

**SAFE AND EFFECTIVE MANGEMENT OF  
NON-CANCER PAIN IN PRIMARY CARE**

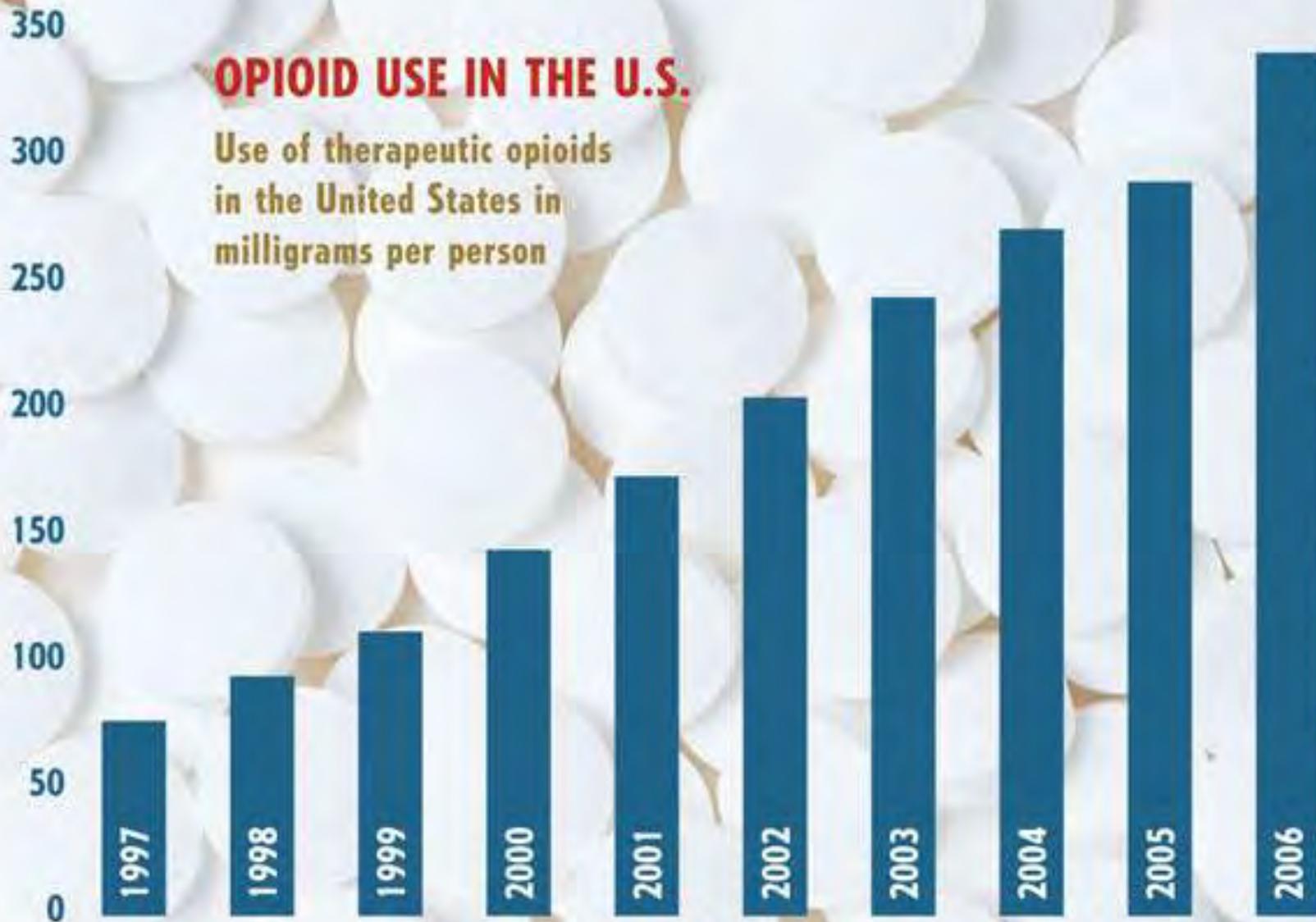
**Amy LaHood MD MPH FAAFP  
December 19, 2012**

# Objectives

- Identify trends & consequences of the current opioid epidemic
- Review evidence & expert guidelines for prescribing controlled substances
- Identify challenges/solutions to implementation & adoption of guidelines

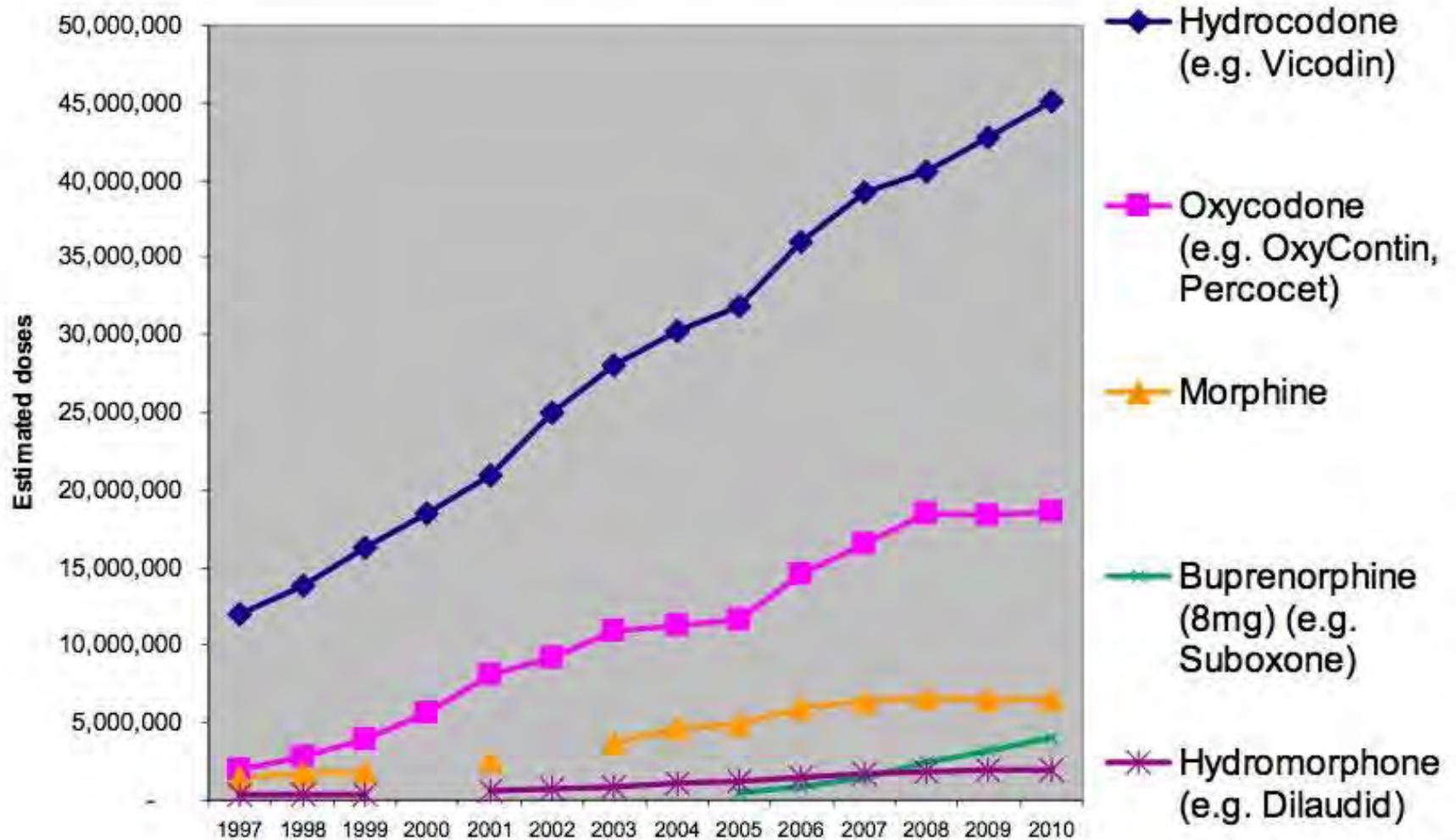
## OPIOID USE IN THE U.S.

Use of therapeutic opioids  
in the United States in  
milligrams per person



The use of therapeutic opioids—natural opiates and synthetic versions—increased 347% between 1997 and 2006, according to this U.S. Drug Enforcement data

## Rx Sales Washington State



# Epidemic of Chronic Pain

- Lasting >3 months
- Persists beyond what's expected, given degree of pathology
- Elicited by injury/disease
- Likely perpetuated factors pathogenically & physically remote from original cause
- Prevalence of chronic pain in US
  - 10–25%
  - Rate increases with age/ chronic illness/obesity
  - Opioids recommended therapies for management of several types of non–cancer related pain

# “The Promotion and Marketing of OxyContin: Commercial Triumph, Public Health Tragedy”

- No studies support benefit over other opioids
- Unprecedented Marketing
- Sales Reps trained “Risk of Addiction <1%”
- Original FDA Label– Risk of Abuse/Addiction
  - 1996 “Very Rare”
- Can be crushed, injected, inhaled or swallowed
- Risk of Abuse consistently minimized
- 2007 Purdue Pharma fined \$634M
- 2009 OxyContin Sales \$3B



# 5<sup>th</sup> Vital Sign

- ▣ Joint Commission Accreditation Hospital Organization (JCAHO)



# Opioid Trends

- ▣ US consumes **80%** global oxycodone
- ▣ US consumes **>95%** global hydrocodone
- ▣ 1999–2010 Opiate Prescriptions quadrupled
- ▣ **15,500 Deaths** prescription OD (2009)
- ▣ More likely to die of Opiate OD than MVA
- ▣ 5,500 people took prescription pain meds non-medically for 1<sup>st</sup> time (2010)
- ▣ 4.8% use prescription pain pills non-medically



# Public Health Impact of Opioid Use

For every 1 overdose death in 2010, there were...

**733** non-medical users

**108** People abusing/dependent

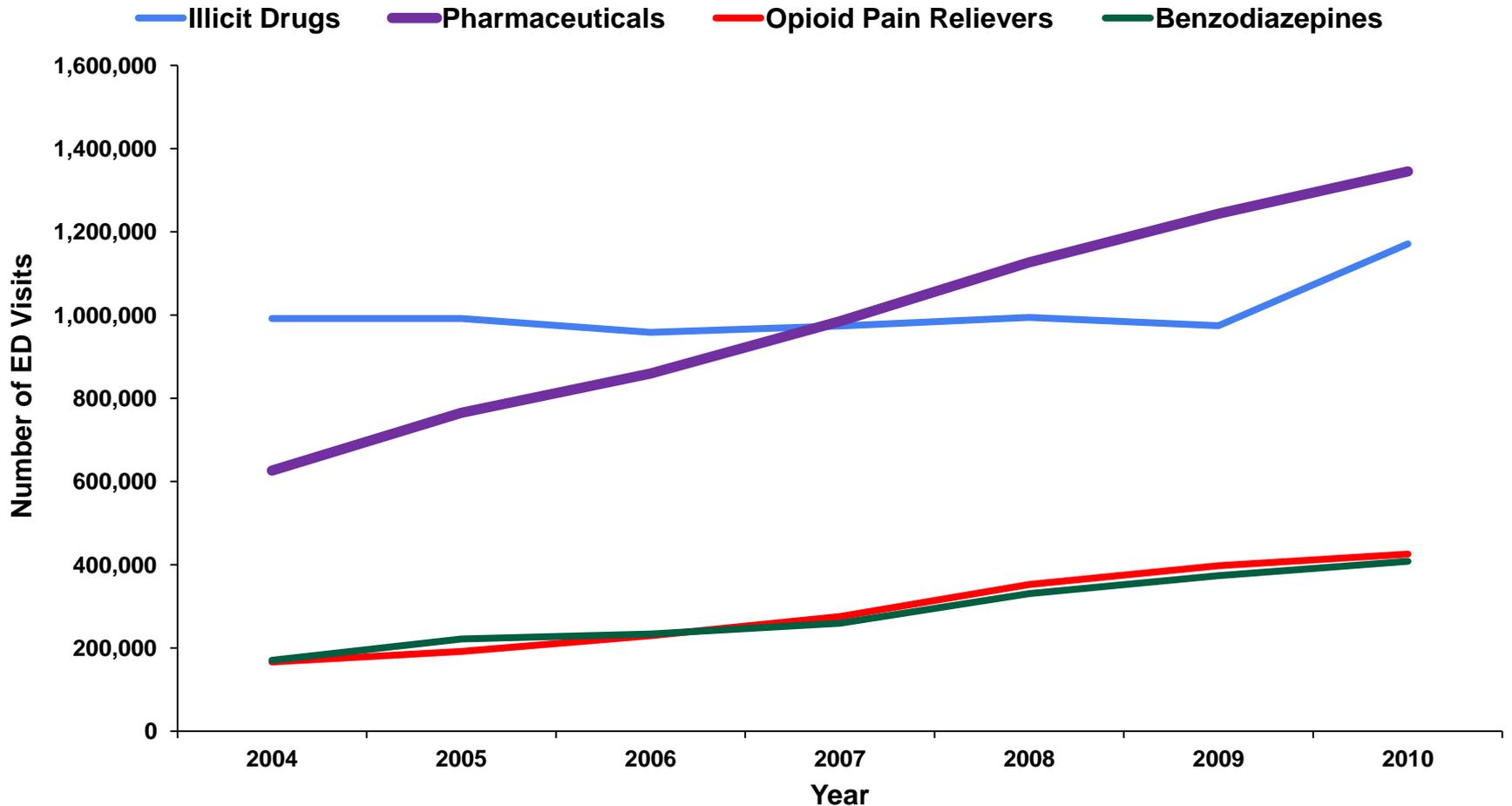
**26** ED visits for abuse

**10** Abuse treatment admissions



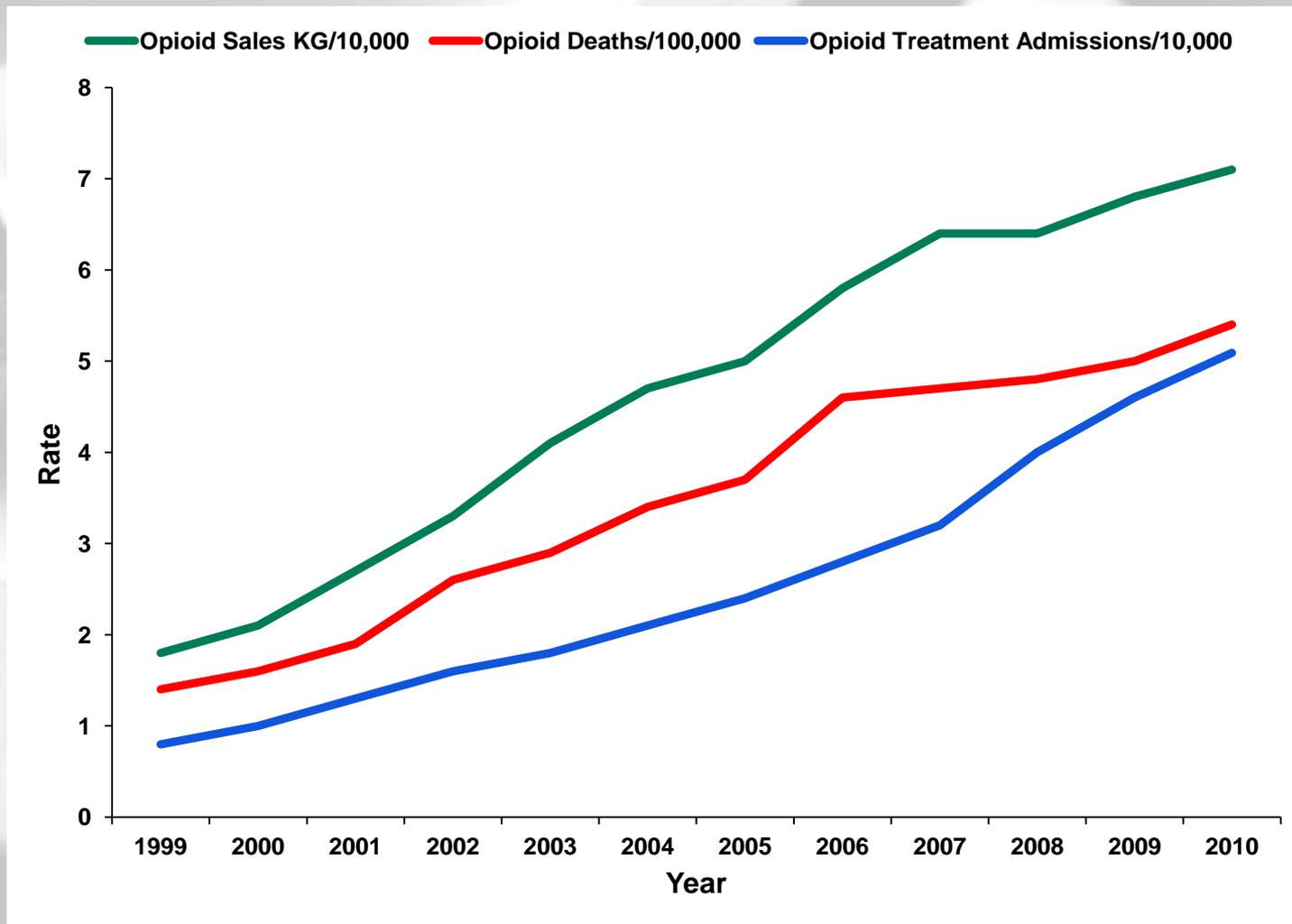
Treatment admissions are for primary use of opioids from Treatment Exposure Data set.  
Emergency department visits are from DAWN (Drug Abuse Warning Network), <https://dawninfo.samhsa.gov/default.asp>.  
Abuse/dependence and nonmedical use in the past month are from the National Survey on Drug Use and Health.

# Emergency Department Visits Related to Drug Misuse or Abuse—United States, 2004–2010



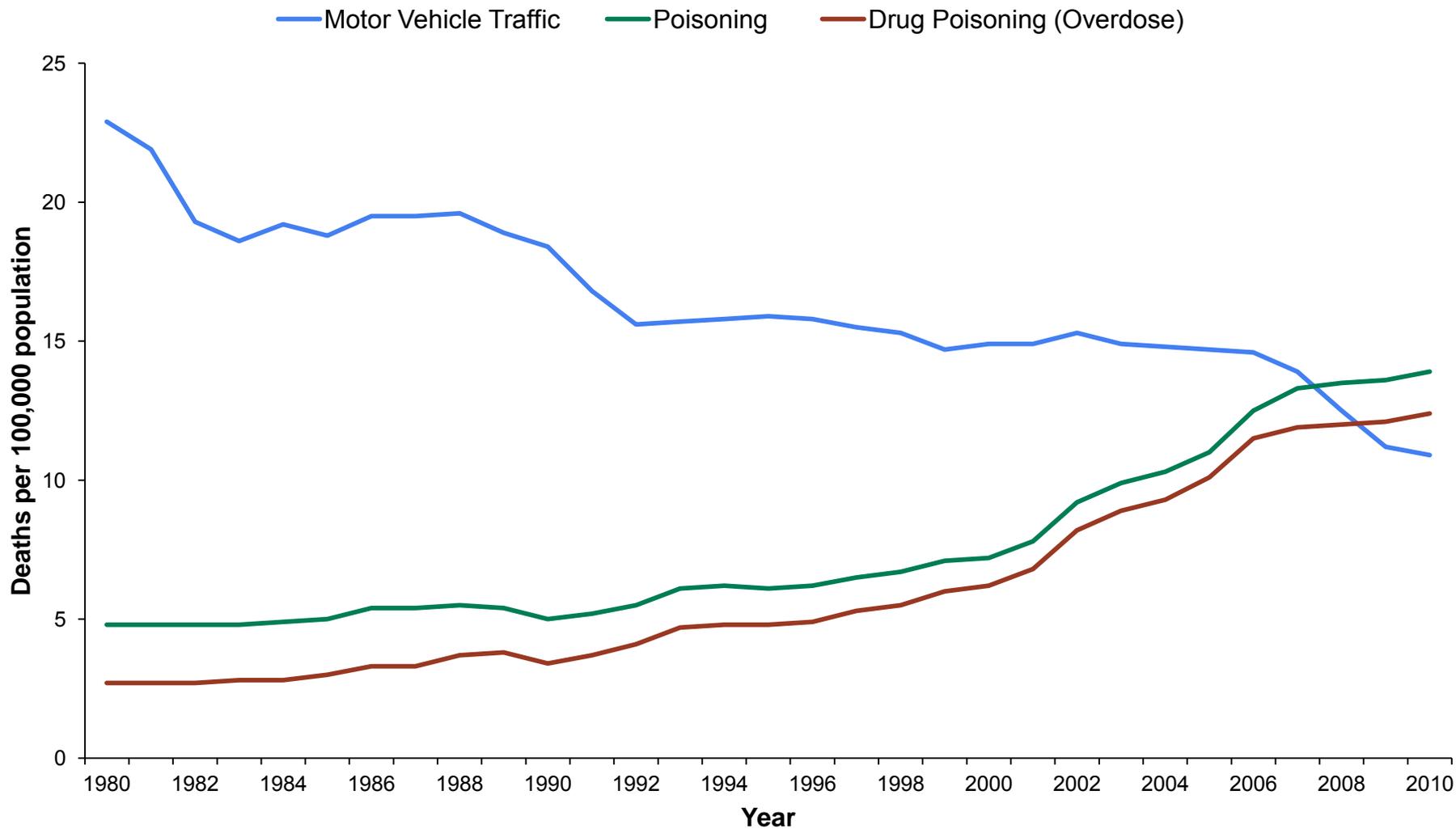
SAMHSA. Highlights of the 2010 Drug Abuse Warning Network (DAWN) Findings on Drug-Related ED Visits, 2011.

# Rates of Opioid Overdose Deaths, Sales, and Treatment Admissions, United States, 1999–2010



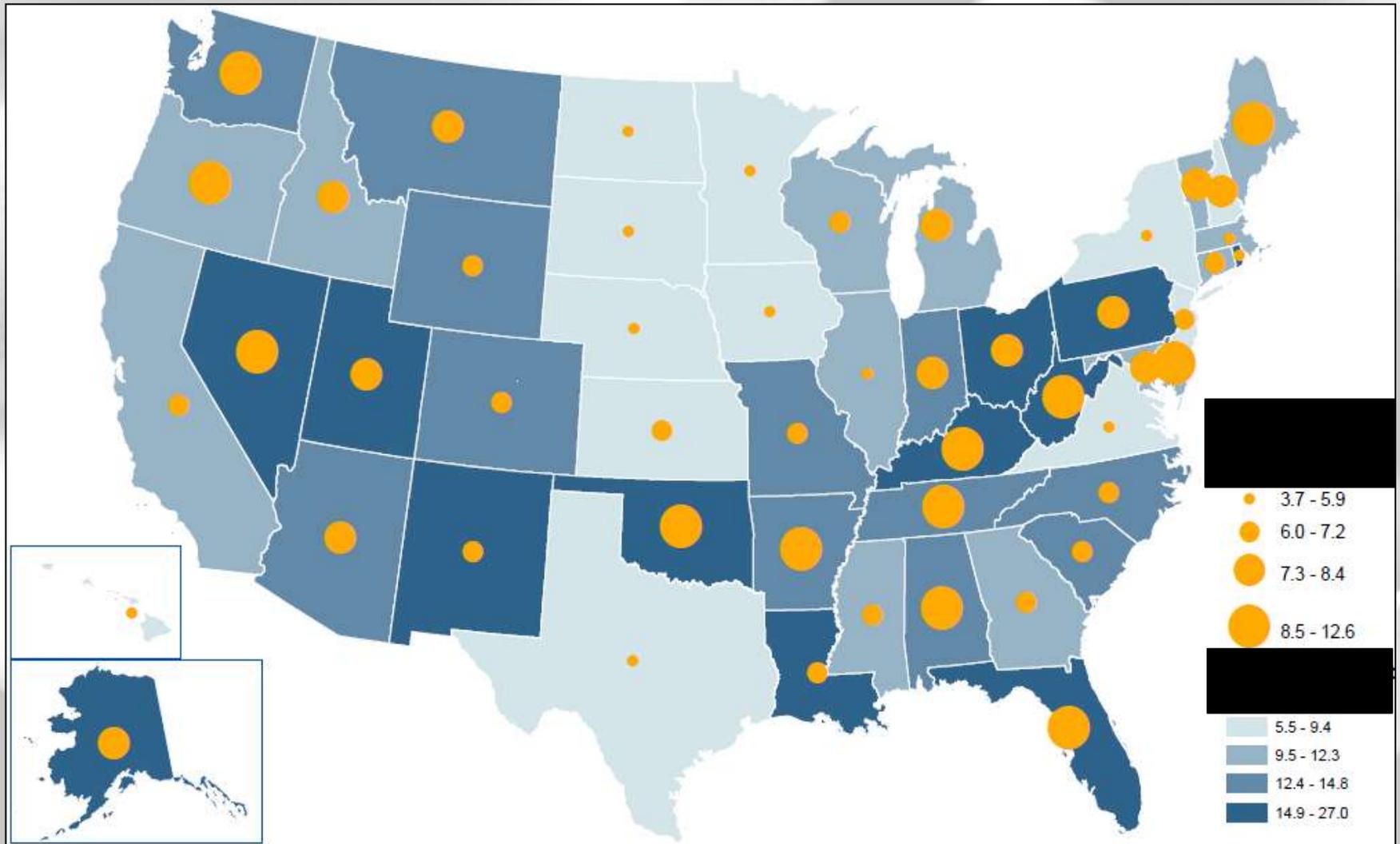
CDC. *MMWR* 2011. [http://www.cdc.gov/mmwr/preview/mmwrhtml/mm60e1101a1.htm?s\\_cid=mm60e1101a1\\_w](http://www.cdc.gov/mmwr/preview/mmwrhtml/mm60e1101a1.htm?s_cid=mm60e1101a1_w). Updated with 2009 mortality and 2010 treatment admission data.

# MVA vs. Poisoning Deaths



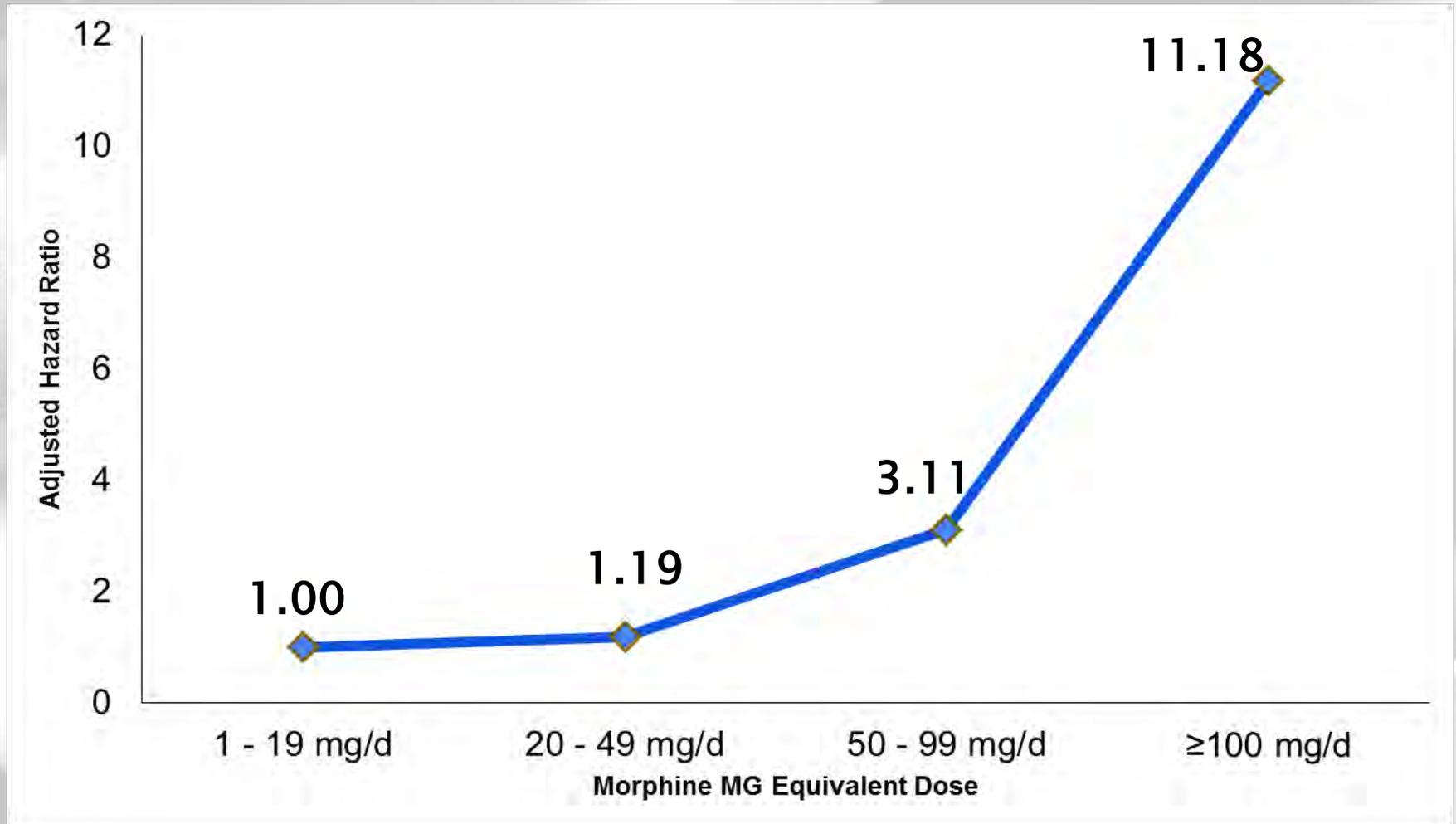
NCHS Data Brief, December, 2011. Updated with 2009 and 2010 mortality data

# Drug Overdose Death Rate, 2008, and Opioid Pain Reliever Sales Rate, 2010



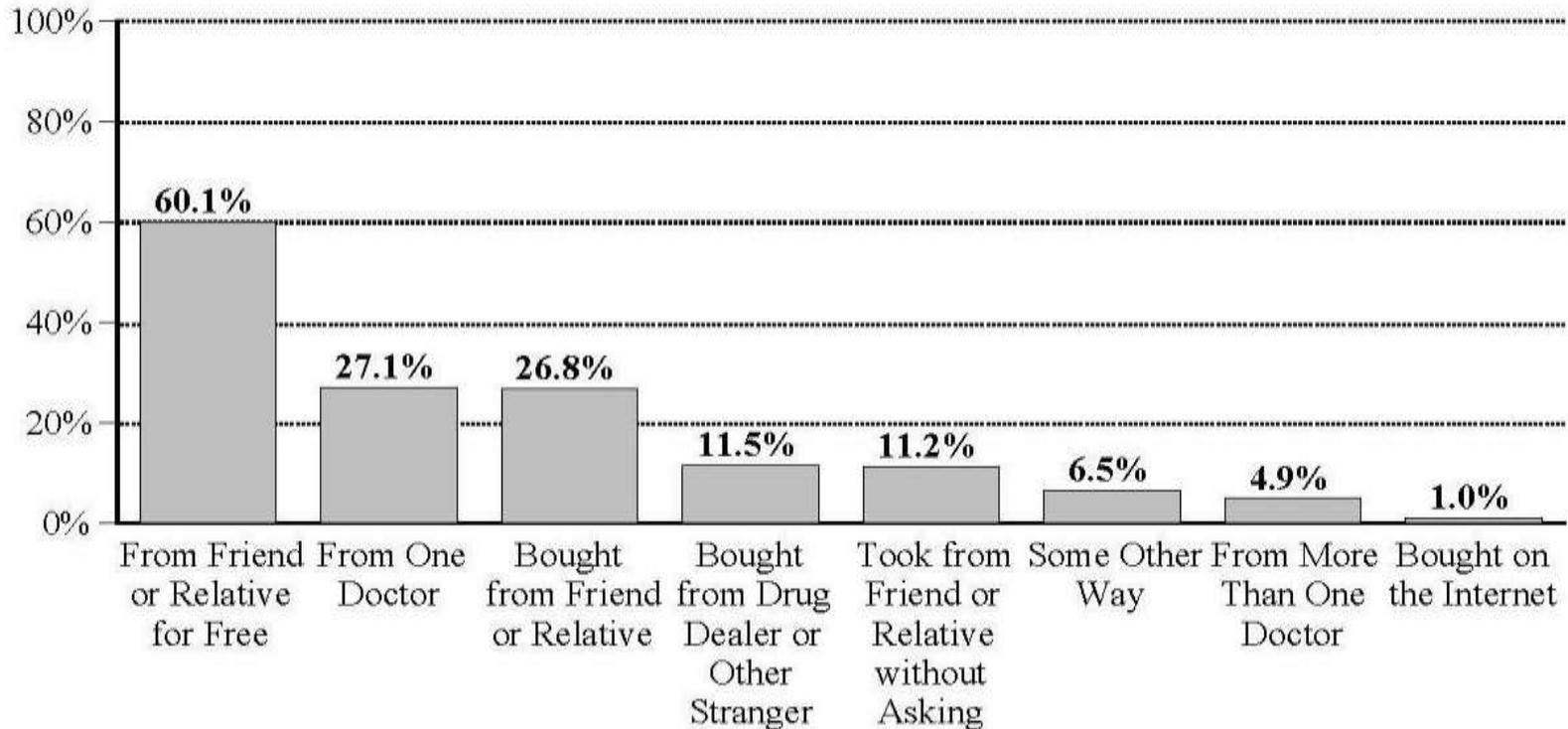
National Vital Statistics System, 2008; Automated Reports Consolidated Orders System, 2010.

# High Opioid Dose and Overdose Risk



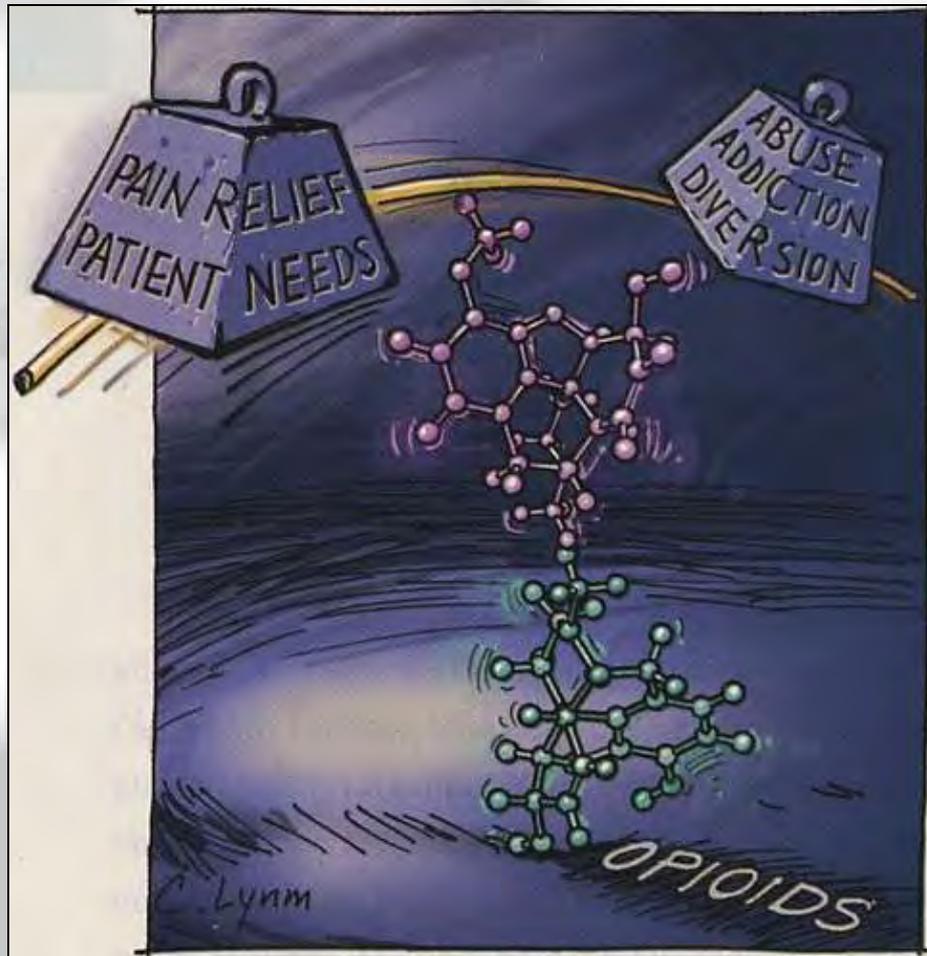
\* Overdose defined as death, hospitalization, unconsciousness, or respiratory failure.

**Method of Obtaining Prescription Pain Relievers  
Reported by Past Month Nonmedical Users Ages 12 or Older  
(2009 & 2010 Combined Annual Averages)**



National Survey on Drug Use and Health 2010.

Ensuring patients with pain are safely and effectively treated while reduce risks opioid abuse & overdose



- Complex
- Dynamic
- Subjective
- Time-consuming
- Emotional
- Social
- Difficult

Opioids have proven efficacy and (relative) safety for treating acute pain & pain during terminal illness

Opioids do NOT have proven efficacy or safety for treating chronic pain long-term

Meta-analysis 26 studies– Insufficient evidence on QOL or functional improvement for long-term opioids in chronic non-cancer pain

Ballantyne JC, Shin NS. Efficacy of opioids for chronic pain: a review of the evidence. *Clin J Pain.* 2008;24(6):469–478.

Ballantyne JC. Clinical and administrative data review presented to FDA May 30th and 31st 2012. 2012.

Noble M, Treadwell JR, Tregear SJ, et al. Long-term opioid management for chronic noncancer pain. *Cochrane Database Syst Rev.* 2010(1):CD006605.

Eriksen J, Sjogren P, Bruera E, Ekholm O, Rasmussen NK. Critical issues on opioids in chronic non-cancer pain: an epidemiological study. *Pain.* 2006;125:172–179.

Dillie KS, Fleming, MF, Mundt, MP, French, MT. Quality of life associated with daily opioid therapy in a primary care chronic pain sample. *J Am Board Fam Med.* 2008;21(2):108–117.

Toblin RL, Mack KA, Perveen G, Paulozzi LJ. A population-based survey of chronic pain and its treatment with prescription drugs. *Pain.* Jun 2011;152(6):1249–1255.

# Opioid Efficacy

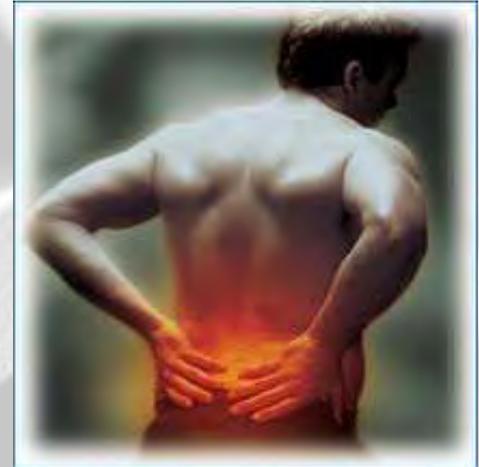
Comparison study of Chronic pain >6mo  
Opioids vs non-opioids  
Opioids poorer functional status, worse  
pain control & QOL



# 90% of Chronic Pain where opiates not proven helpful



Fibromyalgia



Axial low back pain  
w/o pathoanatomic  
diagnosis



Headaches

# Clinical Guidelines

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

the association with use of opioids, 2010 and 2012  
 Opioid Treatment Guidelines

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

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**Abstract** Objective: To provide clinical guidelines for the use of chronic opioid therapy in chronic noncancer pain. Design: Systematic review of the literature. Setting: Outpatient and inpatient settings. Participants: Patients with chronic noncancer pain. Interventions: Chronic opioid therapy. Measurements and Main Results: Chronic opioid therapy is associated with improved pain and function in patients with chronic noncancer pain. However, the benefits are modest and the risks are significant. Conclusions: Chronic opioid therapy should be used only in patients with chronic noncancer pain who have failed to respond to other treatments and who have no other options for pain relief. The benefits of chronic opioid therapy are modest and the risks are significant. Chronic opioid therapy should be used only in patients with chronic noncancer pain who have failed to respond to other treatments and who have no other options for pain relief.

**ANNALS** Use of chronic opioid therapy for chronic noncancer pain has increased substantially. The purpose of this guideline is to provide clinicians with the best available evidence on the use of chronic opioid therapy for chronic noncancer pain and to provide a multi-disciplinary approach to the use of chronic opioid therapy. Although evidence is limited, this review suggests that chronic opioid therapy can be an effective treatment for

**AMDG**  
 AGENCY MEDICAL DIRECTORS GROUP

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

46 representatives of 101 agencies have endorsed this interagency guideline.

**2010 Update**

**What is New in this Revised Guideline:**

- New data, including recently endorsed to support the "Opioid MED dosing" threshold
- Tools for calculating dosages of co-prescribing medications and when tapering
- Updated screening tools for assessing substance abuse, suicide risks, and addiction
- Updated evidence base for tracking function and pain
- New drug testing practices and algorithms
- Information on access to monitoring and consultation (including telemedicine options)
- New patient education materials and resources
- Guidance on working with emergency departments to reduce opioid abuse
- New patient tools and resources to help maintain opioid use

You can find this guideline and related tools at the Washington State Agency Medical Directors site at [www.agencymedicaldirectors.com](http://www.agencymedicaldirectors.com).

**City Health Information**

**PREVENTING ABUSE OF PRESCRIPTION OPIOID DRUGS**

- Physicians and health care staff can play a major role in reducing risks associated with opioid treatment, particularly lethal drug overdose.
- For acute pain:
  - If opioid use warranted, prescribe only short-acting agents.
  - A 3-day supply is usually sufficient.
- For chronic noncancer pain:
  - Avoid prescribing opioids unless other approaches to treatment have been demonstrated to be ineffective.
  - Avoid whenever possible prescribing opioids to patients taking benzodiazepines because of the risk of fatal respiratory depression.

The use of prescription opioids to manage pain has increased 30-fold over the past 20 years in the United States. Although opioids are indicated and effective for the management of certain types of acute pain and certain pain, their use in treating chronic noncancer pain is not well established.

Concomitant with the growth in opioid prescribing, opioid-related health problems have increased. Between 2014 and 2016, the number of emergency department visits for opioid addiction and abuse in New York City (NYC) more than doubled, rising from approximately 4,000 to more than 8,000 visits. In 2016, 1 in every 4 emergency department patients (adults) in NYC presented with an opioid-related condition, including medication use. In NYC, one-third of emergency department patients with opioid-related conditions are hospitalized. The most common hospital diagnosis is "Opioid withdrawal." Rates of hospitalization for opioid-related conditions may be increased when opioids are taken in excess of the prescribed amount, particularly when taken in combination with benzodiazepines.

This set of prescription opioids to manage pain has increased 30-fold over the past 20 years in the United States. Although opioids are indicated and effective for the management of certain types of acute pain and certain pain, their use in treating chronic noncancer pain is not well established.

**WISDOM IN OPIOID ANALGESIA USE AND CONSEQUENCES** NEW YORK CITY, 2014-2016

**Emergency Department Visits for Opioid Abuse**

**Unintentional Opioid Deaths Among Adults**

# Universal Precautions



**First, Do No Harm**

# Do your own evaluation

- History
  - Brief pain inventory, long pain inventory
- Physical Exam
- Old Records
- Order diagnostic testing as indicated
- Make Diagnosis
  - Add Chronic pain to specific diagnosis



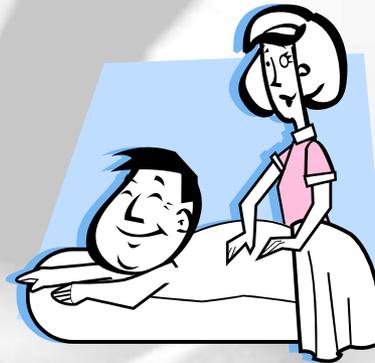
# Assess Risk for Abuse/Misuse

- **COMM™ – Current Opioid Misuse Measure**
- **SOAPP® – Screener and Opioid Assessment for Patients in Pain**
- **Mental Health Evaluation**
  - PHQ-2, PHQ-9, GAD-7

(Estimates Drug Abuse in Chronic Pain 18–41%)

# Non-Opioid Treatments

- Optimize Sleep & Mood
- Weight loss (if indicated)
- Dietary/GI (if indicated)
- Surgical Eval (if indicated)
- Cold/Heat/TENS tx/Steroid injection/nerve block
- Physical therapy/ acupuncture/ massage/manipulation /
- New Mattress/Pillow/shoes/exercise/yoga
- Tylenol/NSAIDS/Topical anesthetics, topical antiinflammatory/muscle relaxant (acute)/Tramadol



# Discuss expectations

- Non-judgmental, empathetic, respectful
- Strengthen physician-patient relationship
- Discuss realistic expectation  
(20-40% improvement in pain)
- Functional Improvement - End Goal

# Opiate Prescriptions

- How taken
- Maximum pills/ day
- Maximum pills/month



## Bad Example

Hydrocodone 5/500

1-2 tabs every 4-6h prn pain

#60

2 refills

## Good Example

Hydrocodone 5/500

1-2 tabs every 4-6h prn breakthrough  
pain (2pills/day)

#60/month

2 refills

# Opioid Informed consent/ Treatment Agreement

## Accept known risks

- Constipation
- sedation
- nausea
- vomiting
- Pruritis
- delayed gastric emptying
- hypogonadism
- muscle rigidity and myoclonus
- sleep disturbance
- pyrexia
- diminished psychomotor performance
- cognitive impairment
- hyperalgesia
- dizziness
- Tolerance
- Dependence
- Addiction
- Respiratory depression, death

# Informed consent/ Treatment Agreement

- Goals of treatment decrease pain/improve function, not cure
- 1 prescribing physician
- 1 pharmacy
- Urine Drug Screening as requested
- No early refills/ call-ins
- Must adhere to tx plan & keep appt
- Medication cannot be shared, sold or given to another person
- Terms of violation of contract



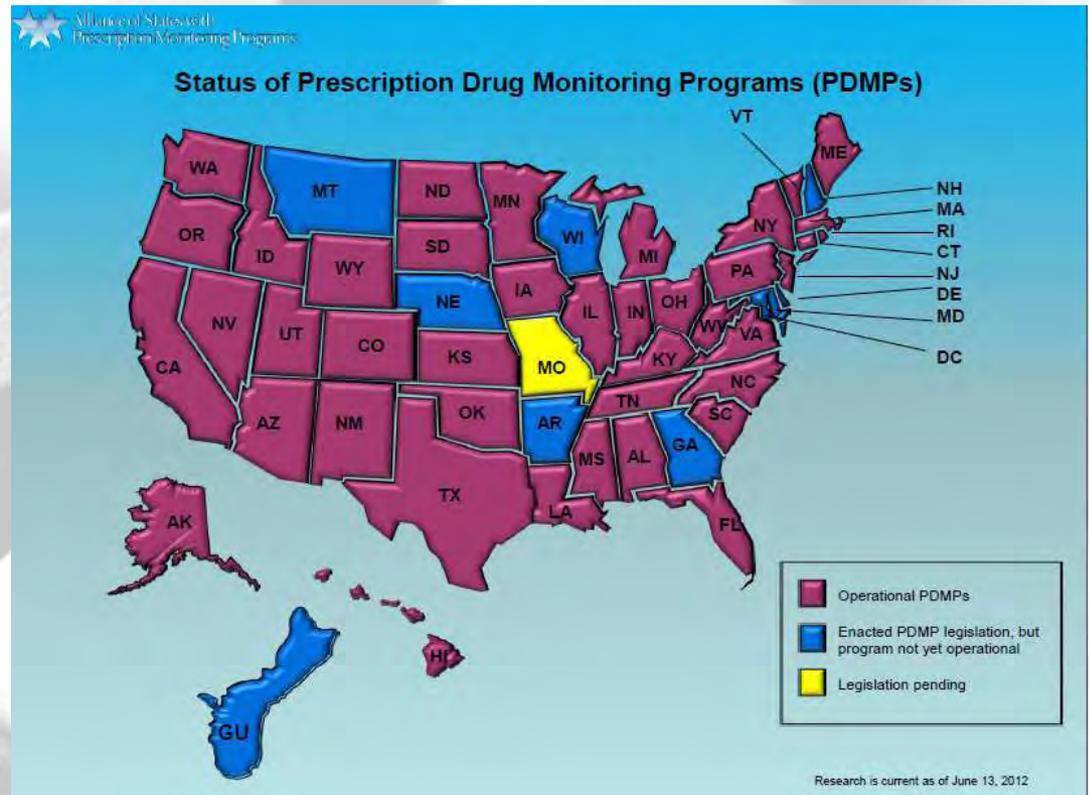
# Monitoring Aberrant Behaviour

- INSPECT state database
- Urine tox
- “Red Flags” ...early refills, stolen scripts
- Adherence to treatment plan



# Prescription Drug Monitoring Programs (PDMPs)

- ❑ Operational in 42 states
- ❑ Indiana INSPECT
- ❑ Focus PDMPs on
  - Patients at highest risk of abuse and overdose
  - Prescribers who deviate from accepted medical practice



# Chronic Pain Maintenance

- ▣ **5 A's – Documentation/ Ongoing Assessment**
  - Activities Daily Living
  - Affect
  - Analgesia
    - ▣ Brief pain inventory
  - Adverse effects meds
  - Aberrant Behavior
    - ▣ (INSPECT, Urine Tox)

# Consider Consultation when..

- **High Risk– mental illness/SUD**
- **Suspect addiction** (Impaired control over drug use, Compulsive use, Continued use despite harm , Cravings)
- **Poor response to opioid escalations**
- **Opioid Dosing >100 Milliequivalents Morphine (OD risk increased 7–9X)**
- **Utilizing Methadone (involved in 30% OD Deaths)**
- **Treating w/ Opiates & Benzodiazepines**
- **Tx causing more problems than the condition**
- **Assistance in weaning– especially benzos**

# Wean Opioids if

- No functional improvement
- Failure to comply with contract (not egregious violation)
- Significant ARD

# Termination of Opiate

- Confirmed Diversion of prescribed opiate
- Forging Prescriptions
- Confirmed illicit drug use (ie cocaine, heroin)
- **ALWAYS refer for Chemical Dependency Evaluation & Treatment**

Objective • Non-judgemental • Empathetic

**Do not abandon patient**



# AVOID

- Controlled substances & Alcohol
- Benzodiazepines & Opiates in same patient
- Writing a script without all information



# Drug Testing



- Urine – preferred test
- Qualitative & Quantitative drug testing
- Understand potential false positives
- Understand potential false negatives
- Recognize when sample may be adulterated
- Utilize patient specific data to interpret urine drug test results

# Urine Drug Testing

- Condition of treatment
- Good Screen for illicit drugs
- More limited detect adherence
- American Pain Society
  - Any patient receiving chronic therapy (> 30 days)
    - Consideration to periodic testing of
  - History of substance abuse
  - High risk for abuse
  - Diversion suspected



# Which test to order?

- Urine drug screen– qualitative (Immunoassay) – \$
  - Most common: initial screening
  - Generally used by ER, OB/GYN, and work–place physicals
- Comprehensive urine drug screen– quantitative (GC–MS) – \$\$\$\$
  - Confirmatory testing
  - Compliance testing

# Urine Drug Test– Qualitative (aka Immunoassay)

## ▣ Pro's

- Presence/absence of drug class
- Cheap
- Point-of-care
  - ▣ Within minutes
  - ▣ Help guide therapy

## ▣ Con's

- Will not tell specific medication
- False positives
- True negative
  - ▣ Semi-synthetic or synthetic opioids
  - ▣ Benzodiazepines
  - ▣ Concentration dependent
    - Must know detection thresholds for test used
- May require confirmation
- Know limitations

# Comprehensive Urine Drug Test– Quantitative (aka– GC–MS testing)

## ▣ Pros

- Standard for confirmatory testing
- Presence or absence
- Specific drug and/or metabolite
- Most accurate, sensitive and reliable
- Preferred test if looking for specific medication

## ▣ Cons

- Time-consuming (~ 1 week turnaround time)
- Send-out lab
- Cost ~ \$250
- Identification of drugs based on test design
  - ▣ Fentanyl
  - ▣ Clonazepam

# Length of Time Drugs of Abuse Can Be Detected in Urine

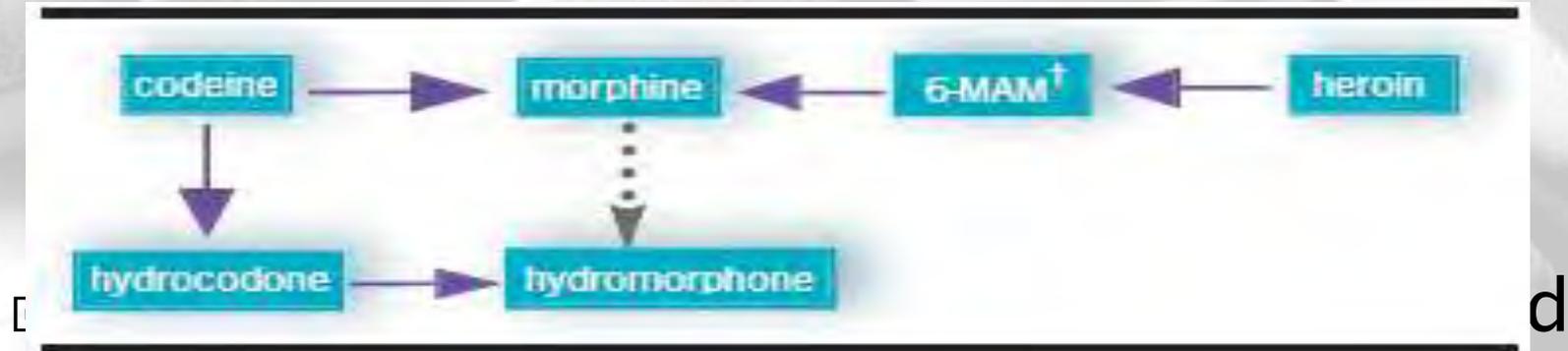
<b>Alcohol</b>	7–12 hours
<b>Amphetamine</b>	48 hours
<b>Methamphetamine</b>	48 hours
<b>Barbiturate</b>	
Short-acting	24 hours
Long-acting	3 weeks
<b>Benzodiazepine</b>	
Short-acting	3 days
Long-acting	30 days
<b>Cocaine metabolites</b>	2–4 days
<b>Marijuana</b>	
Single use	3 days
Moderate use (4 times/wk)	5–7 days
Daily use	10–15 days
Long-term heavy smoker	> 30 days
<b>Opioids</b>	
Codeine	48 hours
Heroin (morphine)	48 hours
Hydromorphone	2–4 days
Methadone	3 days
Morphine	48–72 hours
Oxycodone	2–4 days

## Summary of Agents Contributing to False Positive Results by Immunoassay

False Positive	Agents
<b>Alcohol</b>	Short-chain alcohols(e.g. isopropyl alcohol)
<b>Amphetamines</b>	Amantadine, Benzphetamine, Bupropion, Chlorpromazine, Clobenzorex, <i>L</i> -Deprenylc, Desipramine, Dextroamphetamine, Ephedrine, Fenproporex, Isometheptene, Isoxsuprine, Labetalol MDMA, Methamphetamine, <i>L</i> -Methamphetamine (Vick's inhaler), Methylphenidate, Phentermine, Phenylephrine, Phenylpropanolamine, Promethazine, Pseudoephedrine, Ranitidine, Ritodrine, Selegiline, Thioridazine, Trazodone, Trimethobenzamide, Trimipramine
<b>Benzodiazepines</b>	Oxaprozin, Sertraline
<b>Cannabinoids</b>	Dronabinol, Efavirenz, Hemp-containing foods, NSAIDs, Proton pump inhibitors, Tolmetin
<b>Cocaine</b>	Coca leaf tea, Topical anesthetics containing cocaine
<b>Opioids, opiate</b>	Dextromethorphan, Diphenhydraminee, Heroin, Opiates (codeine, hydromorphone, hydrocodone, morphine), Poppy seeds, Quinine, Quinolones, Rifampin, Verapamil
<b>Phencyclidine</b>	Dextromethorphan, Diphenhydramine, Doxylamine, Ibuprofen, Imipramine, Ketamine, Meperidine, Mesoridazine, Thioridazine, Tramadol, Venlafaxine, O-desmethylvenlafaxine
<b>Tricyclic antidepressants</b>	Carbamazepine, Cyclobenzaprine, Cyproheptadine, Diphenhydramine, Hydroxyzine, Quetiapine

# Opioid: Drug metabolism

- Understanding metabolism pathway key to interpreting results

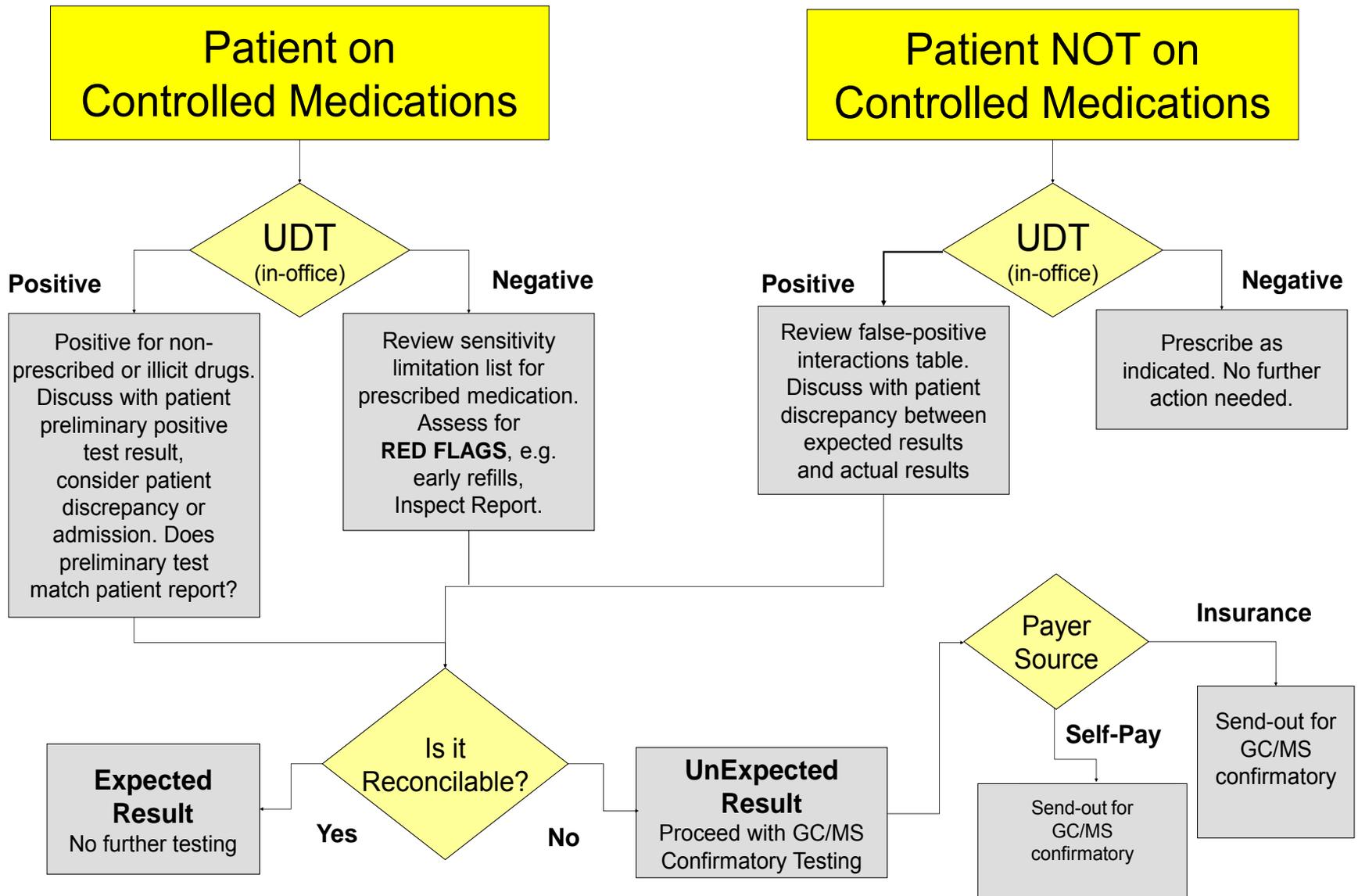


metabolites to ensure correct interpretation

# Interpreting Immunoassay (POC) Results

Medication	POC category	Interpretation
<p><b>Benzodiazepines</b></p> <p>Alprazolam (Xanax)</p> <p>Clonazepam (Klonopin)</p>	Benzodiazepines	<p>Alprazolam and most other benzos are likely to be detected via iCup if the patient is using the medication chronically as opposed to as needed</p> <p>Clonazepam is a difficult benzodiazepine to detect via both iCup and GC-MS testing</p> <p>Clonazepam may reveal a negative result in an adherent patient</p>
<p><b>Natural opioids</b></p> <p>Tylenol with codeine (Tylenol #3)</p> <p>Morphine (MS Contin)</p>	<p>Opiates</p> <p>Oxycodone (requires much higher concentration for +)</p> <p>Opiates</p>	Likely to be detected via iCup, especially scheduled chronic dosing
<p><b>Semisynthetic opioids</b></p> <p>Oxycodone (Oxycontin)</p> <p>Hydrocodone/APAP (Vicodin)</p>	<p>Oxycodone</p> <p>Opiates (requires much higher concentration for +)</p> <p>Oxycodone</p> <p>Opiates (requires much higher concentration for +)</p>	<p>Less likely than natural opioids to be detected, especially with PRN usage</p> <p>May see (+) oxycodone panel and (-) opiate panel in a patient taking semisynthetic opioids</p> <p>GC-MS can allow for specific interpretation of opiate metabolites, possibly indicating other drug use</p>
<p><b>Synthetic opioids</b></p> <p>Fentanyl (Duragesic)</p> <p>Methadone (Methadose)</p> <p>Tramadol (Ultram)</p>	<p>Not detected</p> <p>Methadone</p> <p>Not detected</p>	<p>Fentanyl is not tested via the iCup opiate panel</p> <p>Methadone is very difficult to accurately assess via iCup due to being a synthetic opioid</p> <p>Tramadol, a non-narcotic, is not detected via the iCup</p>
<p><b>Non-BZD hypnotics</b></p> <p>Zolpidem (Ambien),</p> <p>Eszopiclone (Lunesta),</p> <p>Zaleplon (Sonata)</p>	Not detected	Sleep agents are not detected via the iCup (with the exception of benzodiazepines used for this purpose)

# Urine Drug Testing



# Urine Toxicology

- Interpretation is complex
- Urine toxicology is one piece of information
- Care-termination decisions should not be based on single piece of information

# Challenges in Providers' adoption of Opiate Guidelines

- Lack of Time
- Lack of knowledge
- Patient expectations
- Decreased patient satisfaction
- Strain physician–patient relationship
- Physician belief that opiates are safe
- Physician belief that not necessary



# Indiana Guideline Providers

- Online Provider Toolkit to be published– Spring 2013
- Summary of evidence & expert opinion
- Copy/Link to validated tools to help providers practice w/in guidelines
- Guidance for safe prescribing of prescription drugs
- Patient education

*First, Do No Harm*