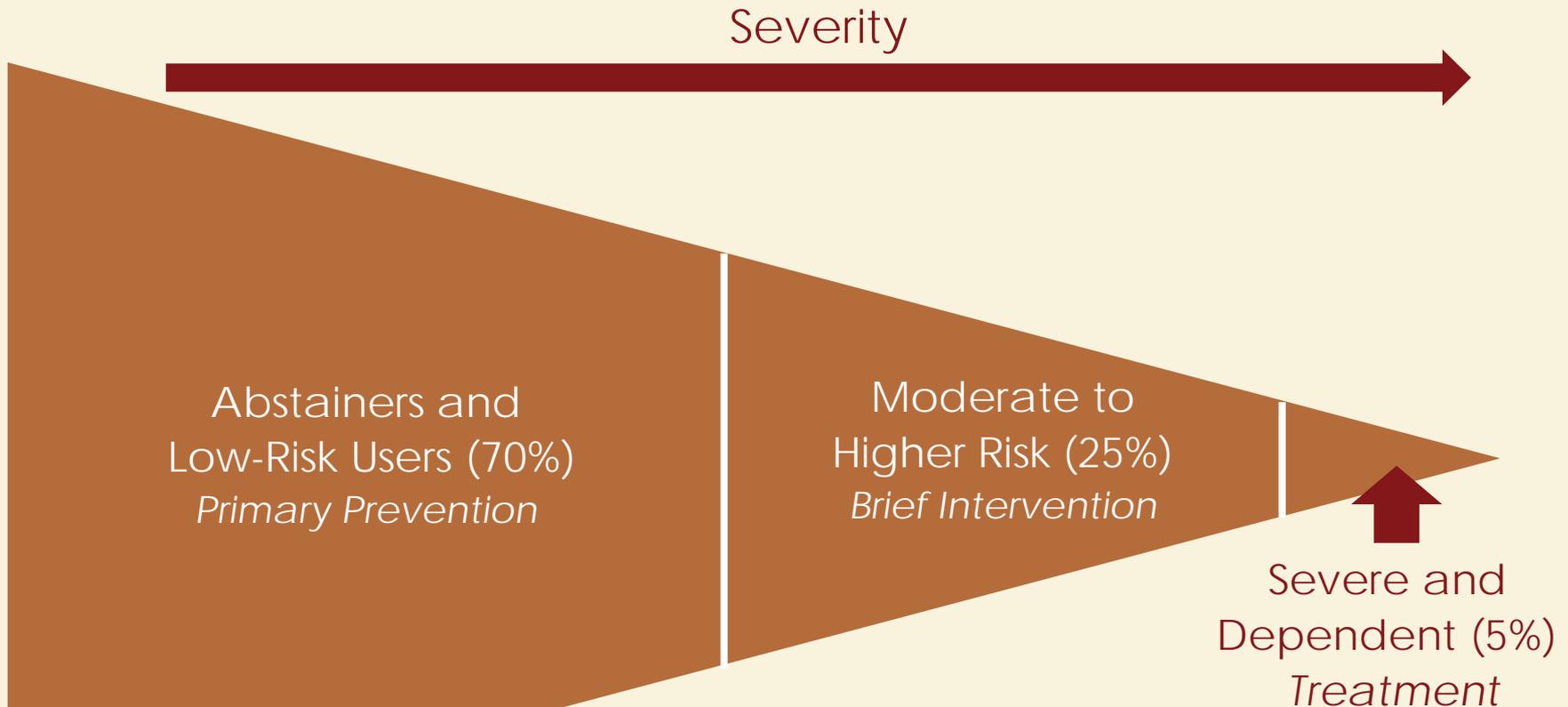
# SBIRT Defined

- ▶ Screening, Brief Intervention, and Referral to Treatment (SBIRT) is a comprehensive, integrated, public health approach to the delivery of early intervention and treatment services.
- ▶ Primary care centers, hospitals, and other community settings provide excellent opportunities for early intervention with patients who are at risk for substance use and to identify patients with substance use disorders.

# Why Is SBIRT Important?<sup>1</sup>

- ▶ Unhealthy and unsafe alcohol and drug use are major preventable public health problems resulting in more than 100,000 deaths each year.
- ▶ The cost to society is more than \$600 billion annually.
- ▶ The effects of unhealthy and unsafe alcohol and drug use have far-reaching implications for the individual, family, workplace, community, and health care system.

# BI as a Response Option<sup>2</sup>



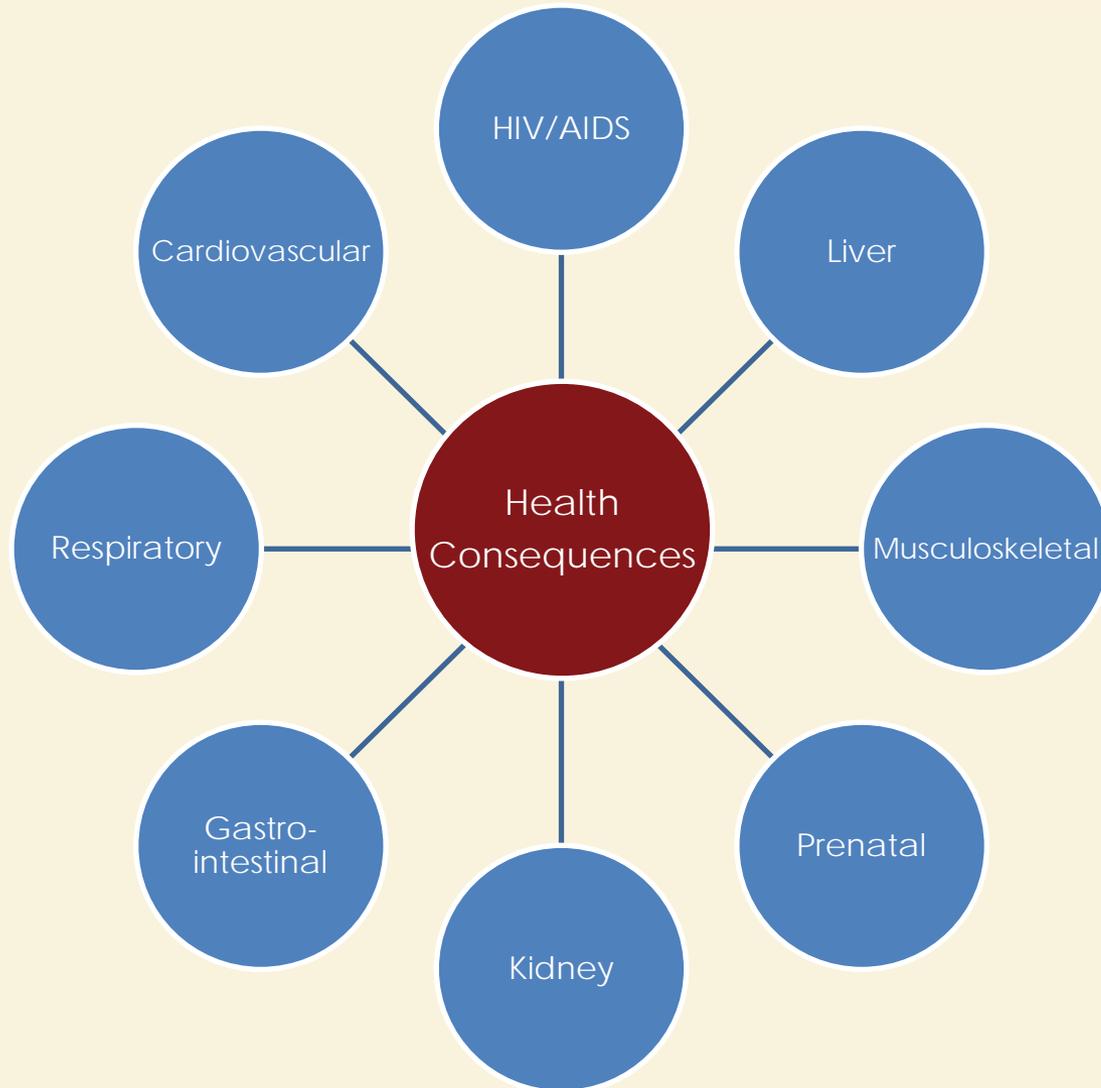
# Harms Related to Hazardous Alcohol and Substance Use

Increases the risk for:

- ▶ Adverse interactions with prescribed medication
- ▶ Illness/injury/trauma/poisoning
- ▶ Criminal justice involvement
- ▶ Social problems (job loss, homelessness)
- ▶ Mental health consequences (e.g., anxiety, depression)
- ▶ Increased absenteeism and injuries in the workplace

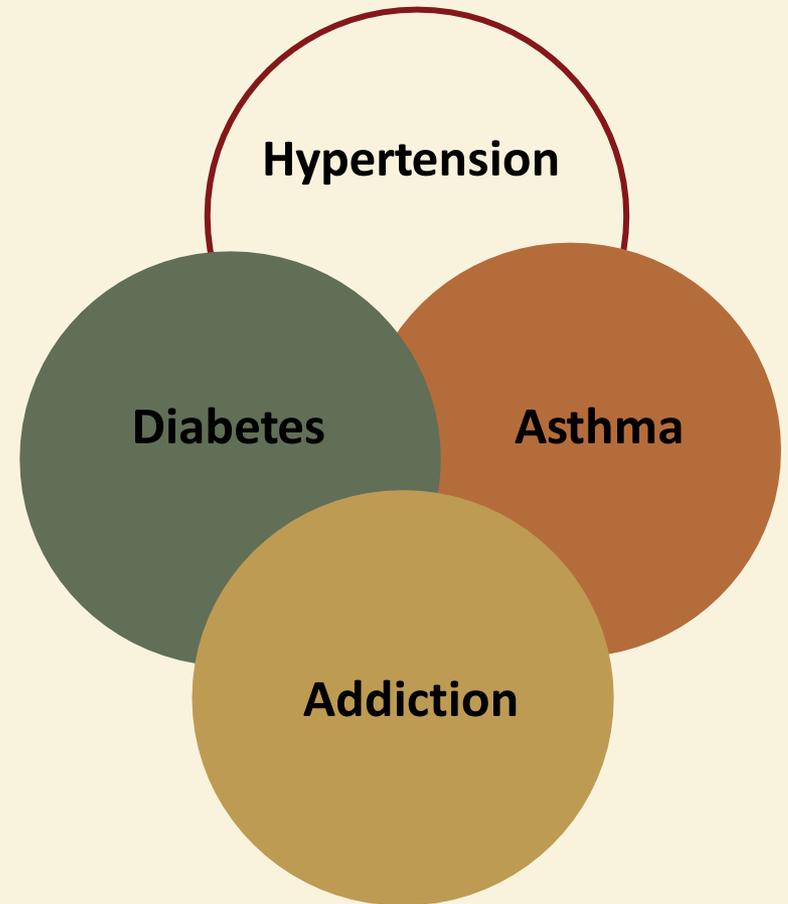


# Medical Harm of High-Risk Drinking<sup>3</sup>



# Substance Use Disorders Are Similar to Other Chronic Illnesses<sup>4</sup>

- ▶ Less than 30 percent of patients adhere to prescribed medications and diet or behavioral changes.
- ▶ There is a 50 percent recurrence rate.
- ▶ Substance abuse should be insured, monitored, treated, and evaluated like other chronic diseases.



# Goal

- ▶ The primary goal of SBIRT is to identify and effectively intervene with patients who are at **moderate or high-risk** for psychosocial or health care problems related to their substance use.



# Making a Measurable Difference<sup>5</sup>

- ▶ Since 2003, SAMHSA has supported SBIRT programs with good evidence that screening in primary care identifies patients with at-risk drinking patterns.
- ▶ Outcome data confirm a 40 percent reduction in harmful use of alcohol by those drinking at risky levels and a 55 percent reduction in negative social consequences.
- ▶ Outcome data also demonstrate positive benefits for reduced illicit substance use.

# Illicit Drugs and Prescription Medication

- ▶ Limited but promising
- ▶ Cocaine and heroin<sup>6</sup>
  - More likely to be abstinent (both drugs)
  - Significant reductions in hair sample drug levels (cocaine only)
- ▶ Marijuana in youth and young adults<sup>7</sup>
  - More likely to be abstinent for past 30 days (12-month results)
  - Greater reduction in days used
  - Less likely to have been high

# Illicit Drugs and Prescription Medication continued

- ▶ Prescription medication use<sup>8</sup>
  - Significant reduction in daily dose, more likely to discontinue (3-month results)
- ▶ Multiple substances, multiple sites<sup>9</sup>
  - Significant reductions in illicit drug use (6-month results)
  - No control group

# How Screening Helps

- ▶ Can detect current health problems related to at-risk alcohol and substance use at an early stage, before it results in more serious disease or other health problems
- ▶ Can detect alcohol and substance use patterns that can increase future risks of injury or illness
- ▶ Can intervene and educate about at-risk alcohol and other substance use
- ▶ Can prevent medical and prescribing errors

# Rationale for Universal Screening

- ▶ Drinking and drug use are common.
- ▶ Drinking and drug use can increase the risk for health problems, safety risks, and a host of other issues.
- ▶ Drinking and drug use often go undetected.
- ▶ People are more open to change than you might expect.

# Patients Are Open to Discussing Their Substance Use to Help Their Health<sup>10</sup>

- ▶ Ninety percent of surveyed patients said they would give an honest answer if asked about their drinking.
- ▶ Over 90 percent of surveyed patients reported that their primary care physician should ask about their drinking and advise cutting down if it is affecting their health.
- ▶ Eighty-six percent of patients disagreed that they would be embarrassed if asked to discuss their drinking patterns.
- ▶ Seventy-eight percent of patients disagreed that they would be annoyed if asked about their drinking.

# References

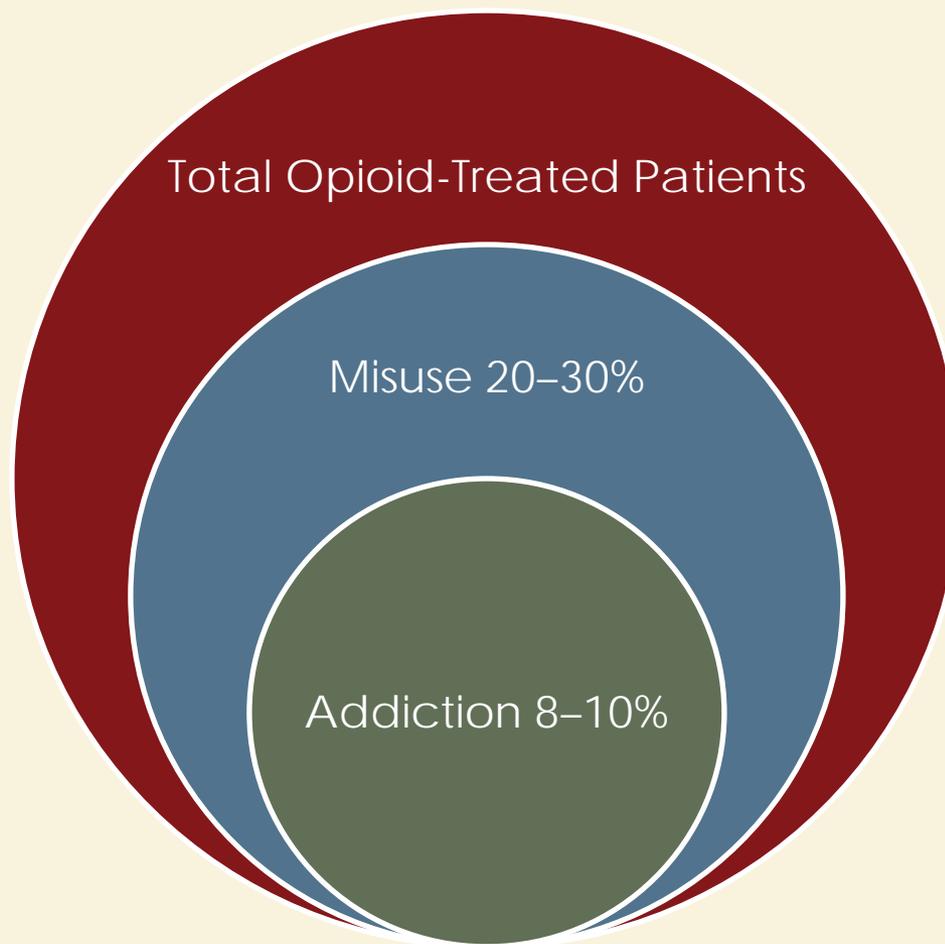
- <sup>1</sup>Gaskin, D. & Patrick, R. (2012). The economic costs of pain in the United States. *The Journal of Pain*, 13(8) 715-724.
- <sup>2</sup>Babor, T. F., Higgins-Biddle, J. C. (2001) *Brief intervention for hazardous and harmful drinking: A manual for use in primary care*. World Health Organization, Department of Mental Health and Substance Dependence.
- <sup>3</sup>U.S. Department of Health and Human Services, National Institutes of Health, National Institute on Drug Abuse. Retrieved from <http://www.drugabuse.gov/related-topics/medical-consequences-drug-abuse>
- <sup>4</sup>McLellan, A., Lewis, D., O'Brien, C., & Kleber, H. (2000). Drug dependence, a chronic medical illness: Implications for treatment, insurance, and outcomes evaluation. *Journal of American Medical Association*, 284(13), 1689-1695.
- <sup>5</sup>Madras, B., Compton, W., Avula, D., Stegbauer, T., Stein, J., & Clark, H. (2009). Screening, brief interventions, referral to treatment (SBIRT) for illicit drug and alcohol use at multiple healthcare sites: Comparison at intake and 6 months later. *Drug and Alcohol Dependence*, 99(1-3), 280-295.
- <sup>6</sup>Bernstein, J., Bernstein, E., Tassiopoulos, K., Heeren, T., Levenson, S., & Hingson, R. (2005). Brief motivational intervention at a clinic visit reduces cocaine and heroin use. *Drug and Alcohol Dependence*, 77(1), 49-59.
- <sup>7</sup>Bernstein, E., Edwards, E., Dorfman, D., Heeren, T., Bliss, C., & Bernstein, J. (2009). Screening and brief intervention to reduce marijuana use among youth and young adults in a pediatric emergency department. *Academic Emergency Medicine*, 16(11), 1174-1185.
- <sup>8</sup>Zahradnik, A., Otto, C., Crackau, B., Löhrmann, I., Bischof, G., John, U., & Rumpf, H. (2009). Randomized controlled trial of a brief intervention for problematic prescription drug use in non-treatment-seeking patients. *Addiction*, 104(1), 109-117.
- <sup>9</sup>Madras, B., Compton, W., Avula, D., Stegbauer, T., Stein, J., & Clark, H. (2009). Screening, brief interventions, referral to treatment (SBIRT) for illicit drug and alcohol use at multiple healthcare sites: Comparison at intake and 6 months later. *Drug and Alcohol Dependence*, 99(1-3), 280-295.
- <sup>10</sup>Miller, P. (2006). Patient attitudes towards self-report and biomarker alcohol screening by primary care physicians. *Alcohol and Alcoholism*, 41(3), 306-310.



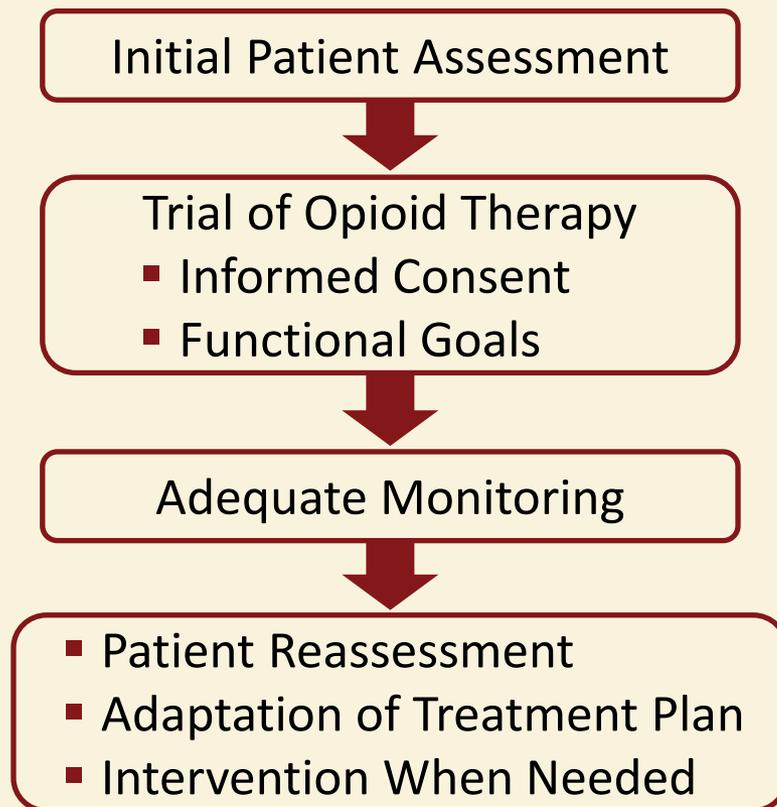
# Opioids for Chronic Pain: Summary and Planning for Change



# Relative Frequencies of Aberrant Use, Abuse, and Addiction<sup>1</sup>

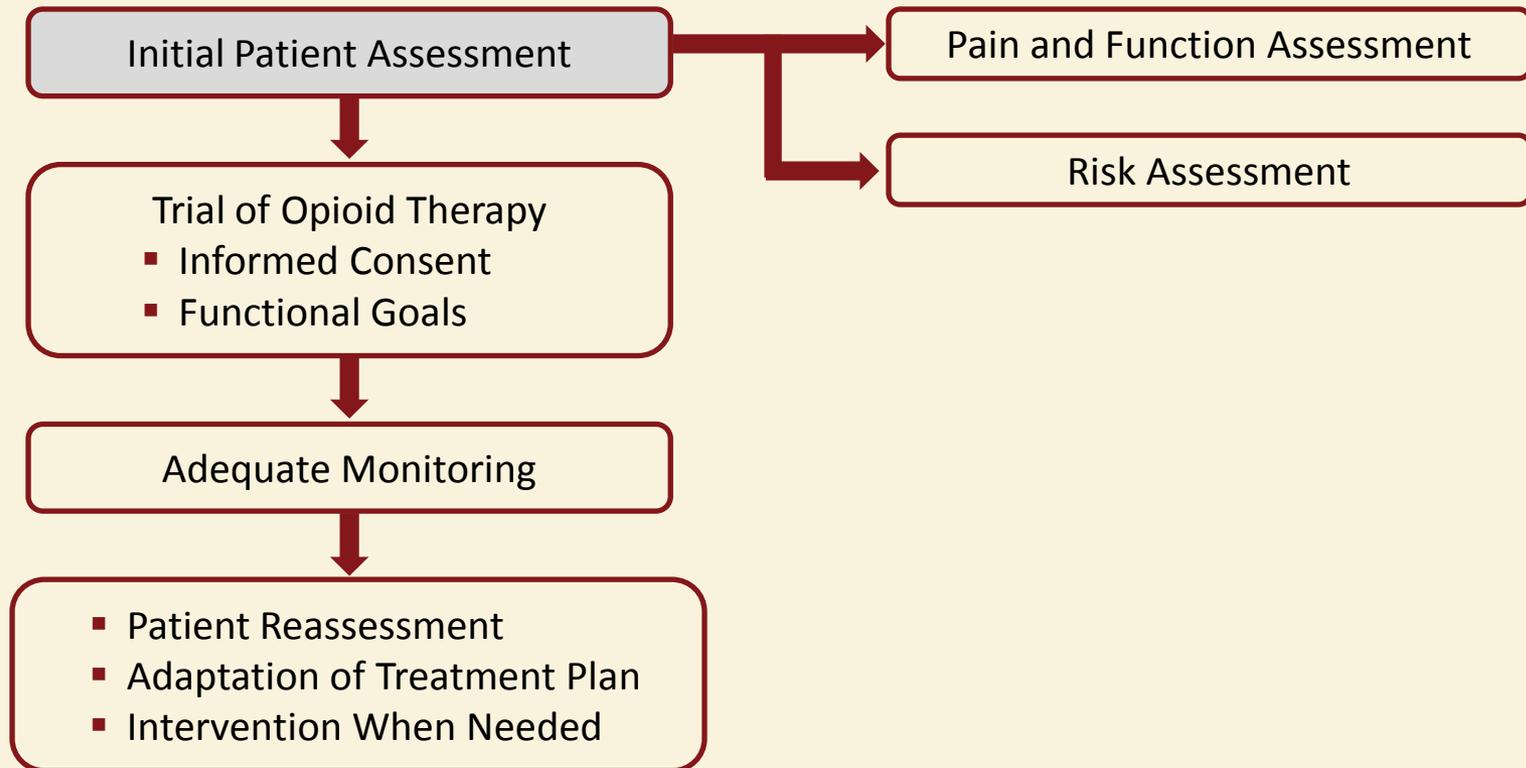


# Using Opioids to Treat Chronic Pain<sup>2</sup>



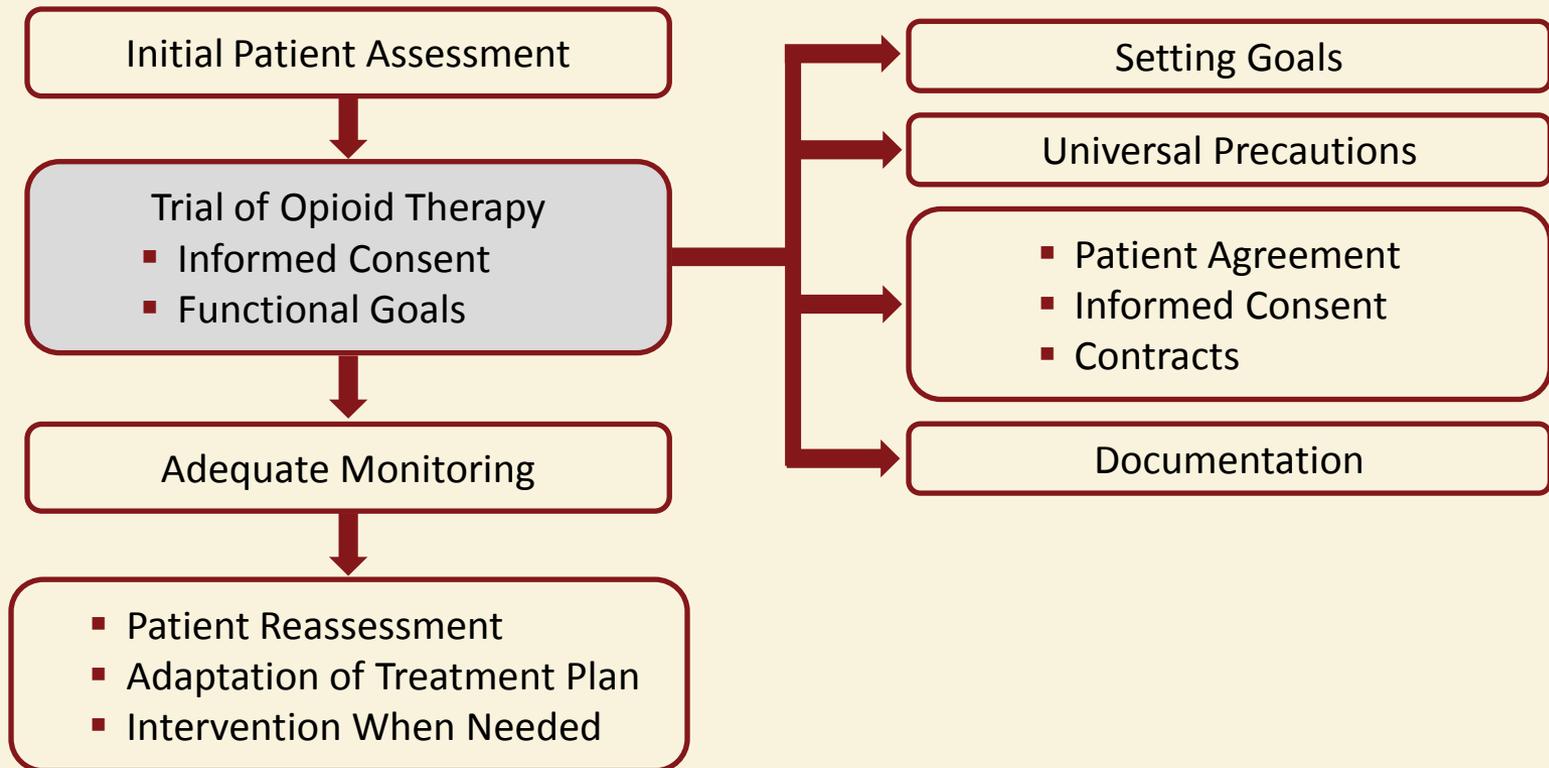
# Using Opioids to Treat Chronic Pain<sup>2</sup>

## continued



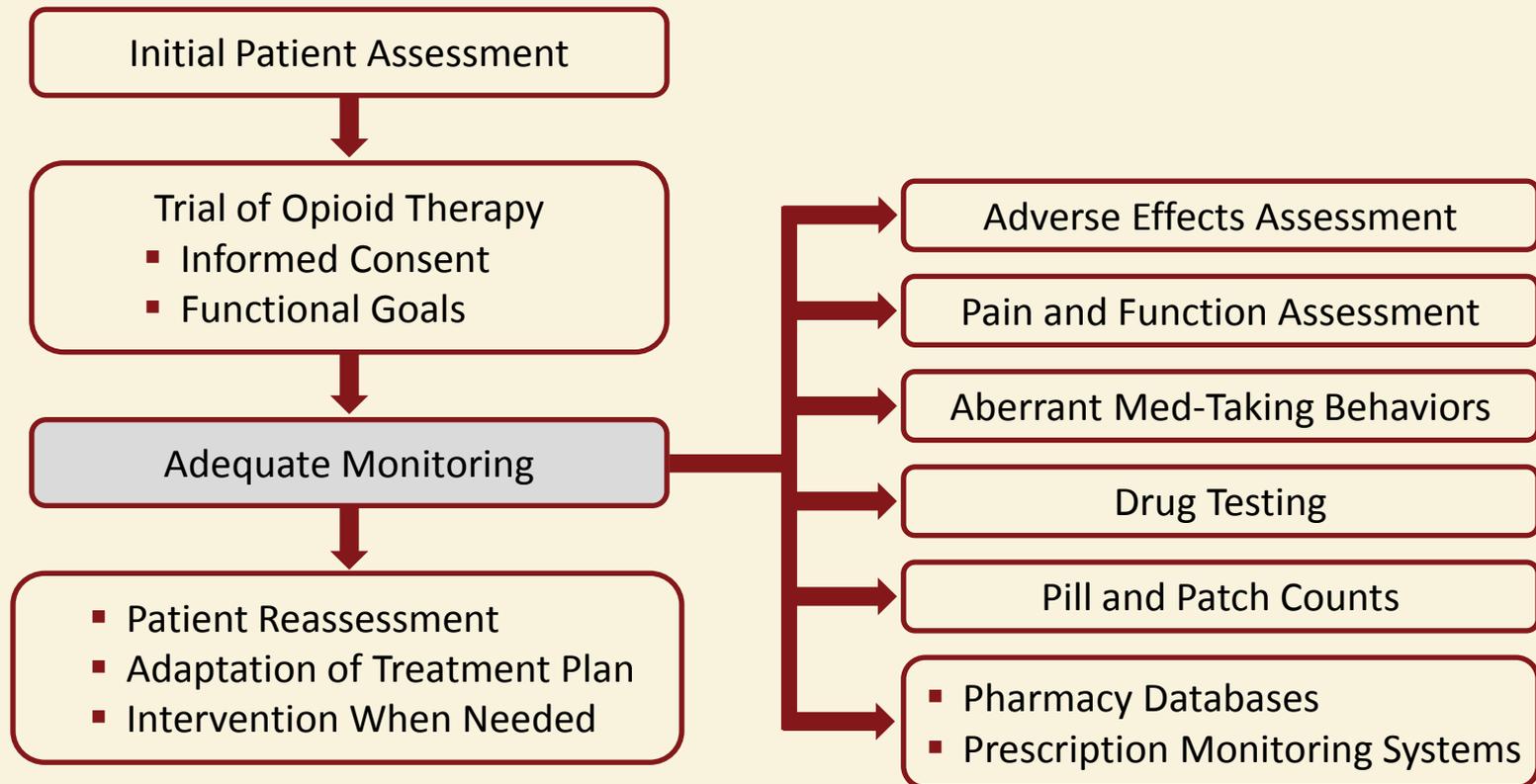
# Using Opioids to Treat Chronic Pain<sup>2</sup>

## continued

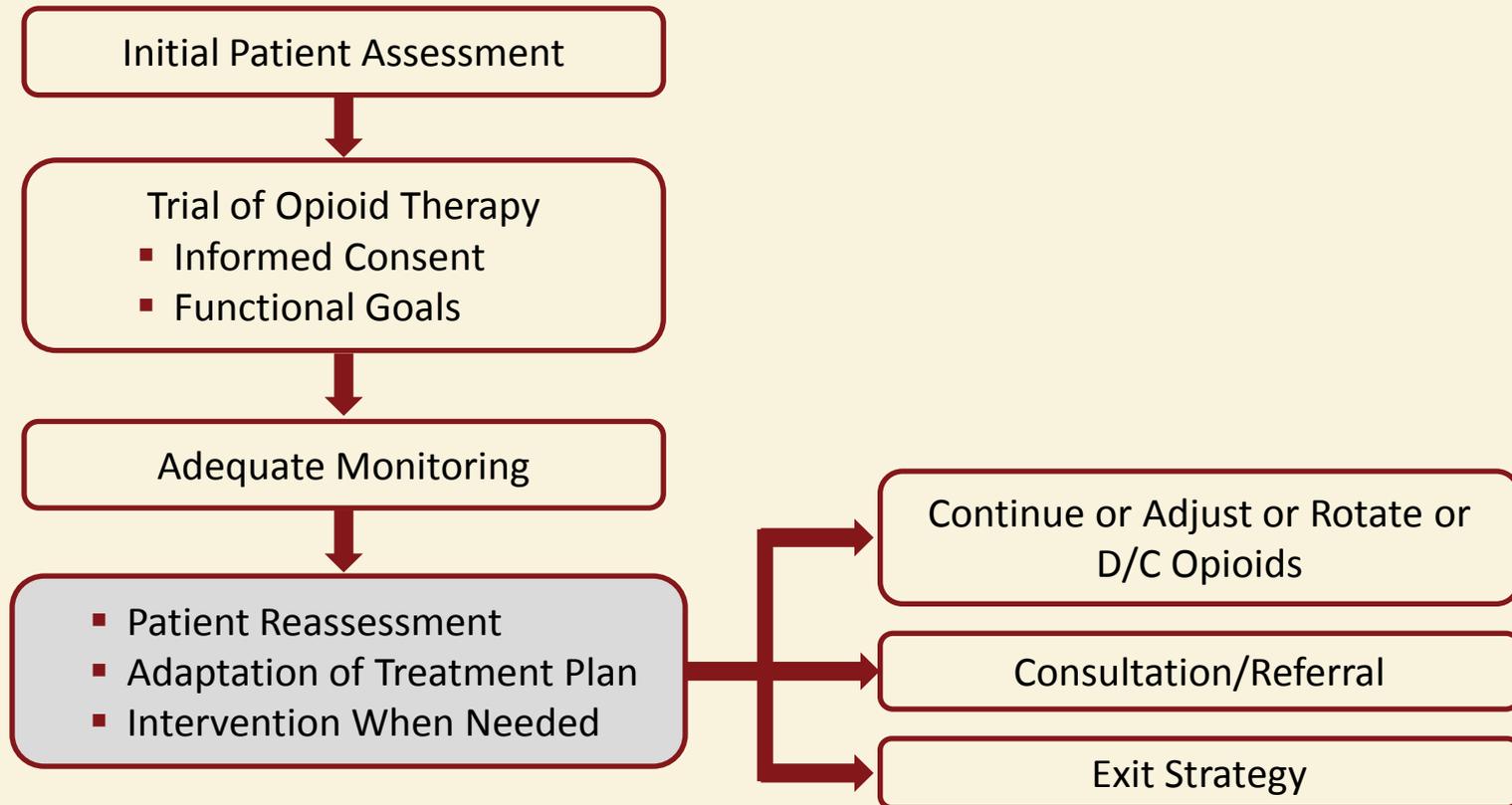


# Using Opioids to Treat Chronic Pain<sup>2</sup>

## continued



# Using Opioids to Treat Chronic Pain<sup>2</sup> continued



# Key Steps

- ▶ **Assess patients for pain, function, and risk...**

# Key Steps continued

- ▶ Assess patients for pain, function, and risk.
- ▶ **Set realistic goals.**

# Key Steps continued

- ▶ Assess patients for pain, function, and risk.
- ▶ Set realistic goals.
- ▶ **Use treatment agreements and informed consents.**

# Key Steps continued

- ▶ Assess patients for pain, function, and risk.
- ▶ Set realistic goals.
- ▶ Use treatment agreements and informed consents.
- ▶ **Monitor, monitor, monitor...**

# Key Steps continued

- ▶ Assess patients for pain, function, and risk.
- ▶ Set realistic goals.
- ▶ Use treatment agreements and informed consents.
- ▶ Monitor, monitor, monitor...
- ▶ **Recognize that not all aberrant medication-taking is addiction (patients with addiction lose control).**

# Key Steps continued

- ▶ Assess patients for pain, function, and risk.
- ▶ Set realistic goals.
- ▶ Use treatment agreements and informed consents.
- ▶ Monitor, monitor, monitor...
- ▶ Recognize that not all aberrant medication-taking is addiction (patients with addiction lose control).
- ▶ **Reassess patients for treatment adherence and pain relief.**

# Key Steps continued

- ▶ Assess patients for pain, function, and risk.
- ▶ Set realistic goals.
- ▶ Use treatment agreements and informed consents.
- ▶ Monitor, monitor, monitor...
- ▶ Recognize that not all aberrant medication-taking is addiction (patients with addiction lose control).
- ▶ Reassess patients for treatment adherence and pain relief.
- ▶ **Make needed adjustments in the treatment plan.**

# Key Steps continued

- ▶ Assess patients for pain, function, and risk.
- ▶ Set realistic goals.
- ▶ Use treatment agreements and informed consents.
- ▶ Monitor, monitor, monitor...
- ▶ Recognize that not all aberrant medication-taking is addiction (patients with addiction lose control).
- ▶ Reassess patients for treatment adherence and pain relief.
- ▶ Make needed adjustments in the treatment plan.

**Document, document, document...**

# Resources

▶ [www.painedu.org](http://www.painedu.org)

- PainEdu Manual
- Opioid Risk Management Supplement

▶ [www.pain.com](http://www.pain.com)

- Links to many pain sites

▶ [www.legalsideofpain.com](http://www.legalsideofpain.com)

- Current status of laws about opioid prescriptions

▶ [www.partnersagainstpain.com](http://www.partnersagainstpain.com)

- This PhRMA site provides access to patient management forms and information.



# Resources continued

## ▶ Online prescribing courses

- Six modules on topics related to the clinical management of patients with chronic pain
  - Each module is approved for Category 1 CME credit by the Boston University School of Medicine.
  - Registration is free of charge (supported by the Substance Abuse and Mental Health Services Administration of the U.S. Department of Health and Human Services).
  - To register, go to [www.opioidprescribing.com](http://www.opioidprescribing.com).



# Resources continued

- ▶ Physician Clinical Support System (PCSS-O)
  - As an extension of this CME program, registrants are eligible to enroll at no cost in the PCSS-O, which is supported by the Substance Abuse and Mental Health Services Administration and administered by the American Academy of Addiction Psychiatry and the American Osteopathic Academy of Addiction Medicine.
  - Each registrant has access to an experienced physician-mentor who is available for 1 year after the course for one-to-one consultation by telephone or email to answer specific questions. Visit [www.pcass-o.org](http://www.pcass-o.org) for details or to register.

# How to Obtain Your CME Certificate

PIM supports Green CME by offering your Request for Credit online. If you wish to receive acknowledgment for completing this activity, please follow the steps below:

1. Go to CME University at: [www.cmeuniversity.com](http://www.cmeuniversity.com) and register or login
2. Once logged in, click on “**Find Post-test/Evaluation by Course**” at the top of the page
3. Type in “**10764**” in the box, and hit enter
4. Click on the activity title
5. Complete the online evaluation and obtain your CME certificate to download and/or print for your files.

Upon completion of the online evaluation form, you will have immediate access to a certificate of attendance to print or save for your files. You can save your certificate by selecting the “Save” option on the print screen.

For any questions relating to CME (physician) certification for this activity, please contact Postgraduate Institute for Medicine at: [information@pimed.com](mailto:information@pimed.com) or (303) 799-1930.

# References

- <sup>1</sup>Vowles, K. E., McEntee, M. L., Julnes, P. S., Frohe, T., Ney, J. P., & van der Goes, D. N. (2015). Rates of opioid misuse, abuse, and addiction in chronic pain. *PAIN*, *156*(4), 569-576.
- <sup>2</sup>Katz, N. (2007). *Patient level opioid risk management: A supplement to the PainEDU.org manual*. Newton, MA: Inflexxion, Inc. (used with permission of Dr. Nathaniel Katz).