

# **Prescription Drug Abuse: Can we make it safer? 2010 California Area Conference**

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# Disclosure

- Anthony Dekker, DO has presented numerous programs on Chronic Pain Management and Addiction Medicine. The opinions of Dr Dekker are not necessarily the opinions of the Indian Health Service or the USPHS. Dr Dekker has no conflicts to report.

# Opioids in Indian Country

- Chronic Non-Malignant Pain Evaluation and Care evaluations
- Increasing complications from misuse and diversion
- Provider and Pharmacy concerns
- Patient and Community expectations
- DEA investigations
- Patient perceptions of lack of care

# Chronic Non-Malignant Pain (CNMP)

- Osteoarthritis
- Low back pain
- Myofascial pain
- Fibromyalgia
- Headaches (e.g., migraine, tension-type, cluster)
- “Central pain” (e.g., spinal cord injury, stroke, MS)
- Chronic abdominal pain (e.g., chronic pancreatitis, chronic PUD, IBS)
- CRPS, Types I and II
- Phantom limb pain
- Peripheral neuropathy
- Neuralgia (e.g., post-herpetic, trigeminal)

# Treatment Goals

- In malignant pain we treat to goal
- In chronic non malignant pain we treat to function

## Treatment goals in managing CNMP:

- Improve patient functioning
- Identify, eliminate/reduce pain reinforcers
- Increase physical activity
- Decrease or eliminate illegal or complicating drug use

**The goal is NOT pain eradication!**

# **CNMP:**

## *The clinical challenge*

- **Be aware of the “Heart Sink” patient.**
- **Be aware of the borderline patient**
- **Remain within your area of expertise.**
- **Stay grounded in your role.**
  - **FIRST....Do no harm**
  - **THEN.....**
    - **Cure sometimes**
    - **Comfort always**

# Non-pharmacologic treatments for CNMP

- ✓ Physical therapy – conditioning, thermal therapies
- ✓ Pain Psychology – relaxation / counseling / expectations orientation
- ✓ Traditional Indian Medicine
- ✓ Massage therapy
- ✓ Osteopathic Manipulative Therapies
- ✓ Spinal manipulation
- ✓ Acupuncture, with and without stimulation
- ✓ TENS units
- ✓ Nerve blocks
- ✓ Pain management group
- ✓ Yoga and meditation

# Non-opioid medications for CNMP

- Non-steroidal anti-inflammatory drugs (NSAIDS)
- Tricyclics
- Anti-depressants/anxiolytics
- Anti-convulsants
- Muscle relaxants
- Topical preparations—e.g. anesthetics, aromatics
- Others (e.g., tramadol)

## Non-opioid medications (cont.)

- **Non-steroidal anti inflammatory drugs (NSAIDs) Inhibit prostaglandin synthesis:**
  - Works on Cyclo-Oxygenase (COX) COX-1 and COX-2
  - ↓ pain-minutes to hours
- **COX-1:**  
Aspirin, Ibuprofen, Naproxen, Ketoprofen, Indomethacin, Diclofenac, Piroxicam, Sulindac

## Non-opioid medications (cont.)

- **COX-2 Inhibitors:**
  - ↓ gastrointestinal effect
  - Normally not present but induced during inflammation
  - Celecoxib (Celebrex<sup>®</sup>);
  - Rofecoxib (Vioxx<sup>®</sup>); Valdecoxib (Bextra<sup>®</sup>)  
*withdrawn from market due to increased cardiovascular risk*

# Non-opioid medications (cont.)

- **Antidepressants:**

- ↓ reuptake of serotonin & norepinephrine
- ↑ sleep
- Enhance descending pain-modeling paths
- Tricyclics —amitriptyline (Elavil<sup>®</sup>)—most studied/most SE's and nortriptyline (Pamelor<sup>®</sup>)
- SSRIs—not as effective
- SNRI (venlafaxine, Effexor<sup>®</sup>; duloxetine, Cymbalta<sup>®</sup>) preliminary evidence of efficacy in neuropathic pain

# Non-opioid medications (cont.)

- **Antiepileptic drugs:**
  - ↓ neuronal excitability
  - Exact mechanism is unclear
  - Not due to antiepileptic activity  
e.g. phenobarbital is poor analgesic
  - Good for stabbing, shooting, episodic pain from peripheral nerves
  - Gabapentin (Neurontin<sup>®</sup>)
  - Pregabalin (Lyrica<sup>®</sup>)
  - Carbamazepine (Tegretol<sup>®</sup>)
  - Topiramate (Topamax<sup>®</sup>)

# Non-opioid medications (cont.)

- **Other drugs:**
  - **Tramadol (Ultram)**
    - Mixed mu opioid agonist & NE/serotonin reuptake inhibitor
    - Seizure threshold changes
  - **Corticosteroids**
    - ↓ inflammation, swelling
  - **Baclofen**
    - GABA receptor agonist
    - Used for spasticity

# Indications for opioid therapy

1. Is there a *clear diagnosis*?
2. Is there *documentation* of an adequate work-up?
3. Is there *impairment of function*?
4. Has non-opioid multimodal therapy *failed*?
5. Have *contraindications* been ruled out?

## Begin opioid therapy:

Document

Monitor

Avoid poly-pharmacy

# Contraindications to opioid therapy

- Allergy to opioid medications ~ *relative*
- Current addiction to opioids ~ *?absolute*
- Past addiction to opioids ~ *??absolute*
- Current /past addiction, opioids never involved ~ *relative; ??absolute if cocaine*
- Severe COPD or OSA~ *relative*
- *Concurrent Sedative hypnotics~relative*

**Pain Patient on  
Chronic Opioids**

**IHS Provider**

**+**

**Are chronic opioids appropriate?**

**YES!**

Re-document:

Diagnosis  
Work-up  
Treatment goal  
Functional status  
Pain P&P

Monitor Progress:

Medication counts  
Function  
Refill flow chart  
Occasional urine  
toxicology  
Adjust medications  
Watch for scams

**UNSURE**

Physical Dependence vs Addiction:

Chemical dependence  
screening

Toxicology tests  
Medication counts  
Monitor for scams

Reassess for  
appropriateness

**YES!**

Discontinue opioids  
Instruct patient on  
withdrawal symptoms  
OBOT Buprenorphine  
Tell patient to go to ER  
if symptoms emerge

**NO**

Educate patient  
on need to  
discontinue opioids

Emergency?

ie: overdoses  
selling meds  
altering Rx

**NO!**

Stop or quick taper  
(document in chart)

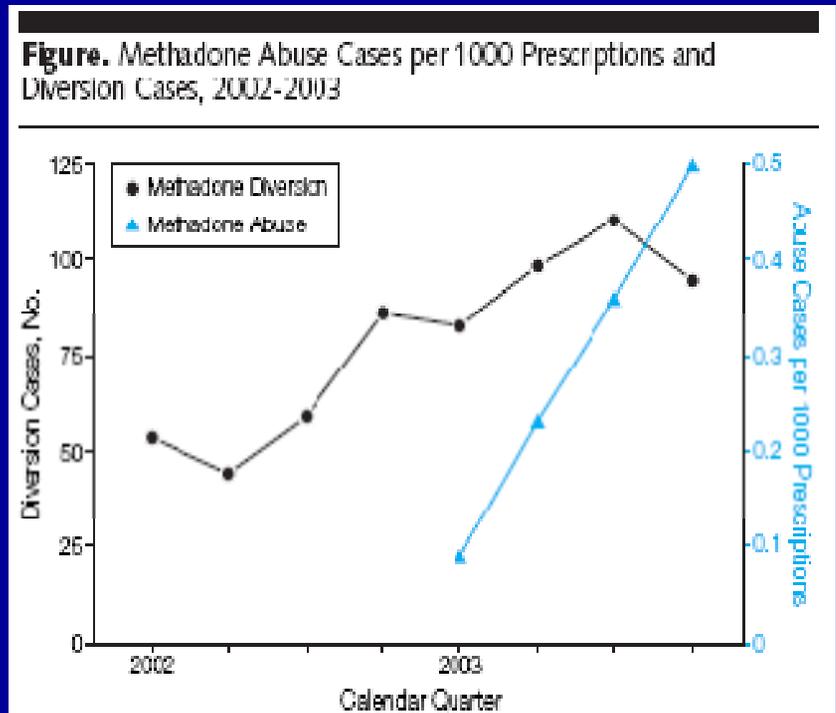
↓ OR  
10-week structured taper

↓ OR  
Discontinue opioids at  
end of structured taper

# FDA Methadone Warning

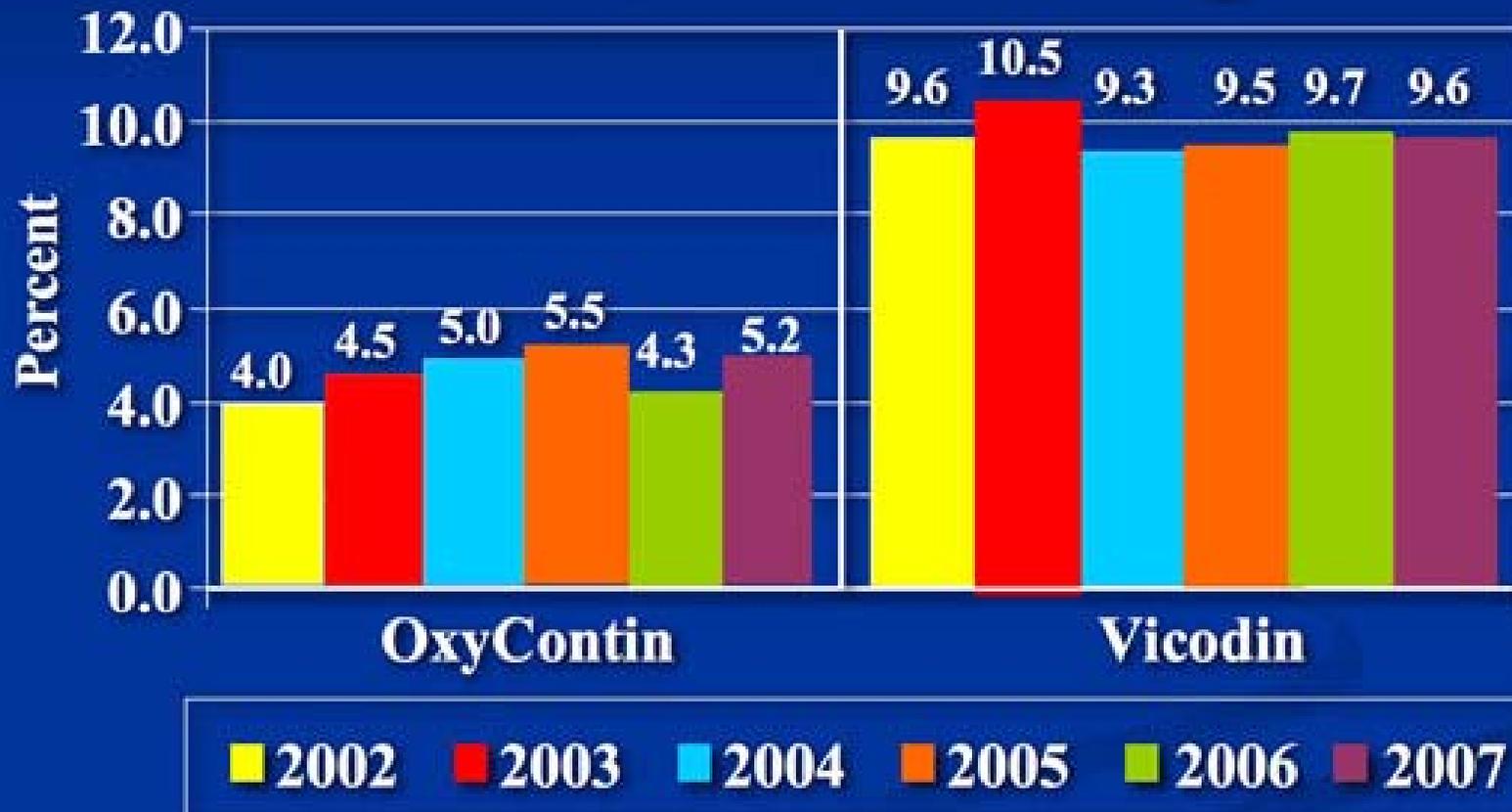
## FDA ALERT [11/2006]: Death, Narcotic Overdose, and Serious Cardiac Arrhythmias

FDA has reviewed reports of death and life-threatening side effects such as slowed or stopped breathing, and dangerous changes in heart beat in patients receiving methadone. These serious side effects may occur because methadone may build up in the body to a toxic level if it is taken too often, if the amount taken is too high, or if it is taken with certain other medicines or supplements. Methadone has specific toxic effects on the heart (QT prolongation and Torsades de Pointes). Physicians prescribing methadone should be familiar with methadone's toxicities and unique pharmacologic properties. Methadone's elimination half-life (8-59 hours) is longer than its duration of analgesic action (4-8 hours). Methadone doses for pain should be carefully selected and slowly titrated to analgesic effect even in patients who are opioid-tolerant. Physicians should closely monitor patients when converting them from other opioids and changing the methadone dose, and thoroughly instruct patients how to take methadone. Healthcare professionals should tell patients to take no more methadone than has been prescribed without first talking to their physician.



# Issues of Concern

**Percent of 12th Graders Reporting Nonmedical Use of OxyContin and Vicodin in the Past Year Remained High**



No year-to-year differences are statistically significant.

## Upper Graph Fig 2a

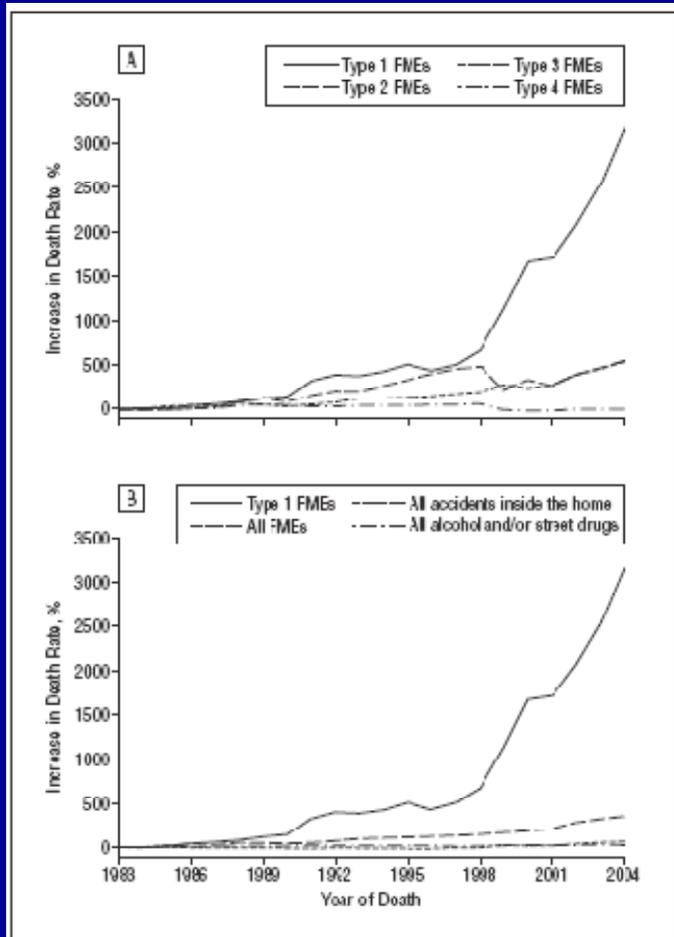


Figure 2. Trends in the US fatal medication error (FME) death rate by type of circumstance in which the FME occurs (A) and for various comparison groups (B) (January 1, 1983–December 31, 2004).

- Type 1 (*Home with “EtOH/Street”*) has increased by **3196%**
  - **Steep and accelerating rate ( $p < 0.001$ )**
- Type 2 (*Home without EtOH/Street*) and Type 3 (*Non-Home with EtOH/Street*) increased 564% and 555%, respectively
- Type 4 (*Non-Home without “EtOH/Street”*) only increased 5%

## Lower Graph Fig 2b

- Type 1 has three components:
  - Fatal Medication Errors
  - Occurring at home
  - In conjunction with EtOH/Street drugs
- The 3 components graphed separately show slight increase
- Component combined (Type 1) shows steep increase by **3196%**

# Schedules of Substances

Schedule I →

No Accepted Medical Use  
High Potential for Abuse/Dependency  
Example: LSD, Heroin

Schedule II →

Accepted Medical Use  
High Potential for Abuse/Dependency  
Example: Morphine, Oxycodone

Schedule III →

Accepted Medical Use  
Less Potential for Abuse/Dependency  
Example: Hydrocodone compounds

Schedule IV →

Accepted Medical Use  
Low Potential for Abuse/Dependency  
Example: Benzodiazepines

Schedule V →

Accepted Medical Use  
Low Potential for Abuse/Dependency  
Example: Codeine cough syrup

# Prescription Requirements

In order to be legal, a prescription must:

- Be issued by a registered practitioner
- For a legitimate medical purpose
- In the usual course of professional practice

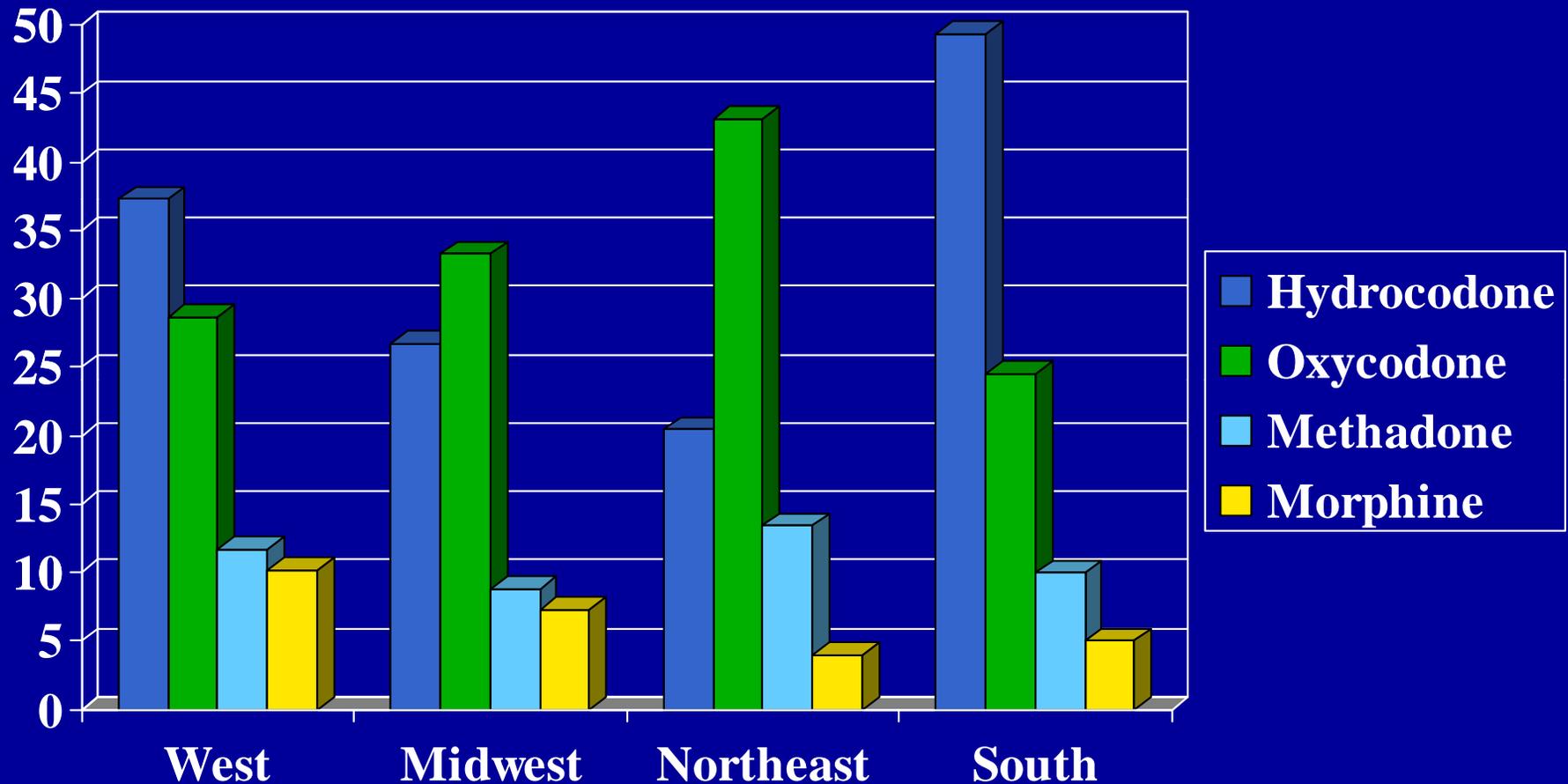


21 CFR §1306.04(a)

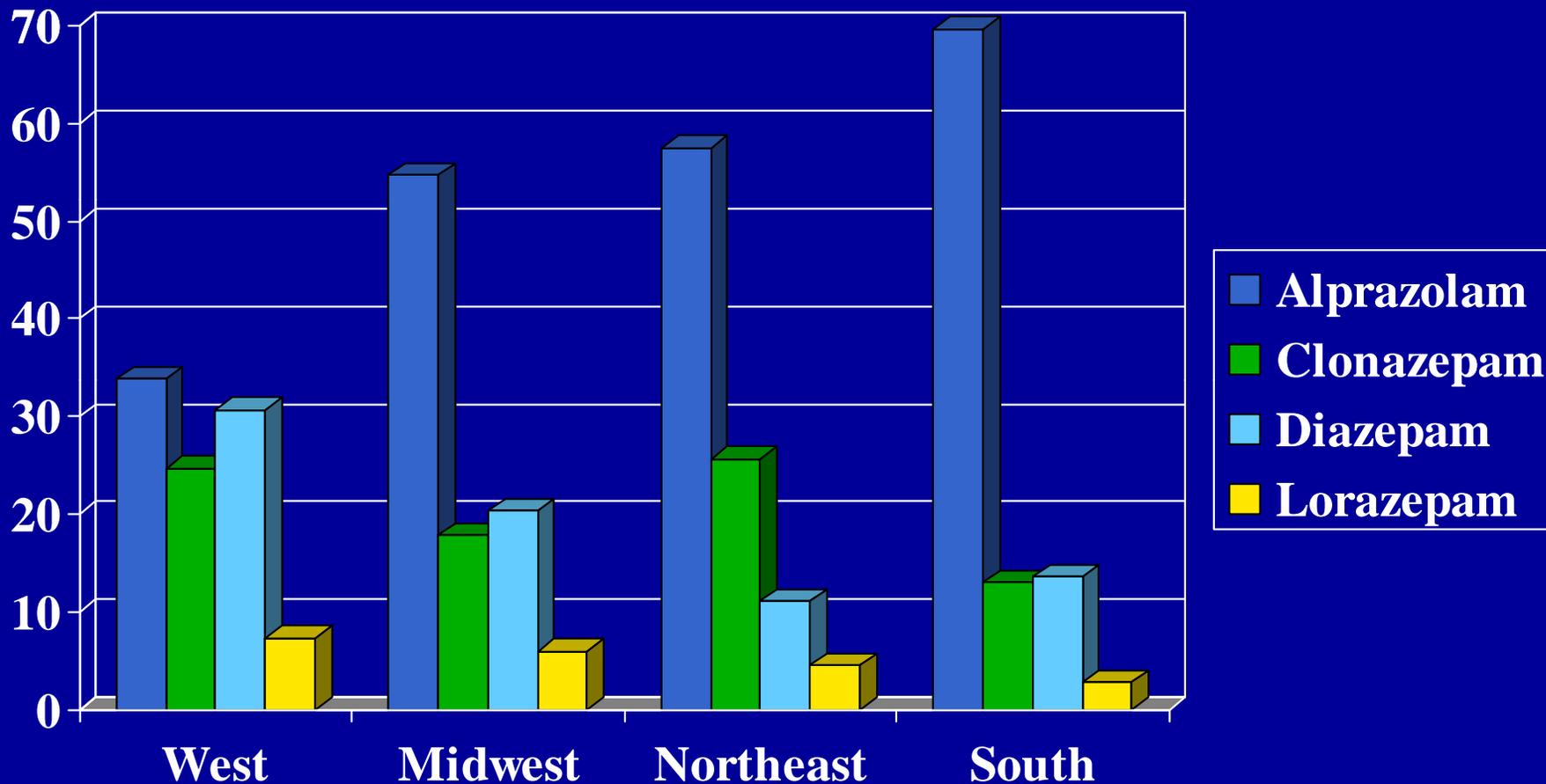
# Prescription Requirements

- DEA does not define nor regulate medical practice standards.
- There are no federal limits on the quantity of controlled substances that may be prescribed.
- Corresponding responsibility for proper prescribing & dispensing rests with the pharmacist who fills the prescription.

# NFLIS Narcotic Analgesics 2006 Regional Distribution

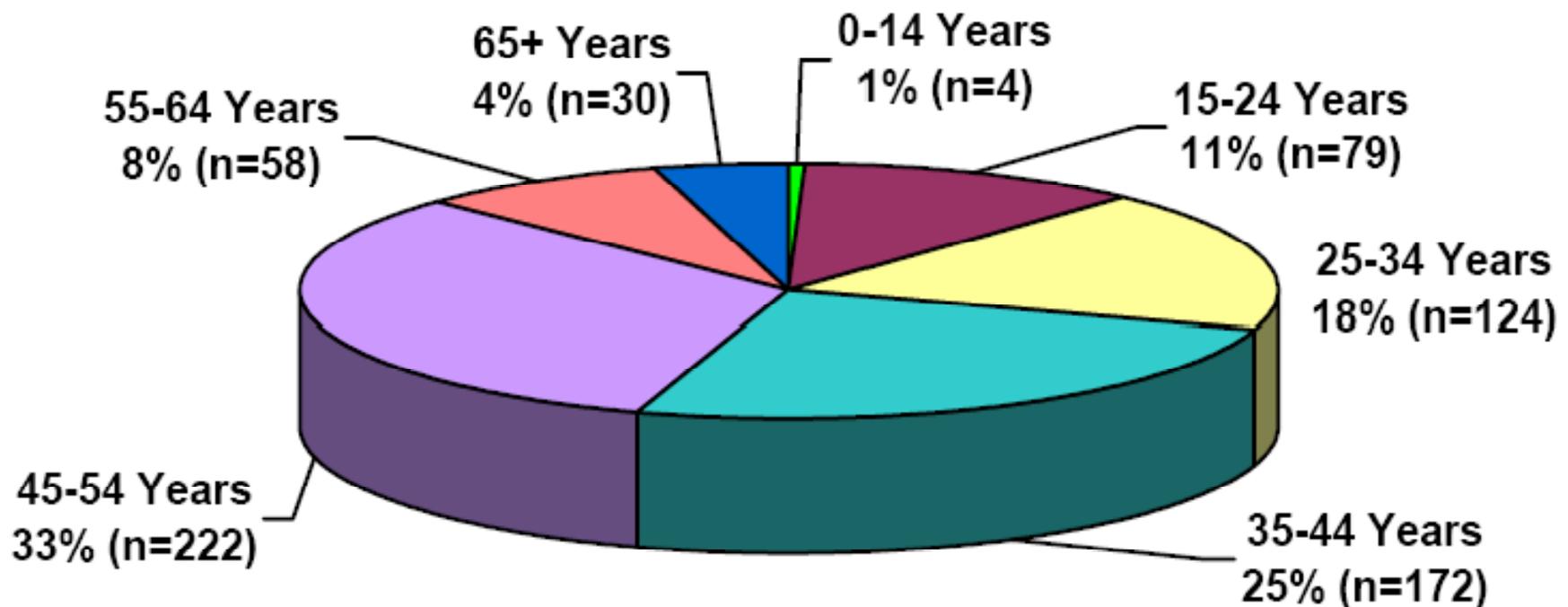


# NFLIS Benzodiazepines 2006 Regional Distribution



# 2007 Accidental AZ Poisonings

**Figure 12. Unintentional Poisoning Mortality by Age Group, Arizona 2007 (n=689)**



# 2007 Accidental AZ Poisonings

**Table 5. Poisons Commonly Listed on Death Certificates for Unintentional Poisoning Fatalities, Arizona 2007**

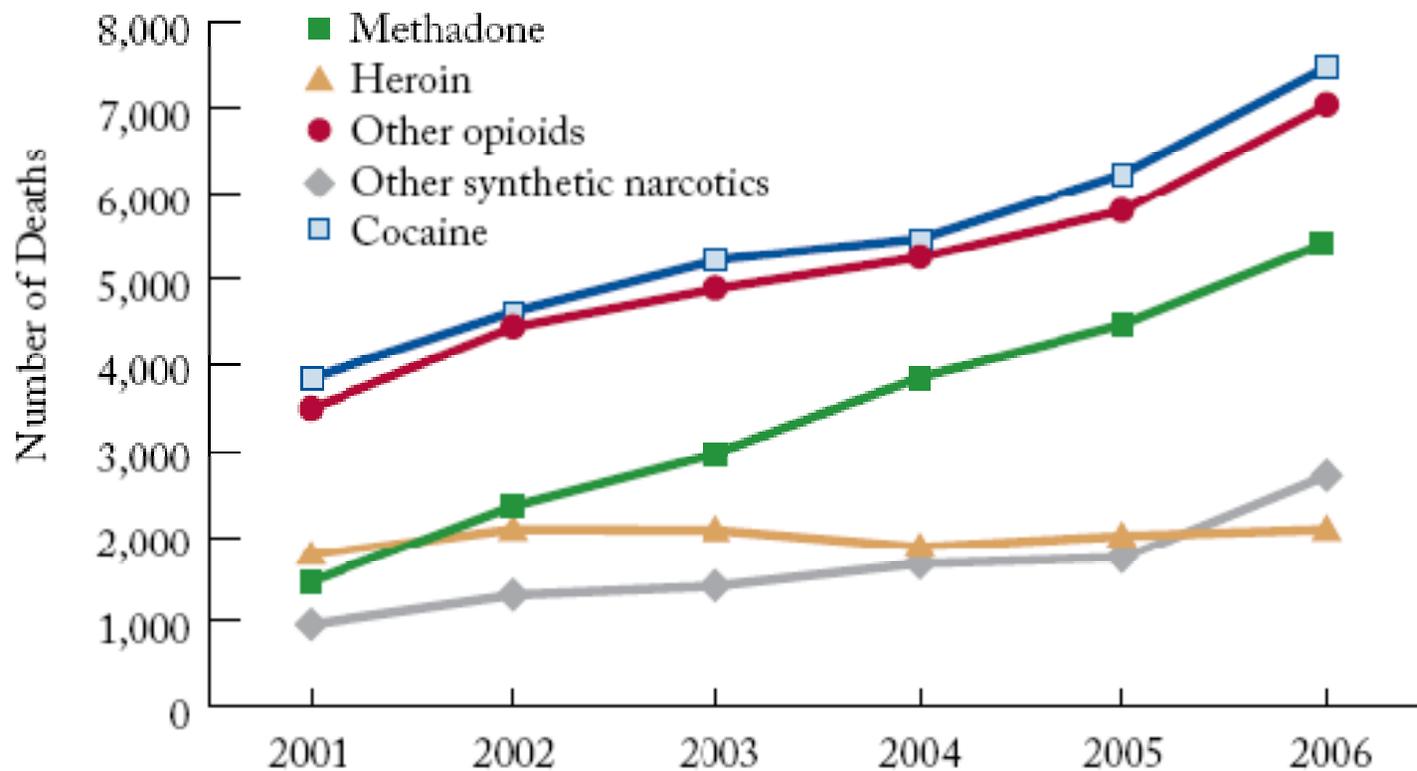
Poisons*	Number	Percent
Cocaine	118	17%
Methamphetamine	101	15%
Alcohol**	91	13%
Oxycodone/Hydrocodone	79	11%
Methadone	67	10%
Heroin	54	8%
Benzodiazepines	31	4%
Fentanyl	14	2%
Diphenhydramine	8	1%
Carbon Monoxide	6	1%

\*More than one poison may have been identified for each death

\*\*While deaths attributed solely to alcohol have been excluded from this report, deaths involving alcohol in combination with other agents are counted.

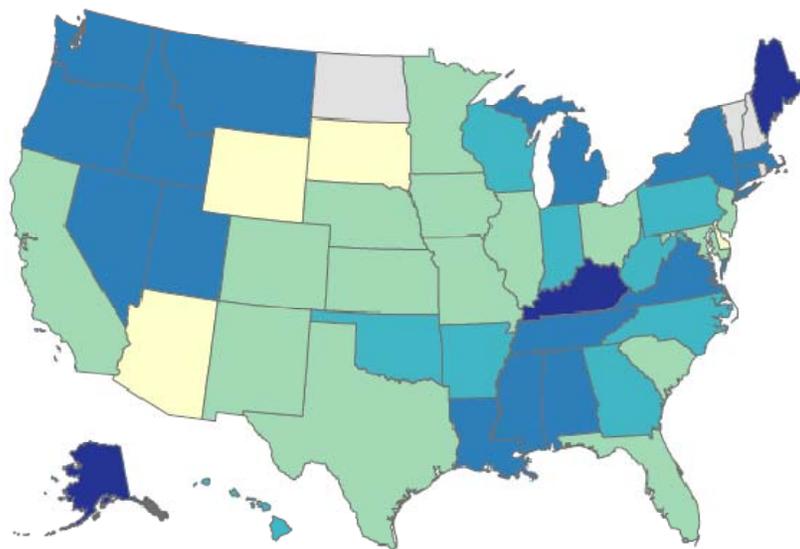
# US Opioid Poisoning Deaths

**Figure 4.** Number of U.S. poisoning deaths in which specific narcotics and psychodysleptics are mentioned, 2001–2006.



# NFLIS Methadone Data

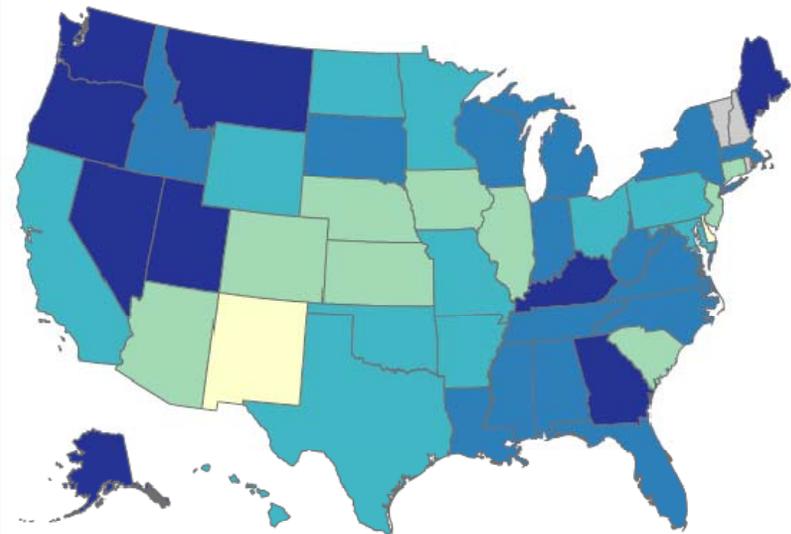
**Figure 8.** Percent of analyzed drug items identified as methadone, by state, 2005.



Percent Per State

- 1.00-3.66
- 0.50-0.99
- 0.30-0.49
- 0.10-0.29
- 0.00-0.09
- No Data

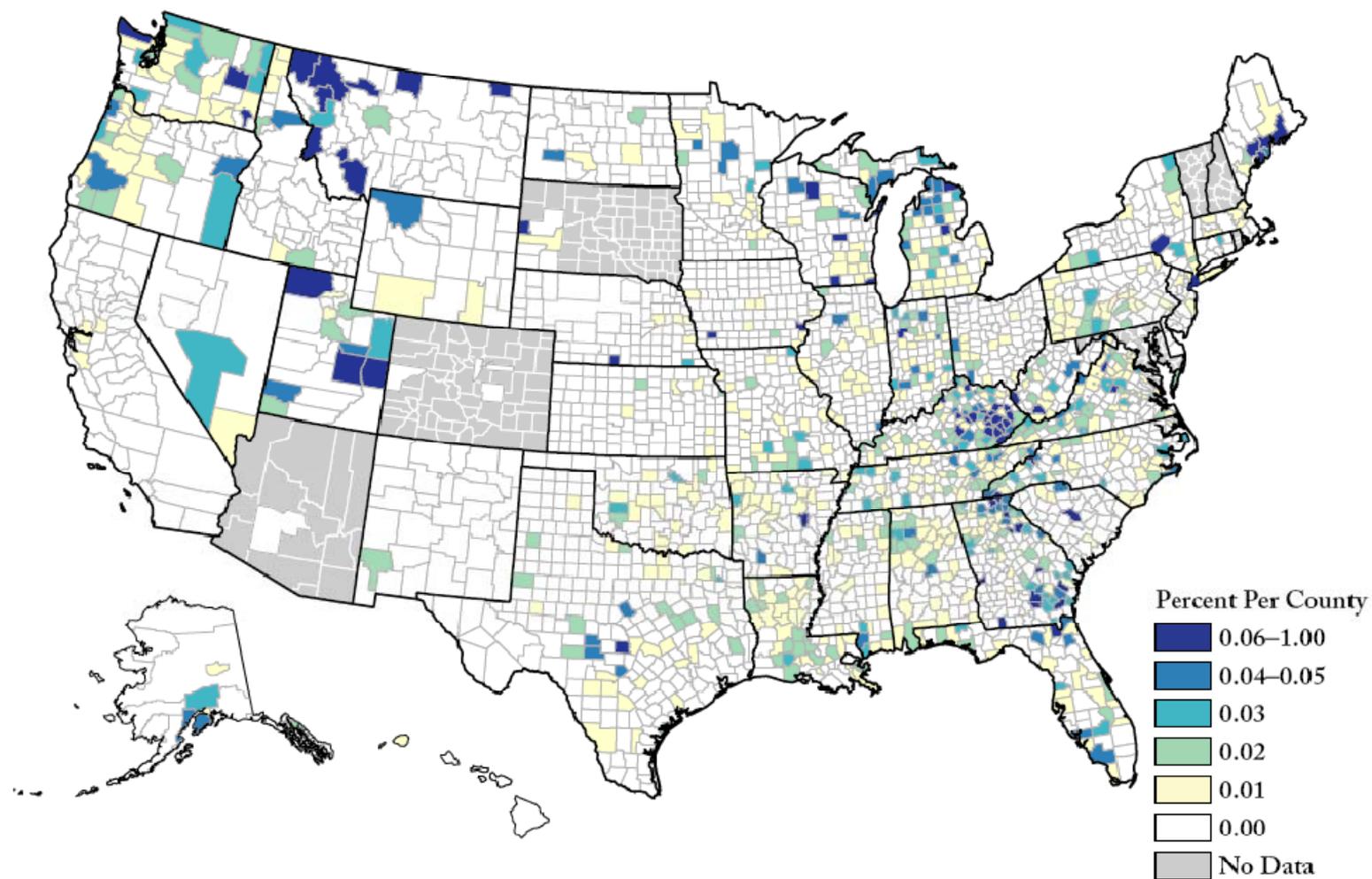
**Figure 9.** Percent of analyzed drug items identified as methadone, by state, 2008.



Percent Per State

- 1.00-3.66
- 0.50-0.99
- 0.30-0.49
- 0.10-0.29
- 0.00-0.09
- No Data

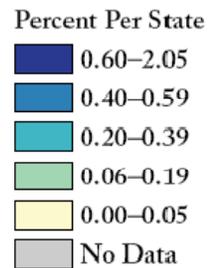
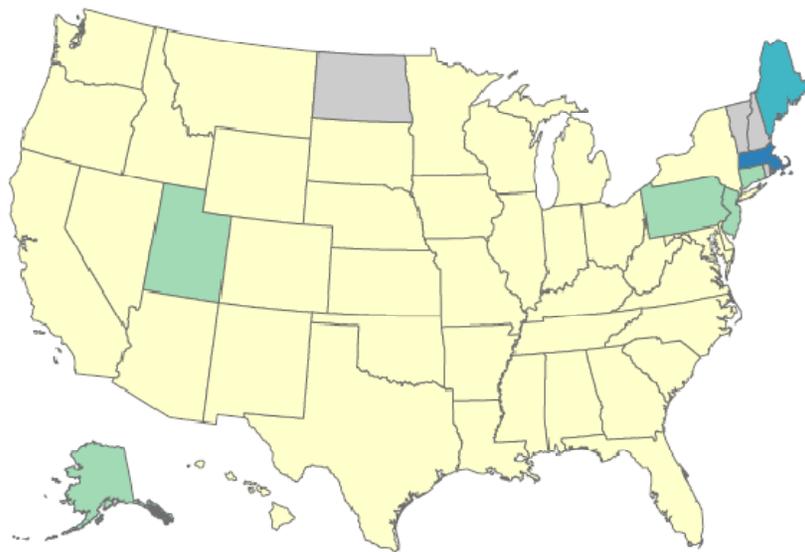
## Percent of analyzed drug items identified as methadone, by county, 2008.



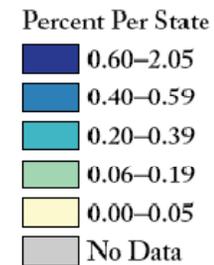
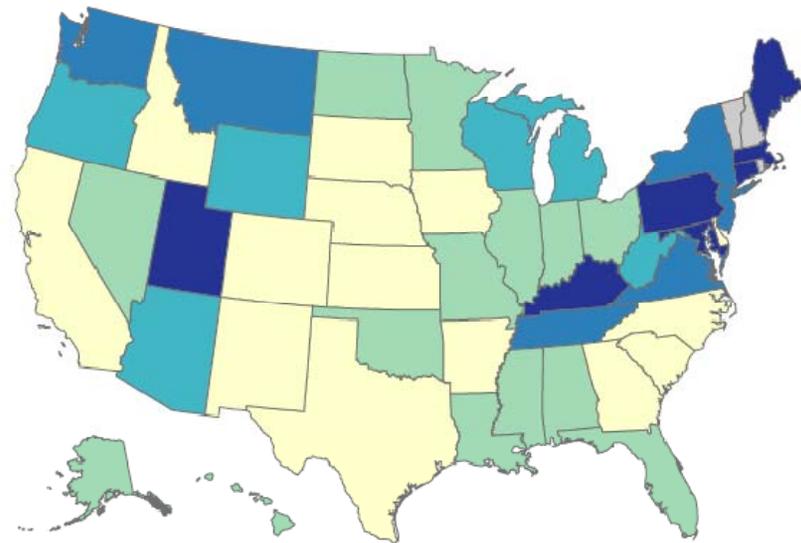
*Note: NFLIS data for NYPD Crime Laboratory are not specific to individual counties within New York City.*

# NFLIS Buprenorphine Data

**Figure 11.** Percent of analyzed drug items identified as buprenorphine, by state, 2005.



**Figure 12.** Percent of analyzed drug items identified as buprenorphine, by state, 2008.

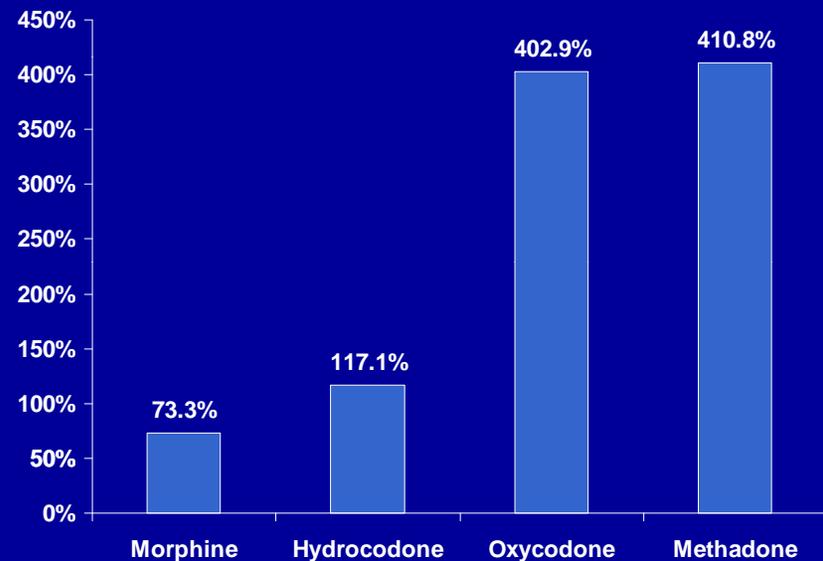


# NASPER

## National All Schedules Prescription Electronic Reporting Act

- Signed into law by President Bush August 2005
- Point of care reference to all controlled substances prescribed to a given patient
- AZ CSPMP is to monitor patients and providers
- Treatment tool vs. Law enforcement tool?

### Sale of Opioids 1997-2002



Source: 2002 National Survey on Drug Use and Health (NSDUH).

Results from the 2002 National Survey on Drug Use and Health: National Findings. Department of Health and Human Services

# Controlled Substances Prescription Monitoring Program

- Arizona's Forty-eighth Legislature passed H.B. 2136 establishing a Controlled Substances Prescription Monitoring Program (CSPMP). The bill was signed by the Governor on July 2, 2007 and become effective on September 19, 2007. The program went live October 31, 2008.
- The new statutes, A.R.S. Title 36, Chapter 28 are available on the Board's website [www.azpharmacy.gov](http://www.azpharmacy.gov) under the "CS-Rx Monitoring Program" link. Our proposed rules are also available under the same link.

# Controlled Substances Prescription Monitoring Program

- A.R.S. § 36-2602 requires the ASBP to establish a controlled substances prescription monitoring program that:
  - Includes a computerized central database tracking system track the prescribing, dispensing, and consumption of Schedule II, III, and IV controlled substances in Arizona,
  - Assists law enforcement in identifying illegal activity related to the prescribing, dispensing, and consumption of Schedule II, III, and IV controlled substances,
  - Provides information to patients, medical practitioners, and pharmacists to help avoid the inappropriate use of Schedule II, III, and IV controlled substances, and
  - Is designed to minimize inconvenience to patients, prescribing medical practitioners and pharmacies while effectuating the collection and storage of information.

# Controlled Substances Prescription Monitoring Program

## Purpose of the Controlled Substances Prescription Monitoring Program:

- Improve the State's ability to identify controlled substance abusers or misusers and refer them for treatment
- Identify and stop diversion of prescription controlled substance drugs

## Primary function of the Arizona State Board of Pharmacy:

- Provide a central repository of all prescriptions dispensed for Schedule II, III, and IV controlled substances in Arizona

# How to screen for addiction

- Perform an AUDIT and CAGE.
- Ask family or significant other the f-CAGE.
- Perform one or more toxicology tests.
- Ask prior physicians about use of controlled medications (f-CAGE).
- If history of current or prior addiction, has the patient ever abused opioids?
- Query the AZ CSPMP Pharmacy Board, other IHS sites, PMP, NASPER

## The CAGE and f-CAGE

- **CAGE** =
  - **C**ut down on use?
  - **C**omments by friends and family about use that have **A**nnoyed you?
  - **E**mbarrassed, bashful or **G**uilty regarding behaviors when using?
  - **E**ye-openers to get started in the mornings?
- **f-CAGE** = Ask the patient's significant other the CAGE questions about the patient's use of alcohol, drugs or medications.

# Medical issues in opioid prescribing

- Potential benefits
  - Analgesia
  - Function
  - Quality of life
  - Lower costs
- Potential risks
  - Toxicity
  - Functional impairment
  - Physical dependence
  - Addiction
  - Hyperalgesia
  - Overdose

# Review of opioid efficacy (cont.)

- **In long-term studies:**
  - Usually observational – non randomized / poorly controlled
  - Treatment durations  $\leq 6$  years.
  - Patients usually attain satisfactory analgesia with moderate non-escalating doses ( $\leq 195$  mg morphine/d), often accompanied by an improvement in function, with minimal risk of addiction.
- The question of whether benefits can be maintained over years rather than months remains unanswered.
  - Ballantyne JC: Southern Med J 2006; 99(11):1245-1255

## Conclusions as to opioid efficacy

- Opioids are an essential treatment for some patients with CNMP.
  - They are rarely sufficient
  - They almost never provide total lasting relief
  - They ultimately fail for many
  - They pose some hazards to patients and society
- It is not possible to accurately predict who will be helped – but those with contraindications are at high risk

## Conclusions as to opioid efficacy

- A trial (3-6 mo±) generally is safe  
(IF contraindications are ruled out)
- People who expect to take opioids and lie around the house while they get well, won't.
  - Push functional restoration, exercises
  - Lifestyle changes and weight loss
  - Make increased drugs contingent on increased activity

## **Desirable patient characteristics:**

- No substance abuse disorder
- Reliable
- History of good medical compliance
- Willing to do their part to recover
- Recognizes that opioids are only a partial solution
- Good support (no substance abusers in the home)

## If prescribing opioids:

- Establish treatment goals, such as:
  - Functional improvement
    - Work
    - Play
    - Socialization
  - Affective normalization
  - Pain *reduction* (versus pain *relief*)

# Formulate a treatment plan:

- Goals
  - Pain
  - Function
    - What should the person do anatomically?
  - Quality of life
  - Affect?
- Opioids or not
- Other treatment components

## Practical suggestions:

- Have realistic expectations
- Treat the entire patient, holistic care
- Select appropriate patients
  - Screen for contraindications!
  - If pain does not result primarily from activity in the nociceptive system, it will not be eliminated by
    - Opioids / Spinal fusion / Epidural steroid injections / Antidepressants / NSAIDs

## Pain Treatment in Patients with an Addiction

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1. Explain potential for relapse
2. Explain the rationale for or against the medication
3. Educate the patient and the support system
4. Encourage family/support system involvement
5. Frequent follow-ups
6. Consultations and multidisciplinary approach

## Pain Treatment in Patients with an Addiction

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1. Address addiction
2. Use non-medication approaches, if effective
3. Use non-opioid analgesics, if effective
  - Provide effective opioid doses, if needed
  - Treat associated symptoms, if indicated
  - Address addiction

# Aberrant Drug Related Behaviors - Predictive of an Addiction

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1. Selling prescription drugs
2. Prescription forgery
3. Stealing or “borrowing” drugs
4. Obtaining prescription drugs from non-medical sources and/or injecting drugs
5. Concurrent abuse of alcohol or illicit drugs
6. Multiple dose escalations or other non-compliance with therapy

# Monitor for outcomes

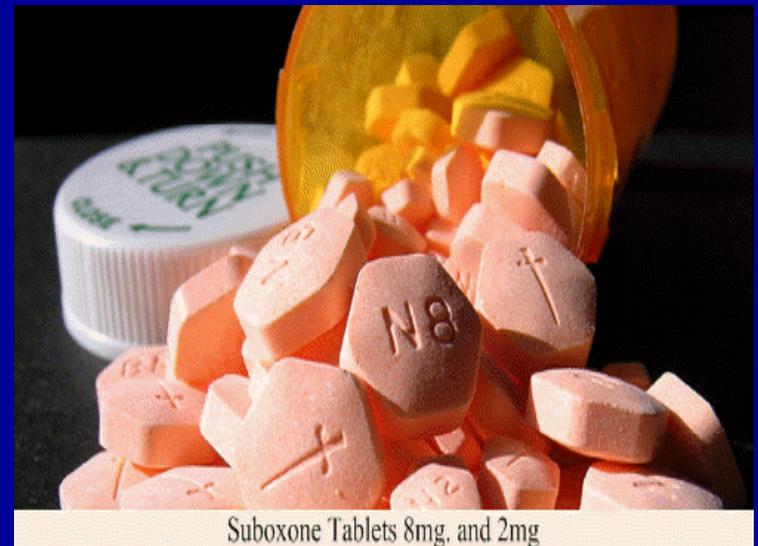
- Analgesia – pain level – 0 -10
- Affect – Beck Depression Inventory, Zung, Ham-D
- Activity level – Pain Disability Index, Oswestry
- Adverse effects – cognition, alertness
- Aberrant behaviors – multisourcing, lost drugs

**If not effective,**

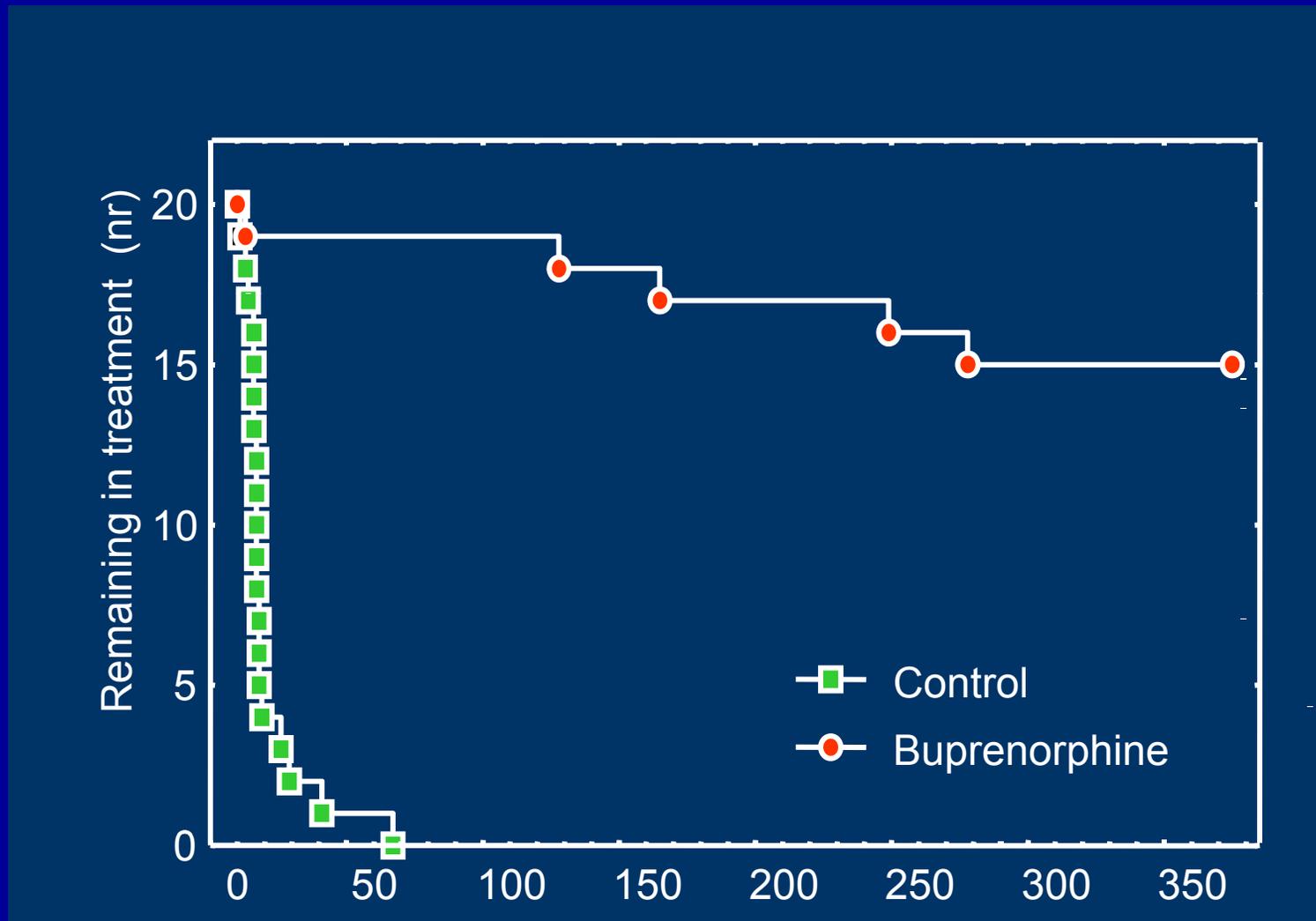


# Drug Abuse Treatment Act (DATA) 2000 Schedule III substances Sublingual Buprenorphine

- **ADDICTION:**
  - Obtain DEA waiver; MD/DO
  - 30 patients only for addiction
    - 2007: 30/100 pt limit
  - Once or BID daily dosing
- **Negatives:**
  - Expensive \$3.15 per tab (FSS)
  - DEA waiver required
  - Must be in a program

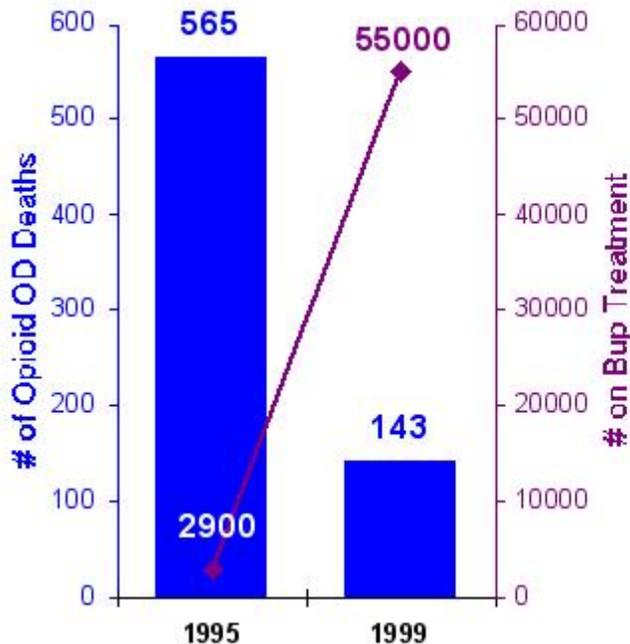


# Buprenorphine Maintenance/Withdrawal: Retention



Treatment duration (days) (Kakko et al., 2003)

## Opioid Overdose Deaths Decline 79% After Introduction of Buprenorphine in France



Ling et al. J Subst Abuse Treat 2002;23:87-92.  
Auriacombe et al. JAMA 2001;285:45.

- French primary care MDs permitted to prescribe without special education or licensing since 1995
- Extensive certification requirements and practice limits continue in force in the U.S.

# RADARS Peds Data 2003-6

	BUP N=176	Hydrocodone N=6003	Fentanyl N=123	Oxycodone N=2036
Age (SD)	2.1 (0.9)	2.3 (1.2)	2.0 (1.2)	2.1 (1.1)
Male (%)	99 (56.3)	3232 (53.9)	64 (52.5)	1081 (53.5)
Site Home %	169 (96)	5581 (93)	111 (90.2)	1821 (89.4)
Ingest %	174 (99.4)	5993 (99.8)	77 (62.6)	2020 (99.1) <sup>53</sup>

# IHS Chronic Pain Treatment

- Controlled Substance Work Group
- Chronic Pain Treatment Work Group
  - Review and update your Chronic Pain Treatment Policy and Procedure
  - Support your Chronic Pain Treatment Team
  - Establish and Support the Chronic Pain Review Team
  - Educate the patient, family, community and providers in the areas of Chronic Pain Evaluation and Treatment

## Pain Management Agreement

The purpose of this agreement is to prevent misunderstanding about the medicines you will be taking for pain control. This gives the rules you agree to follow as a patient in the pain clinic. By signing this paper, you are saying that you understand and agree to follow the rules while you are a patient of the clinic.

I understand that no patient is entitled to take pain medicines without following the treatment plan that will help establish trust and the best results as an important part of the use of these medicines. If there is evidence that there is abuse or misuse of the medicines, or I am not participating in an integrated program of diet, weight control, good health habits, physical/occupational therapy, behavioral health, and/or specialty referrals, the medication may be stopped.

I agree to keep my pain clinic appointment and to be on time. If I can't keep an appointment, I will call the clinic at 602-263-1501 at least 24 hours before my appointment to reschedule. I also know that I am expected to come 15 minutes before my appointment time to complete health screening that is done at each visit.

I will talk honestly about my pain with my medical provider, nurse, therapist, or pharmacist. I agree to be evaluated by behavioral health or any other provider who is part of the pain team.

I will tell my provider about any new medicines I am on, or any change in my medical condition.

I will tell my provider about any side effect I have from the pain medicines I am taking.

I will not try to get pain medicines, sedatives, hypnotics, stimulants, or anti-anxiety medications from any other provider not a part of the treatment team.

I will not abuse alcohol. If my provider advises, I will not drink any alcohol.

I will not try to get medicines by buying them on the street, or taking them from other sources.

I will not use any illegal drugs such as marijuana, cocaine, heroin, or methamphetamine.

I will not share, sell, or trade my pain medicine with anyone. I agree to protect my pain medicines from loss and theft; I understand they will not be replaced. I will keep my medicine safe at home and take with me only those pills I will need while I am gone from my home, and not the entire bottle.

I agree to take the medicine as prescribed. If I take it faster than prescribed, it may kill me, or I will be without medicine for a period of time.

I understand that my medicines will be filled or renewed only during regular clinic and pharmacy hours. My prescriptions will not be renewed until the date they are due. My medication regimen will only be changed during clinic appointments or if the provider needs to adjust them.

I agree to give a urine or blood sample on the day it is requested in order to tell if I am following my program of pain control medicine.

I agree to bring in all my medication bottles on the day requested in order for my pills to be counted and to tell if I am following my treatment plan.

I agree to keep myself and others safe while on this regimen. I will not drive or operate machinery if I feel drowsy or impaired in any way, and will reduce my medicine and notify my provider.

I understand that if I break this agreement by not following any of the above rules, that I will no longer be given narcotics in this clinic, and my treatment plan will be changed.

I understand the state controlled substance database registry will be checked periodically to verify my use of controlled substances.

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Patient Name (Print)

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Medical Record Number

- **Indian Health Service**

- **CONTROLLED SUBSTANCES FOR TREATMENT OF INTRACTABLE PAIN  
NOTICE AND PATIENT INFORMED CONSENT**

This will confirm that you have been diagnosed with \_\_\_\_\_,  
a condition causing you intractable pain.

I have recommended treating your condition with the following controlled substance:

\_\_\_\_\_.

There may be other alternative methods of treatment available to you.

The material risks associated with \_\_\_\_\_ include but are not limited to: sedation that may interfere with your ability to drive and operate machinery safely; interference with breathing, urinary and bowel function (constipation) serious enough to warrant urgent medical treatment; physical dependence; addiction; nausea, vomiting, itching, mood changes, muscle twitching, and allergic reactions; and injury to the fetus or unborn child in a pregnant woman.

Physical dependence is an inevitable consequence of chronic opioid use. This involves the body becoming used to having the medication present. If someone who is physically dependent on a medication discontinues the use of that medication suddenly, they may experience an uncomfortable withdrawal syndrome.

Addiction is not the same as physical dependence, although the two may overlap. Addiction involves the compulsive use of a substance, against a provider's instructions, for unintended purposes. It may also involve unauthorized increases in medication, or diverting medication.

This will also confirm that I asked if you wanted a more detailed explanation of the proposed treatment, alternatives and material risks and you (check one):

- Were satisfied with the above description and did not want any more information.
- Requested and received, in substantial detail, further explanation of the treatment, alternative methods of treatment and information about the material risks.

If this accurately represents our discussion and if you are satisfied with the explanation given, you must sign this document indicating your informed consent to use this controlled substance before commencement of treatment.

\_\_\_\_\_  
(PATIENT'S SIGNATURE)

\_\_\_\_\_  
(DATE)

Explained by me and signed in my presence: \_\_\_\_\_  
(PROVIDER'S SIGNATURE)

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