

# Treating co-occurring pain and substance use disorders

Mark Ilgen, PhD

Ann Arbor VA, HSR&D Center of Excellence;  
Serious Mental Illness Treatment and Resource Center (SMITREC);  
Department of Psychiatry, University of Michigan

# Disclosure Statement

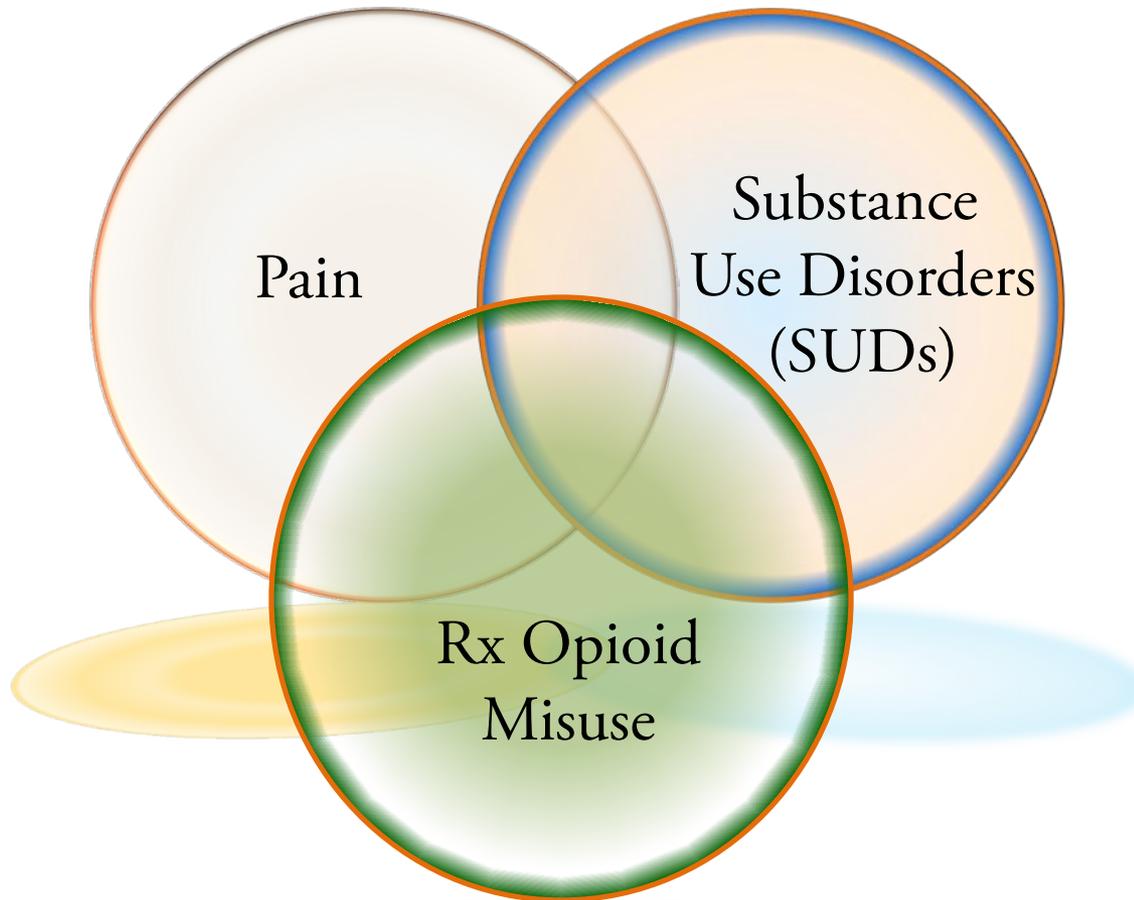
- No conflicts of interest to disclose
- Research funding from:
  - VA Health Services Research & Development
  - National Institute on Drug Abuse

# Overview

- Review the literature on:
  - The overlap between pain and Substance Use Disorders (SUDs)
  - The challenges in treating pain in those with SUDs
  - The use of prescription opioids in those with and without SUDs
- Describe new initiatives in the VHA to address concerns about the increasing use of prescription opioids:
  - Opioid Safety Initiative
- Present early results of a randomized trial of Cognitive Behavioral Therapy (CBT) to address chronic pain in Veterans with SUDs

# Attendee Poll Question

# What's meant by 'pain and addiction'?



# Chronic pain

- “An unpleasant sensory and emotional experience associated with actual or potential tissue damage, or described in terms of such damage.” [International Association for the Study of Pain (IASP)].
- In national surveys, 25% of adults in the US report some form of persistent and/or significant pain (Ilgen et al., 2008; Krueger and Stone 2008; National Center for Health Statistics 2006).
- Chronic pain is associated with poorer quality of life and decreased productivity (Becker et al., 1997; Stewart, 2003).
- Chronic pain is associated with increased risk of suicide (Ilgen et al., 2010; Ilgen et al., 2008; Ilgen et al., 2013).
- Chronic pain is linked to a higher prevalence of numerous psychiatric conditions (Currie & Wang, 2004; Dersh et al., 2002; Means-Christensen et al., 2008; Von Korff et al., 2005).

# Overlap between chronic pain and SUDs

- In community samples pain is associated with increased risk of SUDs – mainly alcohol use disorders (Von Korff et al., 2005).
- SUDs in those with pain (Morasco et al., 2011):
  - In primary care, 10% of those with chronic non-cancer pain have a current SUD
  - In specialty pain care, 10-30% of patients have a current SUD
- Pain in those with SUDs in VHA patients (N = 5,195,551):
  - Among those with an SUD:
    - 44.5% with arthritis (OR = 1.55; 1.54 - 1.56)
    - 32.0% with back pain (OR = 2.00; 1.99 - 2.02)
    - 5.6% with neuropathic pain (OR = 1.39; 1.37 - 1.41)
    - 2.1% with migraine (OR = 1.43; 1.40 - 1.47)
- Rates of pain in SUD treatment settings:
  - ~50% or more of patients in addictions treatment report pain:
    - Rates are somewhat higher in programs that treat opioid dependence (Trafton et al., 2004; Potter et al., 2008).
    - Those with pain typically report more severe patterns of substance misuse, psychopathology and functional limitations.

# Clinical implications of co-occurring pain and SUDs

- The presence of an SUD is associated with poorer functional outcomes following pain treatment
  - Those with an SUD were 70% less likely to report functional improvements during standard pain treatment than those without an SUD (Morasco et al., 2011).
- Chronic pain is associated with a poorer course of post-treatment outcomes following SUD treatment (Larson et al. 2007).
  - In a large addictions treatment program, patients with persistent pain were more likely to drop out of treatment and were less likely to be abstinent at 1-year (Caldeiro et al. 2008).
- Need to improve methods for identifying and treating co-occurring pain and SUDs.

# Why do pain and SUDs co-occur?

- Individuals with pain are ‘self-medicating’
  - Appealing to many patients
  - Some support from self-report data (Riley & King, 2009).
  - Poorer outcomes in those who use alcohol to manage pain (Brennan, Schutte & Moos, 2005).
- Third variables explain this association
- Substance use → injury → pain (Ilgen et al., 2010).

# Why do pain and SUDs co-occur?

## – Special considerations for Rx Opioids

- Physical dependence on prescription opioids  $\neq$  SUD
- SUD diagnostic criteria still apply but with reconsideration of tolerance and withdrawal

# DSM-5 Criteria for Substance Use Disorder

## Physiologic Criteria:

Tolerance, as defined by either of the following:

- a) a need for markedly increased amounts of the substance to achieve intoxication or the desired effect, or
- b) markedly diminished effect with continued use of the same amount of the substance

Withdrawal, as defined by either of the following:

- a) the characteristic withdrawal syndrome for the substance, or
- b) the same (or closely related) substance is taken to relieve or avoid withdrawal symptoms

# DSM-5 Criteria for Substance Use Disorder

## Note:

*Tolerance and Withdrawal are not counted for those taking medications under medical supervision such as analgesics, antidepressants, anti-anxiety medications or beta-blockers.*

# DSM-IV: Criteria for SUDs

- **Substance abuse:** significant impairment or distress as manifested by 1 or more of the following, occurring within a 12-month period:
  - Failure to fulfill major role obligations at work, school, or home
  - Use in situations in which it is physically hazardous
  - Recurrent substance-related legal problems
  - Continued use despite social or interpersonal problems
- **Substance dependence:** significant impairment or distress, as manifested by 3 or more of the following, occurring any time in the same 12-month period:
  - Tolerance: (a) need for increased amounts to achieve intoxication or the desired effect or (b) diminished effect with continued use of the same amount of the substance
  - Withdrawal: (a) The characteristic withdrawal syndrome for the substance or (b) substance is taken to relieve or avoid withdrawal symptoms
  - The substance is often taken in larger amounts or over a longer period than intended
  - There is a persistent desire or unsuccessful efforts to cut down use
  - Excess time is spent obtaining, using or recovering from use
  - Decrease of important social, occupational, or recreational activities
  - Continued use despite knowledge of problems due to use
- **DSM-V** adds craving and combines the categories

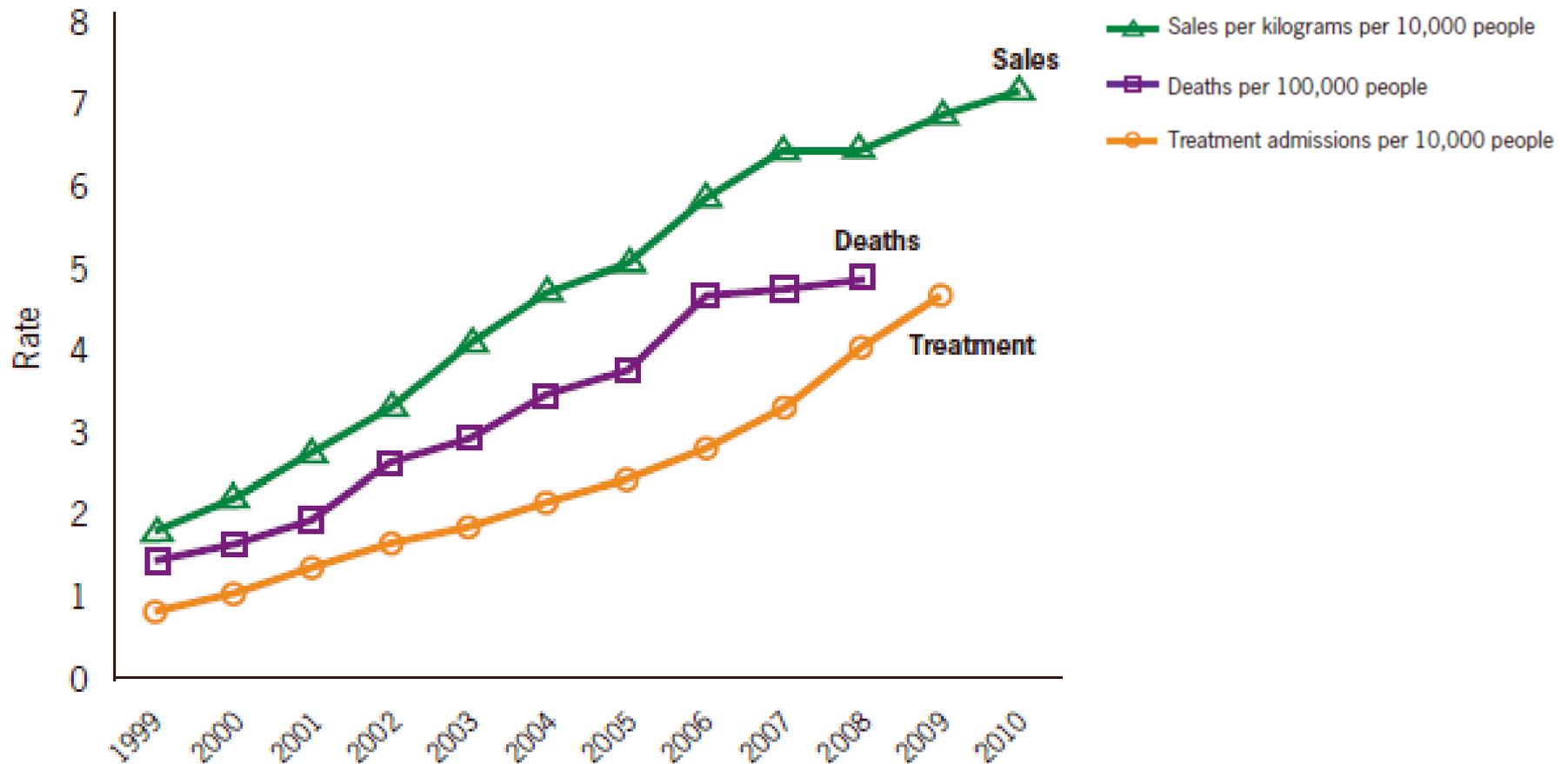
# Why do pain and SUDs co-occur? – Rx opioids

- Physical dependence on prescription opioids ≠ SUD
- SUD diagnostic criteria still apply but with reconsideration of tolerance and withdrawal
- **Pseudoaddiction** (Weissman & Haddox 1989).
- **Opioid induced hyperalgesia** (Angst & Clark 2006).
- The terminology surrounding opioid misuse is confusing

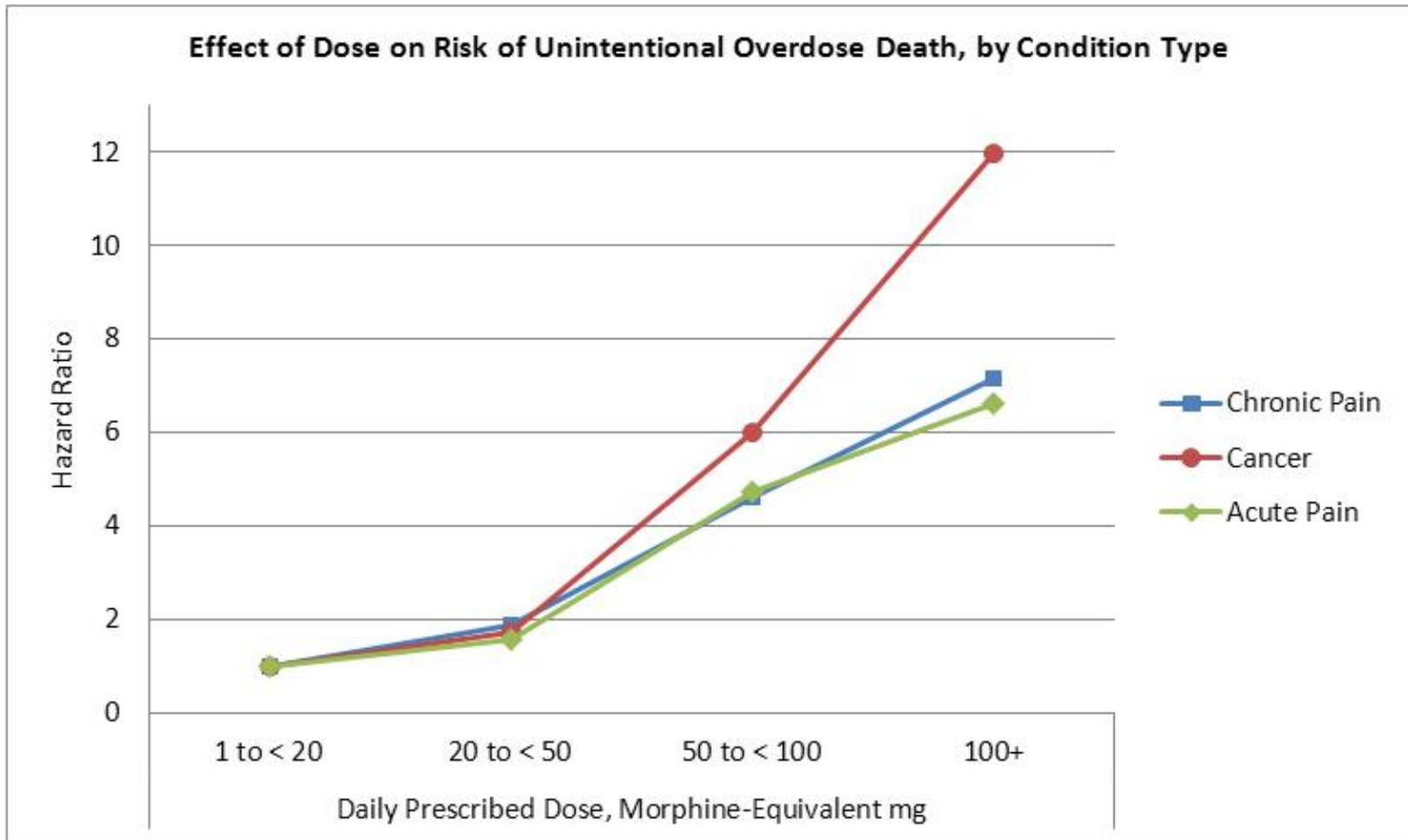
# Opioids for the treatment of chronic pain

- Opioids are now the most common form of treatment for chronic non-cancer pain (Turk & Okifuji, 2002).
- In all patients, there are concerns about:
  - Lack of data on the efficacy of long-term opioid therapy for non-cancer pain
  - Overdose
  - Misuse and diversion

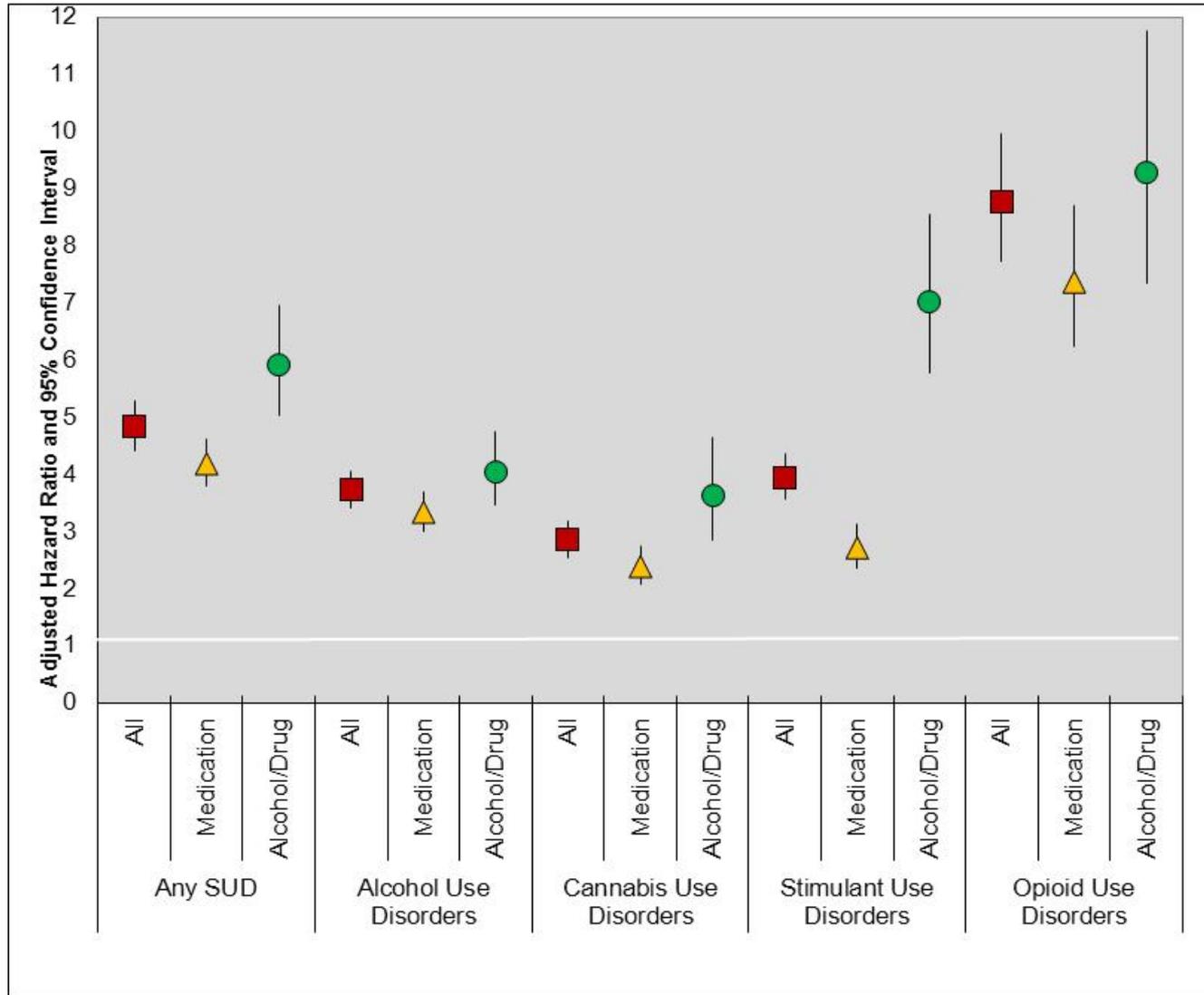
# Rates of prescription painkiller sales, deaths and SUD treatment admissions (1999-2010)



# Is overdose risk related to dose of medication?



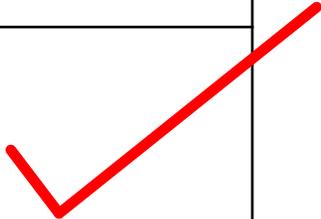
# Risk of Unintentional Overdose for SUDs



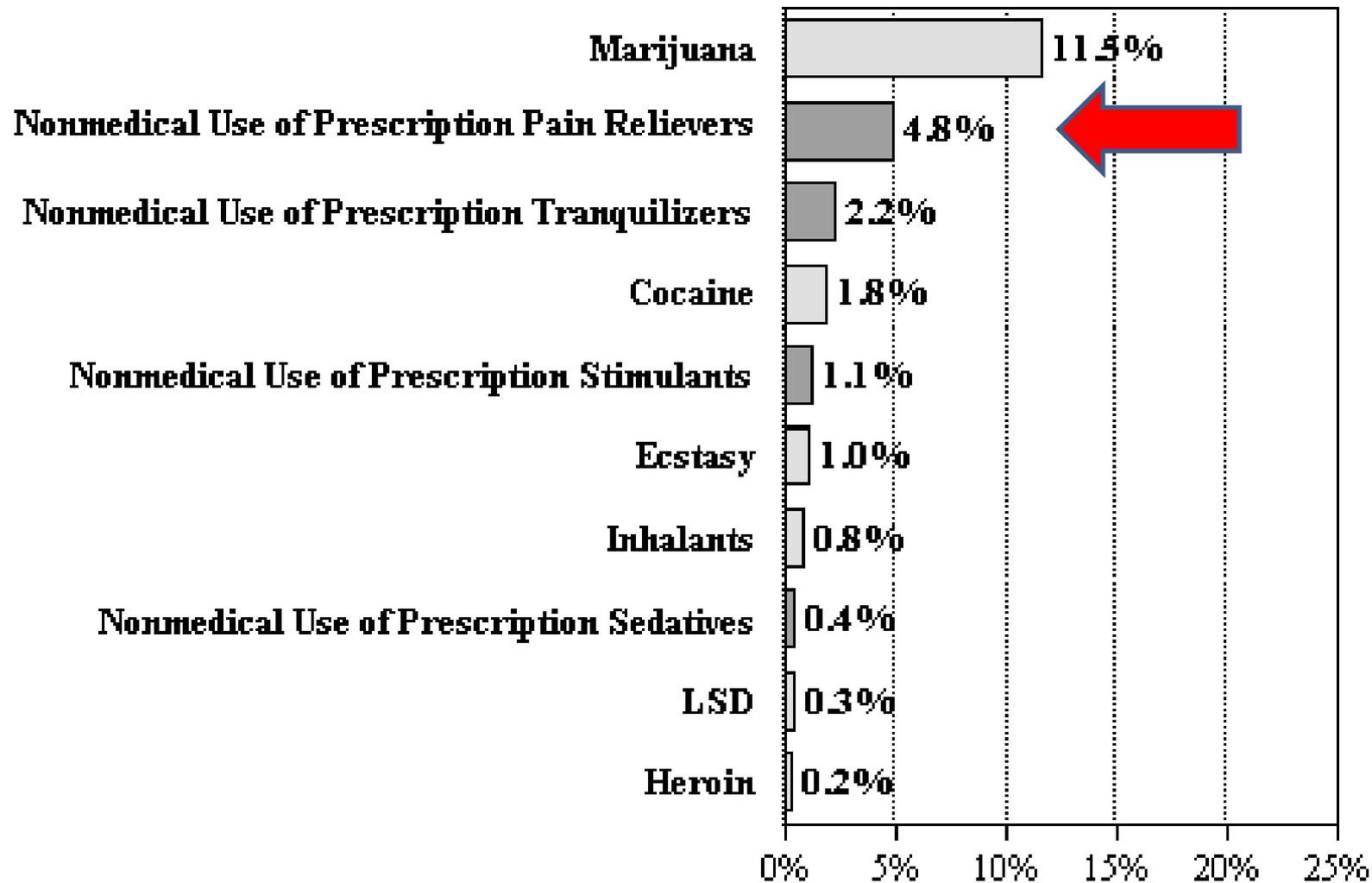
# Defining “opioid misuse”

- Sometimes called “opioid abuse”, “extra-medical use” or “non-medical use” of opioids
- Other aberrant drug-related behaviors –
  - lost meds, early refill requests, borrowing/sharing meds, getting meds from other providers (Dr. shopping?)
- NSDUH - “Have you ever, even once, used NAME OF DRUG that was not prescribed for you or that you took only for the experience or feeling it caused?”

# Pain medication misuse

		Is the medication being used for pain relief? (vs. other effects)	
		No	Yes
Is the medication taken as prescribed? (to you!)	No		
	Yes		

# Past Year Substance Use Among U.S. Residents (Age 12 or older); 2010 NSDUH



# Ways to assess for pain medication misuse

- Past 30 day pain medication misuse
  - Current Opioid Medication Misuse (COMM; Butler et al., 2007)
    - “How often have you needed to take pain medications belonging to someone else?”
    - “How often have you had to go to someone other than your prescribing physician to get sufficient pain relief from your medications?”
    - How often have you taken your medications differently from how they are prescribed?
    - “How often have you had to take more of your medication than prescribed?”
    - “How often have you borrowed pain medication from someone else?”
    - “How often have you used your pain medication for symptoms other than for pain?”

# ADD QUIZ!– Heidi, please format for me.

- How often do you ask the patients that you see who are currently receiving opioids from the VHA about the misuse opioids?
  - Never
  - Rarely
  - Sometimes
  - Often
  - Almost always
  - Always
  - Not Applicable, I do not see any patients in my current role

# Results of screening surveys of patients in different settings

- Adults treated in a low-income dental clinic at the University of Michigan (N = 384)
  - 38.6% reported pain medication misuse
- Adults treated (n = 477) in an Urban Emergency Department
  - 39.8% reported pain medication misuse
- Adults in residential SUD treatment (N = 351)
  - 68% endorsed pain medication misuse

# Opioid prescribing guidelines for those with SUDs

- VA opioid prescribing guidelines

[http://www.healthquality.va.gov/COT\\_312\\_Full-er.pdf](http://www.healthquality.va.gov/COT_312_Full-er.pdf)

- Those with a current SUD should
  - Receive concurrent SUD treatment
  - Frequent monitoring

# Opioid treatment in the VHA

- Poor overall adherence to clinical guidelines
  - VHA primary care (Krebs et al., 2010):
    - 14% assessed for drug/alcohol use
    - 11% used an opioid agreement
    - 15% used urine drug screens
  - SUD vs. non-SUD patients (Morasco, Duckart & Dobscha, 2011):
    - 30% had a mental health appointment (versus 17% of those without an SUD)
    - 35% had a SUD treatment appointment
    - 47% received a urine drug screen (versus 18% of those without an SUD)
- High dose prescribing ( $\geq 180$  mg/day morphine equivalent dose; Morasco et al., 2010):
  - 2.4% of all chronic pain patients; 8.2% of those w/ an opioid
  - More likely to have 4+ pain conditions, MH and SUDs and prescription of a benzodiazapine

# Improving care for VHA patients with chronic pain and SUDs

- Increase the awareness of and adherence to clinical practice guidelines:
  - Use of urine drug screens
  - Referrals to specialty SUD treatment
- Identification and re-evaluation of high risk patients based on:
  - Current opioid dose
  - Adverse event
  - Problematic pattern of service utilization

# Improving care for VHA patients with chronic pain and SUDs

- In all settings, improve measurement of:
  - Pain
  - functioning
  - opioid misuse
  - substance use disorders
- Increase awareness of effectiveness of behavioral treatments for pain and availability of these treatments
- Increase use of evidence-based SUD treatment
  - Pharmacotherapy for those with opioid dependence
    - Weiss et al., 2011 – maintenance (47%) far better than taper (8%)

# Uniform Mental Health Services in VA Medical Centers and Clinics

- (i) Pharmacotherapy with approved, appropriately- regulated opioid agonists (e.g., buprenorphine or methadone) must be available to all patients diagnosed with opioid dependence for whom it is indicated and for whom there are no medical contraindications... in addition to, and directly linked with, psychosocial treatment and support.
- If agonist treatment is contraindicated or not acceptable, antagonist medication (e.g., naltrexone) needs to be available and considered for use when needed.

# Uniform Mental Health Services in VA Medical Centers and Clinics

Opioid agonist treatment can be delivered in either or both of the following settings:

- Opioid Treatment Program (OTP).
  - formally-approved and regulated opioid substitution clinic using methadone or buprenorphine
  - 32 OTPs in house plus 22 by off-site contract.
- Office-based Buprenorphine Treatment.
  - only by a “waivered” physician
  - includes non-specialty settings (e.g., primary care)
  - 123 medical centers and 121 community clinics

# Change in opioid agonist pharmacotherapy FY09-11

Year	Opioid Diagnosis	Treated* (num)	Diagnosed (denom)	National
FY09	Dependence	10681	34736	30.1%
FY10	Dependence	12149	38484	31.6%
FY11	Dependence	12894	40753	31.6%
Change FY09-11		+20.7%	+17.3%	

Includes office based care (buprenorphine/naloxone)

Opioid Treatment Program (methadone or buprenorphine/naloxone),  
or fee basis care

# New VHA initiatives to improve care for those with pain (and SUDs)

- CBT for the management of chronic pain (evidence-based psychotherapy role-out)
- Shift from opioid pain care agreements ('opioid contracts') →
  - Signed Consent for Long-Term Opioid Therapy for Chronic Pain
  - Patient Information Guide called "Taking Opioids Responsibly"
- VHA providers can access state prescription drug monitoring programs
- Opioid Safety Initiative" (OSI) which will provide prescriber-level data to each VHA facility about:
  - the number of patients prescribed opioids
  - the average dose per day per drug
  - the number of patients prescribed both opioids and sedatives
  - The number of fentanyl patches dispensed

# Resources

- National Pain Management Website ([www.va.gov/painmanagement](http://www.va.gov/painmanagement) )
- VA/DoD Clinical Practice Guideline on Management of Opioid Therapy (OT) for Chronic Pain (2010)
  - [http://www.healthquality.va.gov/Chronic Opioid Therapy COT.asp](http://www.healthquality.va.gov/Chronic_Opioid_Therapy_COT.asp)
- Payne, et al. A Rose by Any Other Name: Pain contracts / Agreements. American Journal of Bioethics. 2010;10(11):5–12
- [Handbook 1004.01 Informed Consent for Clinical Treatments and Procedures](#)
  - Monthly “Spotlight on Pain Management” webinar (collaboration with HSR&D Center for Information Dissemination and Educational Resources)
  - 56 pain-related Office of Research and Development funded research projects in FY11
  - SUD Quality Enhancement Research Initiative (QUERI) SUD-Pain Work Group; see pages 54-57 in Strategic Plan available at [http://www.queri.research.va.gov/about/strategic\\_plans/sud.pdf](http://www.queri.research.va.gov/about/strategic_plans/sud.pdf)
  - CDC. Vital Signs: Overdoses of prescription opioid pain relievers—United States, 1999–2008. MMWR 2011;60:1487–92.

# Rationale for studying CBT for pain in those with both pain and SUDs

- Pain is common in SUD patients and treatment is complicated
- Patients in SUD treatment with pain tend to have worse outcomes SUD-related than those without pain
- Psychological interventions such as CBT have demonstrated efficacy for reducing pain and improving functioning in persons with a broad spectrum of pain-related conditions (McCracken and Turk 2002; Turk and Okifuji 2002).
- Prior studies have typically excluded those with substance use disorders.
- Only one existing study has explicitly examined the effects of CBT for pain in those with substance use disorders (Currie et al. 2003) and found significant reductions in pain, pain-related interference, medication misuse and more general measures of maladaptive coping from baseline to 12-month follow-up.
- If found to be effective in SUD treatment settings, this treatment could be easily modified for other settings

# Methods

- 130 patients recruited at the start of an episode of VA outpatient SUD treatment
  - No inclusion/exclusion criteria related to SUDs
  - Required pain of at least moderate or greater
- All participants received treatment as usual in the outpatient SUD program (1-3 sessions per week, relapse-prevention and harm-reduction model; encouragement of self-help group attendance) as well as usual treatment from other treatment providers.

# Methods

- Participants were randomized to one of two 12-week groups:
  - CBT for pain and SUDs
  - Supportive Psychoeducation Control (SPC) – similar in structure to what has been used in other SUD studies (Fals-Stewart & Klostermann, 2004) w/ specific pain content
- Participants were followed at 3-, 6-, and 12-months with goal of examining impact of random assignment (CBT vs. SPC) on pain, functioning and substance use

# Methods

- Follow rates:
  - 3-month (81.82%)
  - 6-month (85.61%)
  - 12-months (84.09%)
- Preliminary descriptive analyses are presented to convey changes in key domains
- Final analyses will use expanded measurement of key domains (substance use, prescription use) and more sophisticated models of individual change that also control for clustering within groups

# Demographic characteristics

	Treatment Group		p-value <sup>1</sup>
	SPC	CBT	
<b>N</b>	66	64	
<b>Age (Mean, SD)</b>	51.3 (10.1)	51.7 (9.3)	NS
<b>Gender (n, %)</b>			
<b>Men</b>	57 (89%)	58 (88%)	NS
<b>Race/ethnic group</b>			
<b>White</b>	44 (67%)	36 (56%)	NS
<b>All others</b>	22 (33%)	28 (44%)	
<b>Partnered</b>			
<b>Yes</b>	15 (23%)	11 (17%)	NS
<b>Employed</b>			
<b>Yes</b>	2 (3%)	8 (13%)	0.05
<b>Education</b>			
<b>H.S. or less</b>	32 (48%)	27 (42%)	NS

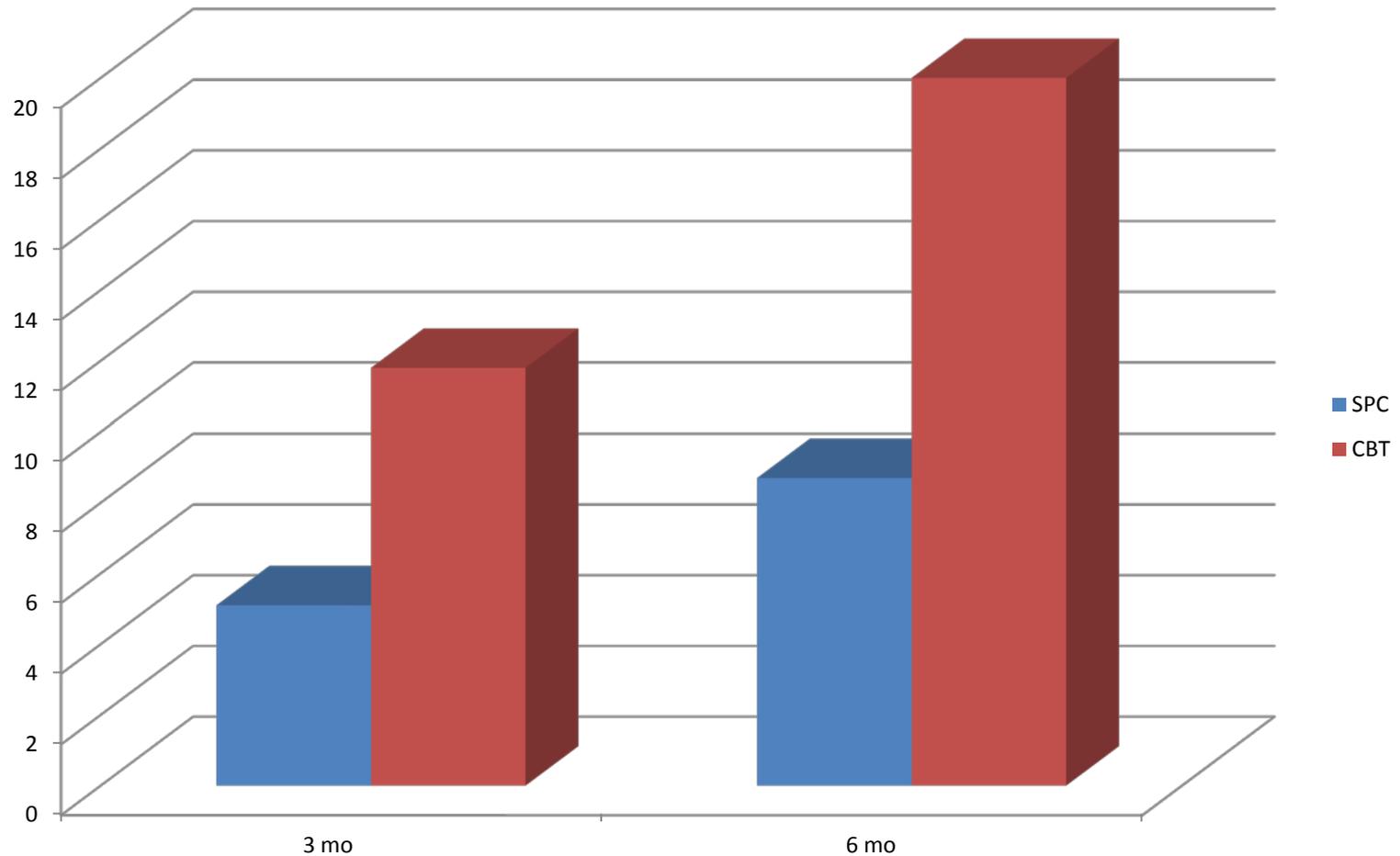
# Results related to pain

	Treatment Group		p-value
	SPC	CBT	
	Mean (SD)	Mean (SD)	
<b>NRS1: average pain in the last week</b>			
3 mo. - BL difference	-0.48 (0.30)	-1.32 (0.29)	< 0.05
6 mo. - BL difference	-0.48 (0.30)	-1.36 (0.29)	< 0.05
<b>WHYMPI: General Activity score</b>			
3 mo. - BL difference	-0.288 (0.110)	0.196 (0.101)	< 0.05
6 mo. - BL difference	0.136 (0.156)	0.071 (0.137)	NS
<b>Pain Tolerance (seconds)</b>			
3 mo. - BL difference	-6.2 (50.2)	0.2 (33.0)	NS
6 mo. - BL difference	6.4 (49.2)	3.5 (28.6)	NS
<b>CPSS: Total SE score</b>			
3 mo. - BL difference	2.4 (7.6)	29.1 (7.6)	< 0.05
6 mo. - BL difference	11.8 (8.5)	31.5 (7.4)	< 0.10

# Results related to substance use

	Treatment Group		p-value
	SPC	CBT	
<b>N</b>	66	64	
	N (%)	N (%)	
<b>Alcohol:</b>			
<b>Abstinent at 3mo.</b>	20 (39%)	25 (46%)	NS
<b>Abstinent at 6mo.</b>	24 (55%)	29 (58%)	NS
<b>Marijuana:</b>			
<b>Abstinent at 3mo.</b>	40 (77%)	40 (74%)	NS
<b>Abstinent at 6mo.</b>	38 (86%)	41 (82%)	NS
<b>Cocaine:</b>			
<b>Abstinent at 3mo.</b>	45 (88%)	47 (87%)	NS
<b>Abstinent at 6mo.</b>	44 (100%)	47 (94%)	NS
<b>Rx Opioids Misuse:</b>			
<b>Abstinent at 3mo.</b>	30 (59%)	41 (76%)	< 0.10
<b>Abstinent at 6mo.</b>	28 (64%)	38 (76%)	NS

CPSS Q 5) How certain are you that you can make a larger reduction in your pain by using methods other than taking extra medications?



# Summary of early results of randomized trial of CBT for pain and SUDs

- Delivery of CBT for pain was feasible during an episode of SUD treatment:
  - Patients were very positive about these groups
- Early evidence indicate that, compared to an attention control condition (SPC), the CBT condition may be associated with reductions in pain level, improved functioning, and increased self-efficacy to control pain at one or more follow-up time period
- The effects on basic measures of abstinence were not seen (with the possible exception of the measure of prescription opioid misuse at 3-months)
- Further analyses are needed to examine these

# Steps to Improve Pain Management in Any Treatment Setting

- Ask about pain in SUD settings and how this relates to the patient's substance-related goals
- Ask about prescription pain medications.
  - “How often have you taken your medications differently from how they are prescribed?”
  - “How often have you had to take more of your medication than prescribed?”
  - “How often have you borrowed pain medication from someone else?”
- Try to understand patients' motivation for using pain medication – what are their beliefs about pain medications?
- Reinforce the message that managing pain does not always have to involve using a substance.
- Discuss 'hurt' versus 'harm'

Thank You!

Please feel free to contact me:

[mark.ilgen@va.gov](mailto:mark.ilgen@va.gov)