

Quality of Care and Patient Outcomes following Discontinuation of Long-term Opioid Therapy in High-Risk Patients

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Poll Question #1

- What is your primary role in VA?
 - student, trainee, or fellow
 - clinician
 - researcher
 - Administrator, manager or policy-maker
 - Other

Poll Question #2

- Which best describes your research experience?
 - have not done research
 - have collaborated on research
 - have conducted research myself
 - have applied for research funding
 - have led grant-funded research

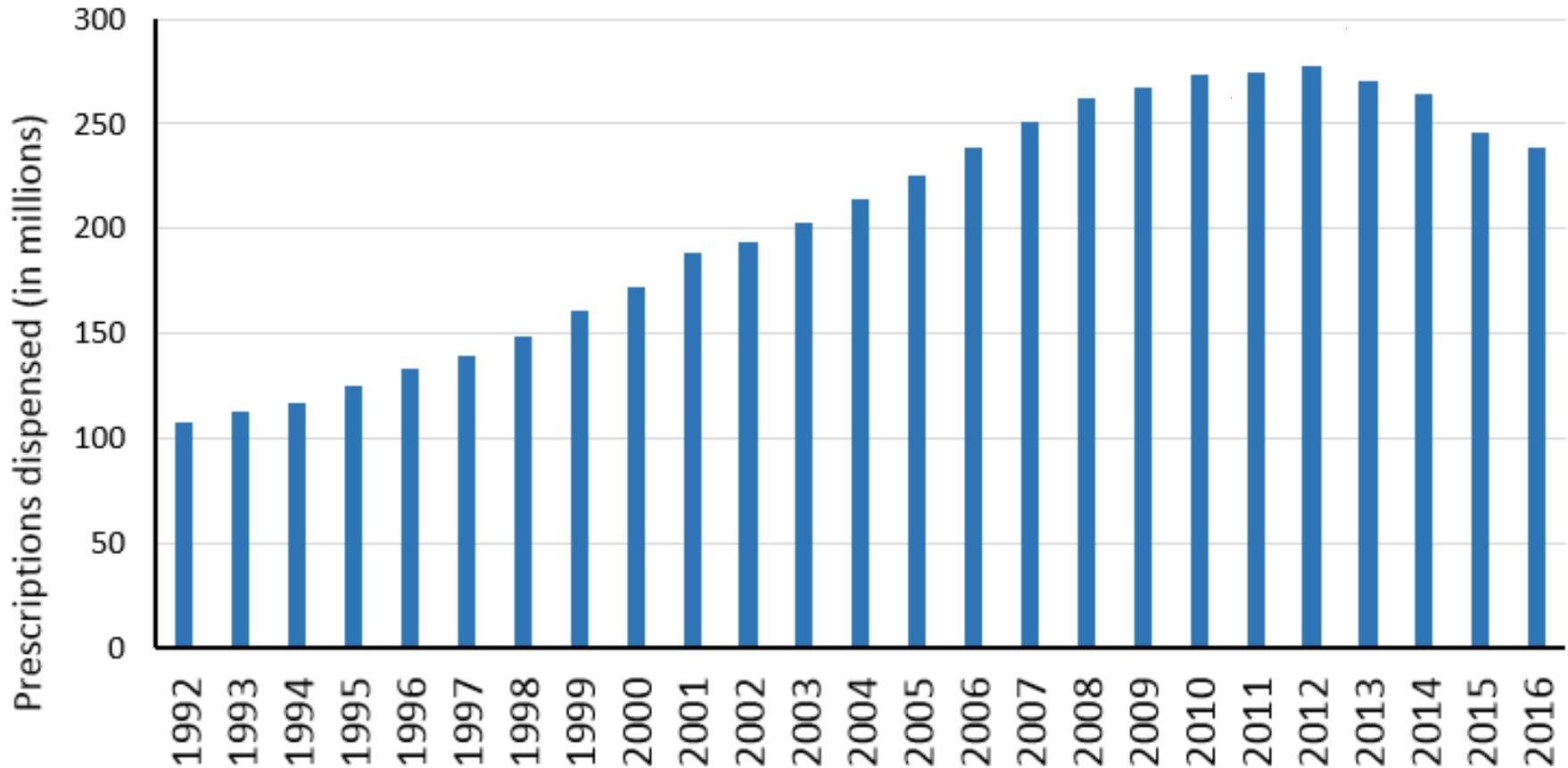
Disclosures and Conflicts of Interest

I have no financial, personal, or other relationships that would cause conflicts of interest with the information reported here.

Overview

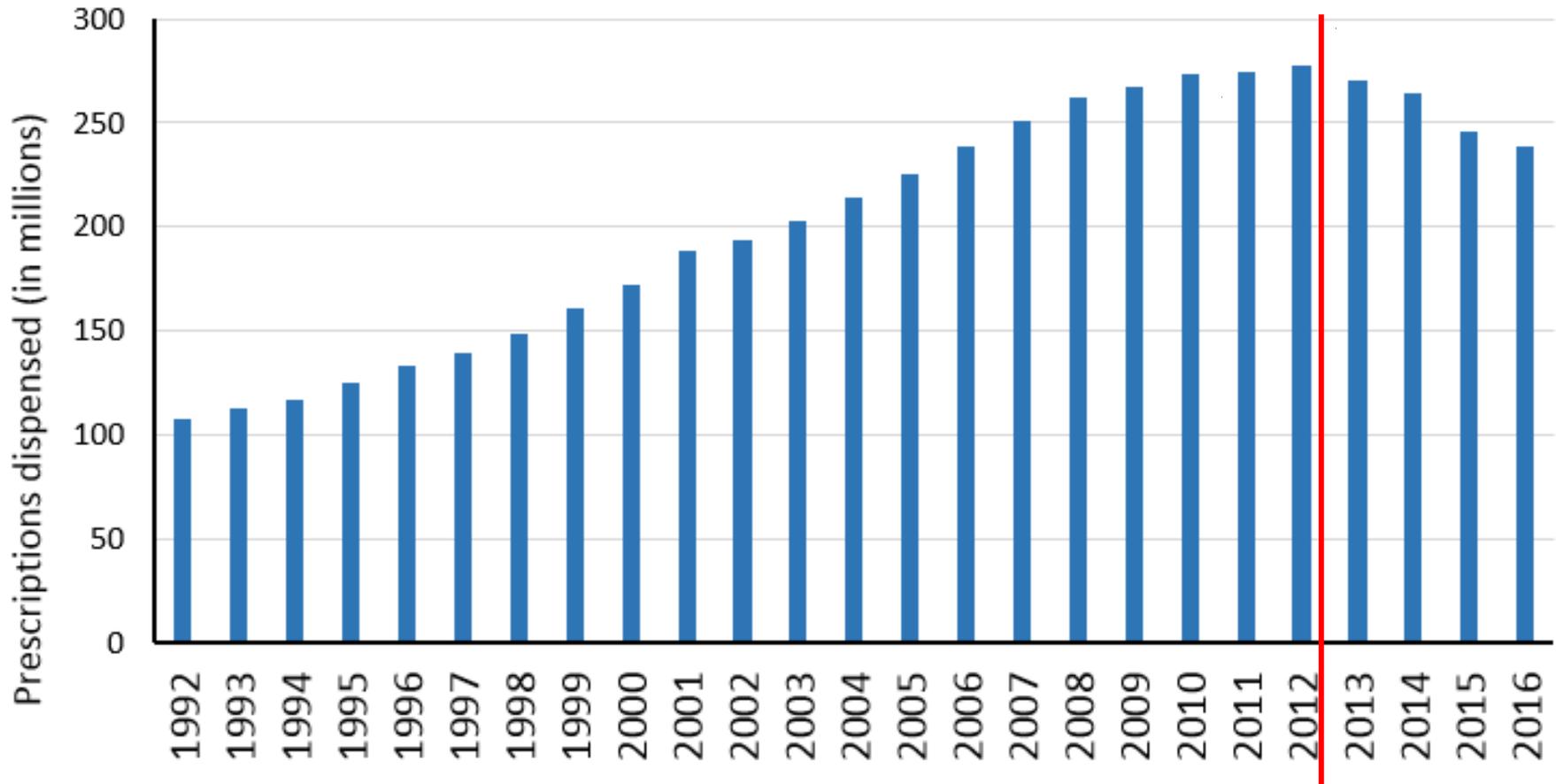
- Trends in opioid prescribing
- Factors that lead to opioid taper and discontinuation
- Potential unintended negative consequences of discontinuation
- Results of recently completed work
- Future directions

Figure 1. Opioid Prescriptions Dispensed in the U.S. Annually, 1992-2016.



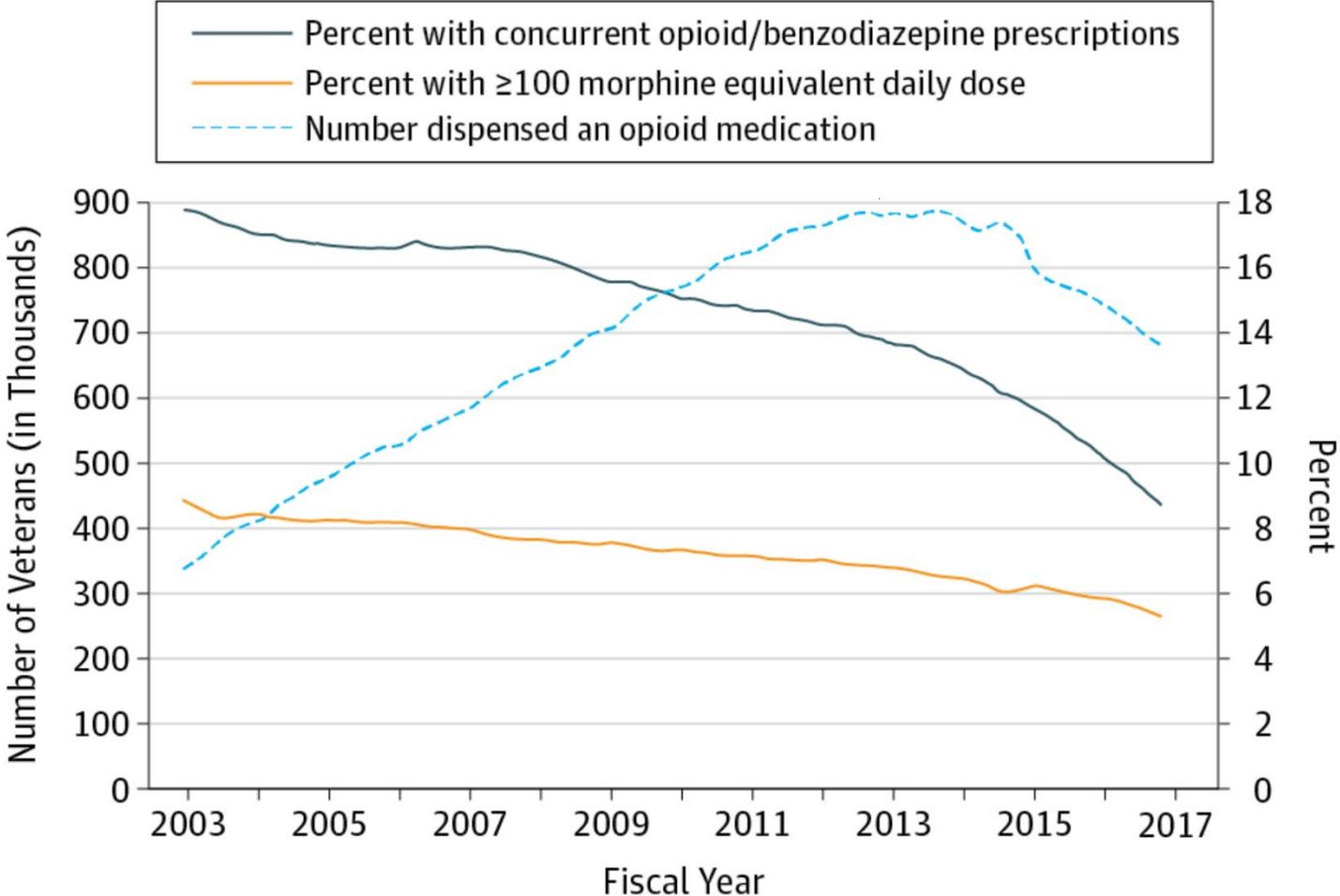
Pezalla et al. Secular trends in opioid prescribing in the USA. *J Pain Res.* 2017;10:383-387.

Figure 1. Opioid Prescriptions Dispensed in the U.S. Annually, 1992-2016.



Pezalla et al. Secular trends in opioid prescribing in the USA. *J Pain Res.* 2017;10:383-387.

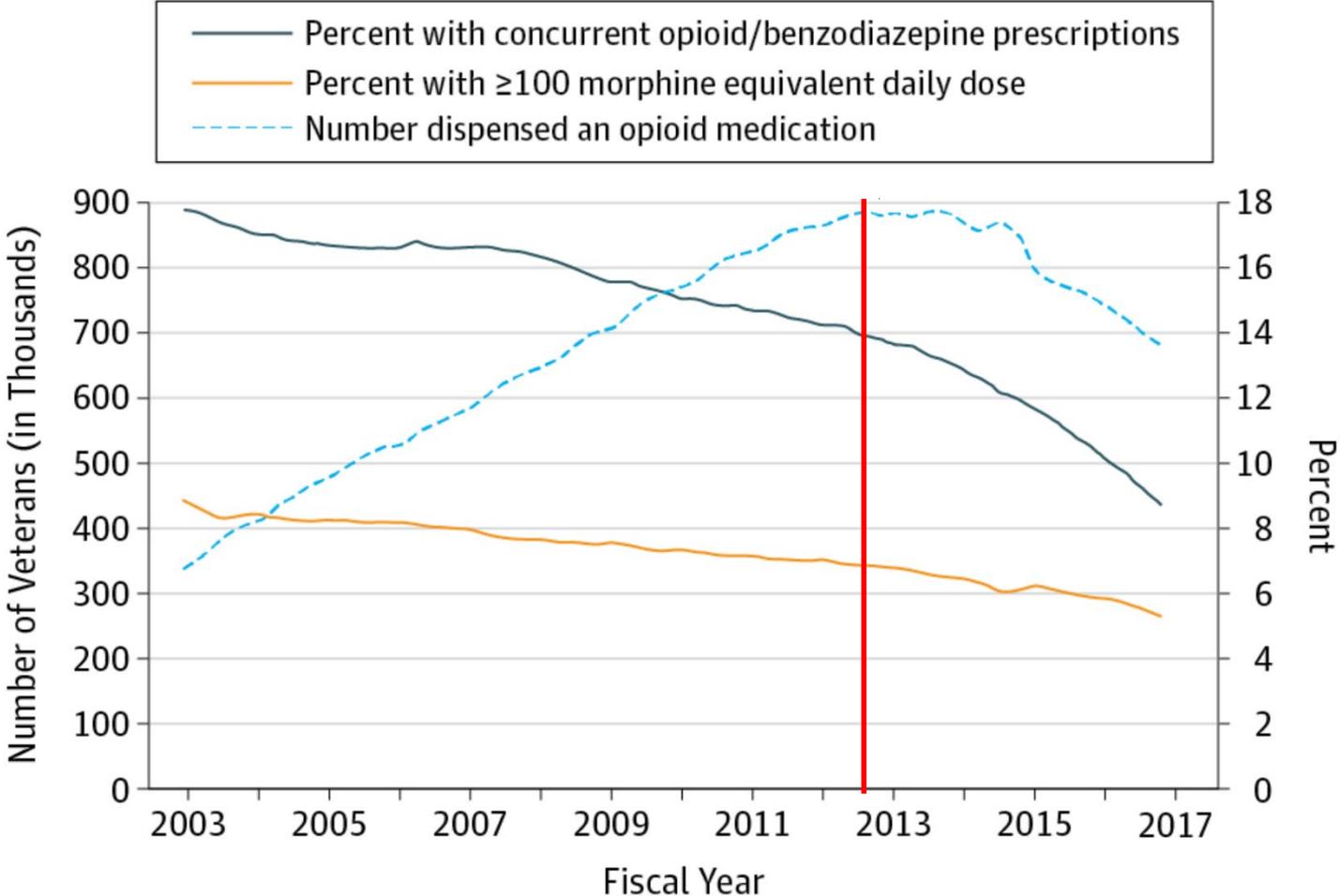
Veterans Dispensed at Least 1 Opioid Medication in the VA Health Care System, and Percent of Opioid Recipients With Concurrent Benzodiazepine Prescriptions and High Opioid Dosage



Gellad et al. Addressing the Opioid Epidemic in the United States
 Lessons From the Department of Veterans Affairs. JAMA Intern
 Med. 2017;177(5):611-612.



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Why might this be?

Clinical practice guidelines (VA/DoD, CDC, APS/AAPM)



VA/DoD CLINICAL PRACTICE GUIDELINE FOR OPIOID THERAPY FOR CHRONIC PAIN

Department of Veterans Affairs

Department of Defense

GUIDELINE FOR PRESCRIBING OPIOIDS FOR CHRONIC PAIN

IMPROVING PRACTICE THROUGH RECOMMENDATIONS

CDC's *Guideline for Prescribing Opioids for Chronic Pain* is intended to improve communication between providers and patients about the risks and benefits of opioid therapy for chronic pain, improve the safety and effectiveness of pain treatment, and reduce the risks associated with long-term opioid therapy, including opioid use disorder and overdose. The Guideline is not intended for patients who are in active cancer treatment, palliative care, or end-of-life care.

Greater awareness of the opioid “epidemic” through media portrayals



RESEARCH
EDUCATION
TREATMENT
ADVOCACY



The Journal of Pain, Vol 14, No 12 (December), 2013: pp 1686-1693
Available online at www.jpain.org and www.sciencedirect.com

Prescribing Practices Amid the OxyContin Crisis: Examining the Effect of Print Media Coverage on Opioid Prescribing Among Physicians

Alexandra Borwein,^{*} George Kephart,^{*} Emma Whelan,[†] and Mark Asbridge^{*,†}

*Departments of *Community Health and Epidemiology and[†]Sociology and Social Anthropology, Dalhousie University, Halifax, Nova Scotia, Canada.*

“Following peak media attention in the United States, the prescribing of oxycodone extended release slowed.”

JAMA | Original Investigation

Effect of Opioid vs Nonopioid Medications on Pain-Related Function in Patients With Chronic Back Pain or Hip or Knee Osteoarthritis Pain

The SPACE Randomized Clinical Trial

Erin E. Krebs, MD, MPH; Amy Gravely, MA; Sean Nugent, BA; Agnes C. Jensen, MPH; Beth DeRonne, PharmD; Elizabeth S. Goldsmith, MD, MS; Kurt Kroenke, MD; Matthew J. Bair; Siamak Noorbaloochi, PhD

“Treatment with opioids was not superior to treatment with nonopioid medications for improving pain-related function over 12 months.”



Significant risk of adverse harms

REVIEW

Annals of Internal Medicine

The Effectiveness and Risks of Long-Term Opioid Therapy for Chronic Pain: A Systematic Review for a National Institutes of Health Pathways to Prevention Workshop

Roger Chou, MD; Judith A. Turner, PhD; Emily B. Devine, PharmD, PhD, MBA; Ryan N. Hansen, PharmD, PhD; Sean D. Sullivan, PhD; Ian Blazina, MPH; Tracy Dana, MLS; Christina Bougatsos, MPH; and Richard A. Deyo, MD, MPH

Ann Intern Med. 2015;162:276-286. doi:10.7326/M14-2559 www.annals.org

For author affiliations, see end of text.

This article was published online first at www.annals.org on 13 January 2015.

“...increased risk for overdose, opioid abuse, fractures, myocardial infarction, and markers of sexual dysfunction.”

Prescription Drug Monitoring Programs (PDMPs)

- In 2013, the VA began allowing clinicians to query state PDMPs for VA patients.¹
- Current VA policy mandates PDMP queries for **any new controlled prescriptions and/or at least quarterly for prescription refill**

Department of Veterans Affairs
Veterans Health Administration
Washington, DC 20420

VHA DIRECTIVE 1306
Transmittal Sheet
October 19, 2016

QUERYING STATE PRESCRIPTION DRUG MONITORING PROGRAMS (PDMP)

1. REASON FOR ISSUE: This Veterans Health Administration (VHA) Directive establishes policy requiring VHA health care provider participation in State Prescription Drug Monitoring Programs.

4. POLICY: It is VHA policy that state PDMP databases are queried for VHA patients who are receiving prescriptions for controlled substances as outlined in this policy on a **minimum of an annual basis** and that the results of queries are documented in the VA medical record. State PDMP databases will be queried **prior to initiating therapy with a controlled substance and more often when clinically indicated.** The requirements to query set forth in this paragraph are subject to limitations imposed by states on VA's access to such databases.

¹ US Federal Register, 2013.

Local, state, and national initiatives to promote safer opioid prescribing

Research Paper

PAIN[®]



Impact of the Opioid Safety Initiative on opioid-related prescribing in veterans

Lewei A. Lin^{a,*}, Amy S.B. Bohnert^{a,b}, Robert D. Kerns^c, Michael A. Clay^d, Dara Ganoczy^b, Mark A. Ilgen^{a,b}

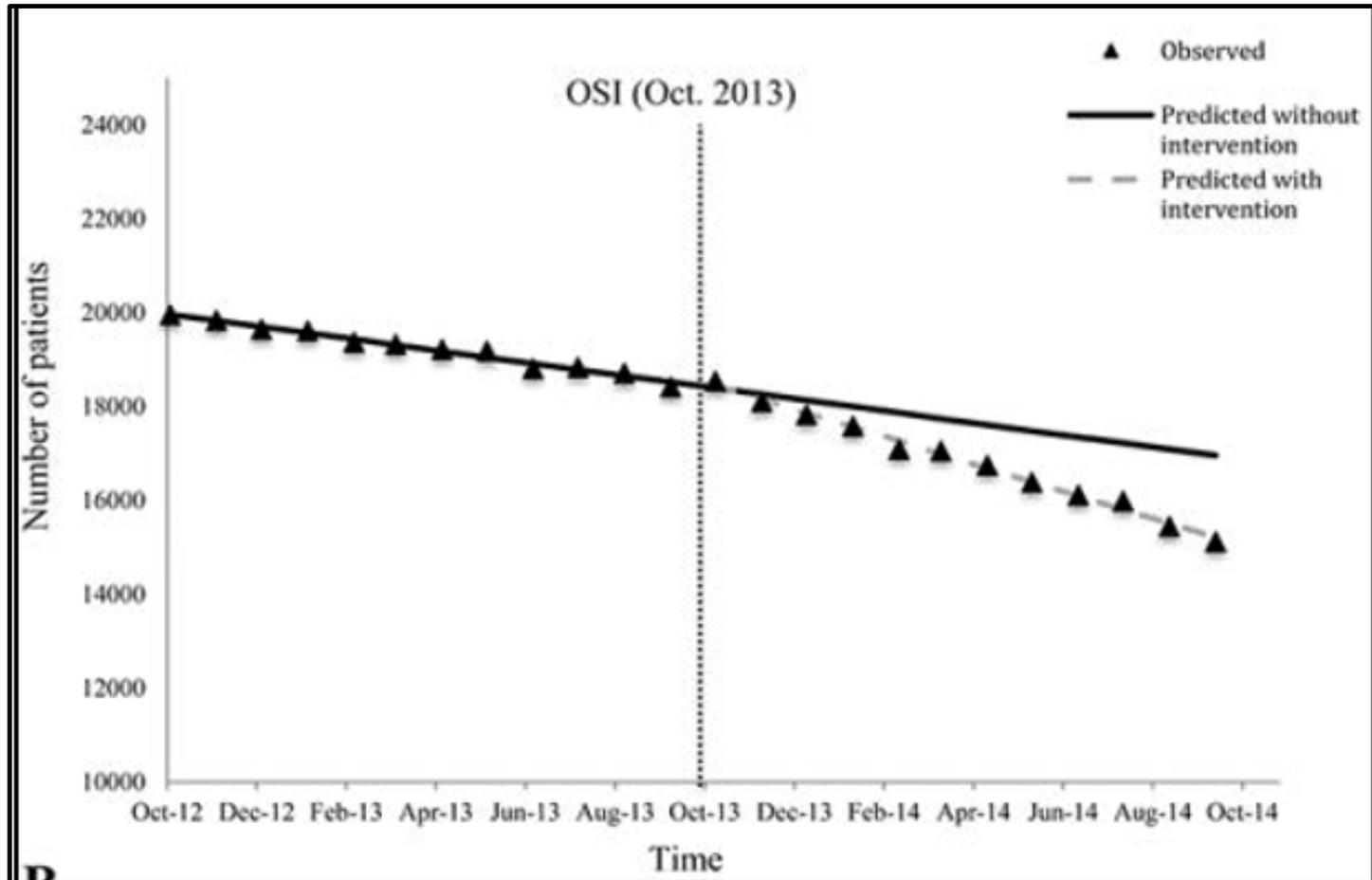
PAIN 158 (2017) 833–839

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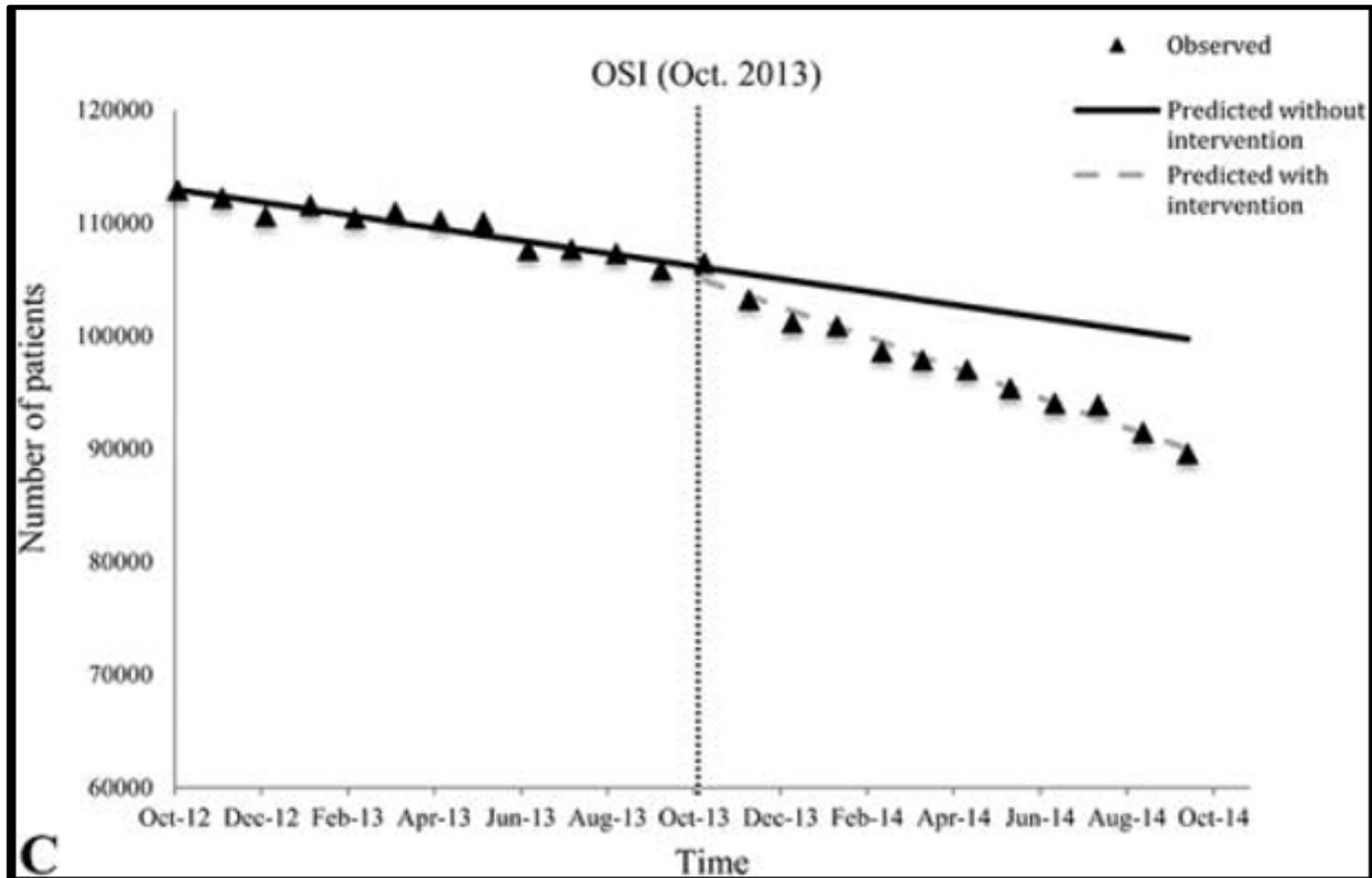
<http://dx.doi.org/10.1097/j.pain.0000000000000837>



High-dose opioids, > 200 MMED



Co-prescribed opioids and benzodiazepines



C

Favorable outcomes following opioid taper and discontinuation

Annals of Internal Medicine

REVIEW

Patient Outcomes in Dose Reduction or Discontinuation of Long-Term Opioid Therapy

A Systematic Review

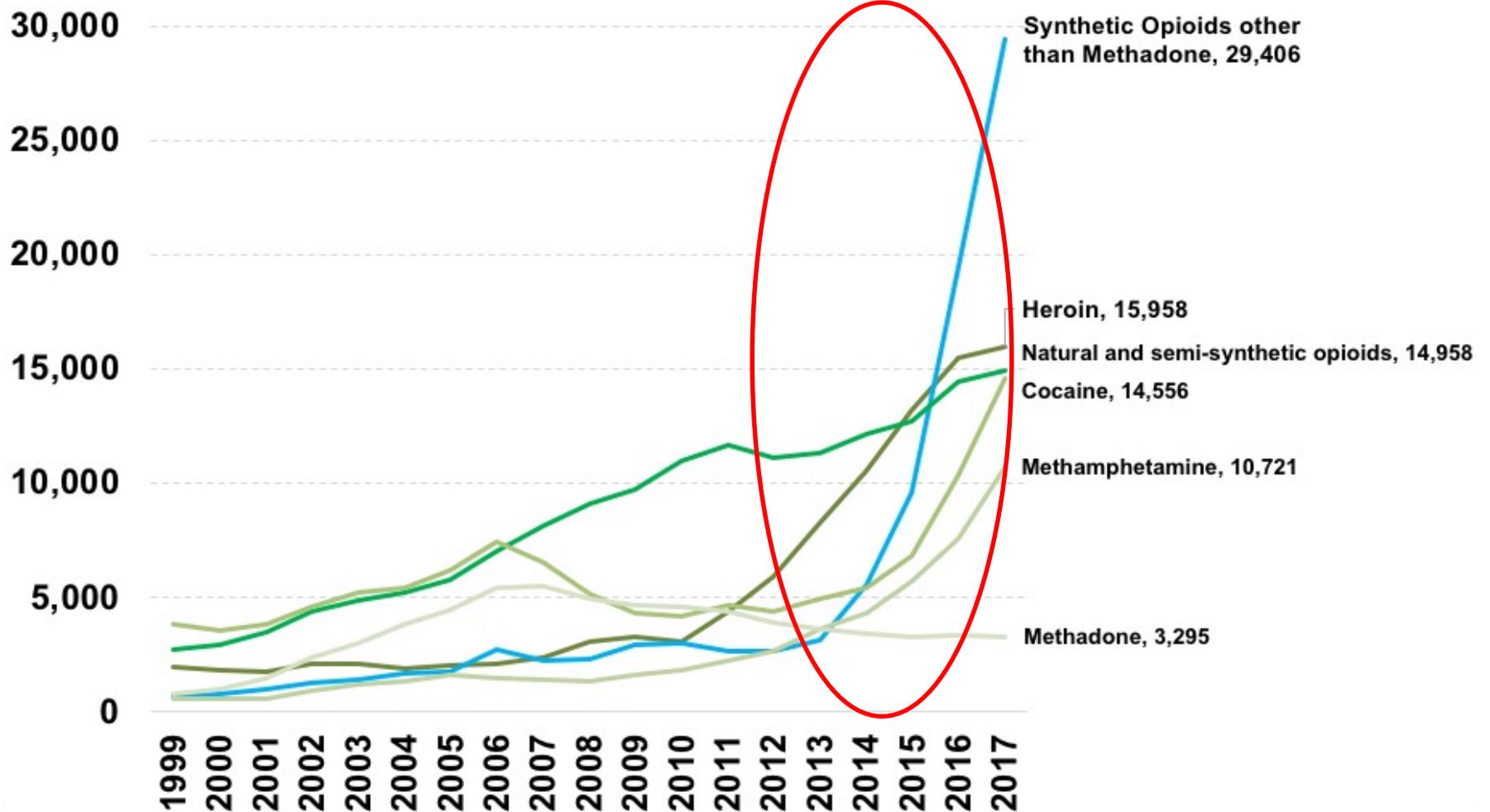
Joseph W. Frank, MD, MPH; Travis I. Lovejoy, PhD, MPH; William C. Becker, MD; Benjamin J. Morasco, PhD; Christopher J. Koenig, PhD; Lilian Hoffecker, PhD, MLS; Hannah R. Dischinger, BS; Steven K. Dobscha, MD; and Erin E. Krebs, MD, MPH

- Systematic review
 - 36 studies that assessed pain intensity outcome, 17 functioning, and 12 quality of life
- Among fair quality studies, opioid dose reduction was associated with reduced pain intensity and improved functioning and quality of life



So what could go wrong?

Drugs Involved in U.S. Overdose Deaths, 1999 to 2017



Managing pain with non-opioid substances

Opioids Out, Cannabis In

N
C
Esth
» A
JAM

“People are using marijuana as a pain blocker. All my buddies are shifting to marijuana.”

- Veteran describing alternative pain treatment following discontinuation

“The mandated transition to limit use of opioids, paired with the current climate around liberalizing cannabis, may lead to patients’ formal and informal substitution of cannabis for opioids.”

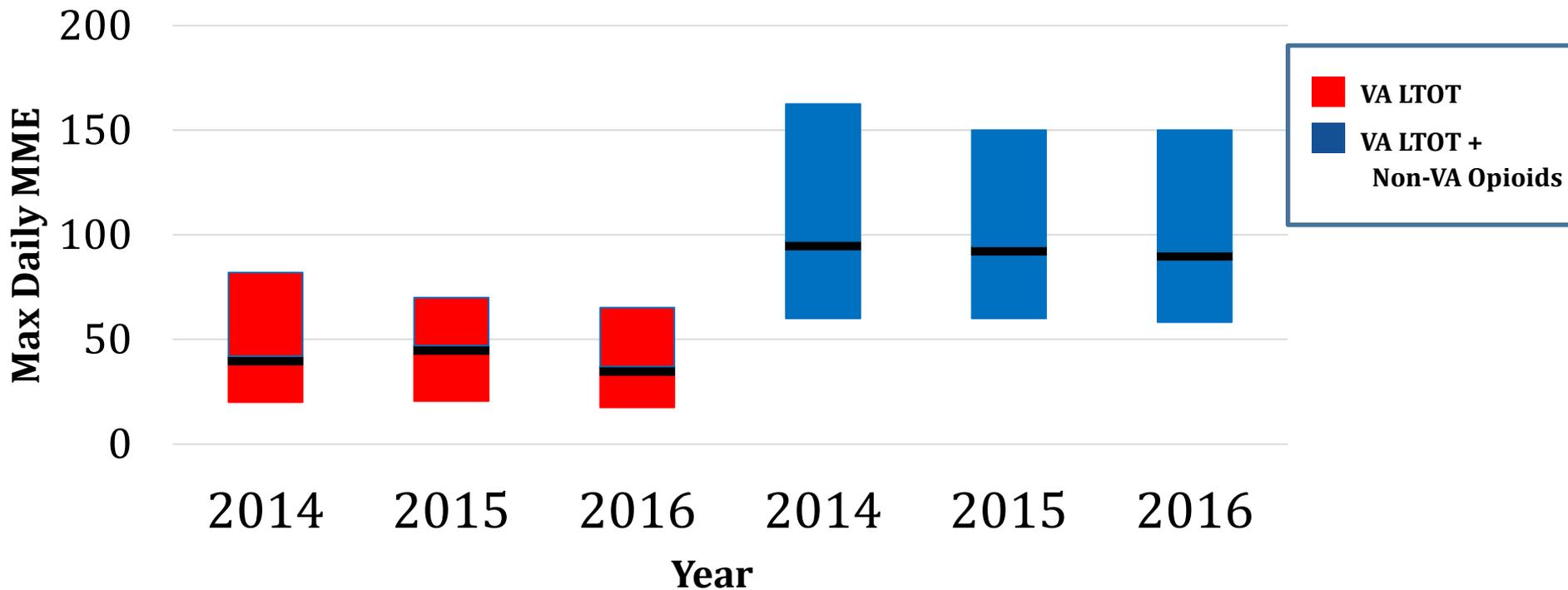
Shifting opioid prescribing burdens to other systems of care

Prevalence of Dual VA/non-VA Prescriptions, 2014-2016

- Among 5,882 Veterans that received VA Opioids, Benzodiazepine, or Non-Benzodiazepine Sedative Hypnotics:
 - **35%** had received these medications from non-VA pharmacies at any time
 - **17%** had received these medications concurrently

	VA Prescription Drug Class*		
	Opioids n=4,385	Benzodiazepines n=1,649	Non- benzodiazepines n=1,626
Concurrent Prescription Drug Class*	n (%)	n (%)	n (%)
Non-VA			
Opioids	661 (15.1%)	236 (13.7%)	218 (13.4%)
Benzodiazepines	126 (2.9%)	145 (8.8%)	53 (3.3%)
Non-benzodiazepines	34 (0.8%)	22 (1.3%)	74 (4.6%)

Maximum Daily Concurrent MMEDs among Veterans on LTOT and non-VA Opioids



IIR 15-091; PI Carlson

Disengage from care

Research Paper

PAIN[®]



Reasons for discontinuation of long-term opioid therapy in patients with and without substance use disorders

Travis I. Lovejoy^{a,b,c,*}, Benjamin J. Morasco^{a,b}, Michael I. Demidenko^a, Thomas H.A. Meath^{a,d}, Joseph W. Frank^{e,f}, Steven K. Dobscha^{a,b}

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<http://dx.doi.org/10.1097/j.pain.0000000000000796>

19% of regular VA users disengaged from VA care following discontinuation of long-term opioid therapy.

Negatively impact relationships between patients and members of their clinical care teams

Pain Medicine 2016; 17: 1838–1847
doi: 10.1093/pm/pnw078

PR

Orig

Pat

Opi

“[I was told about my discontinuation in an] email, not even a phone call. This is not how you taper off long-term opiate users. You should call them in, talk to them, develop a plan for tapering.”

- Veteran describing opioid discontinuation process

Joseph
PhD,^{†,‡} Daniel D. Matlock, MD, MPH,^{*,§} Susan L.
Calcaterra, MD, MPH,^{*,¶} Shane R. Mueller,
MSW,^{*,||,|||} Stephen Koester, PhD,^{||,**,|||} and Ingrid A.
Binswanger, MD, MPH^{*,||}

Study of opioid discontinuation in Veterans with and without substance use disorders

- Retrospective electronic medical record review and administrative data abstraction
- Cohort of Veterans prescribed opioids through VA in 2011
- Discontinued LTOT in 2012
- Randomly sampled 300 with SUD diagnosis
- Propensity score matched 300 without SUD diagnosis

Likelihood of LTOT discontinuation between patients with and without SUD, n = 600

Discontinuation Reason	SUD, % (n)	No SUD, % (n)	Unadjusted odds ratio (95% confidence interval)	Adjusted odds ratio (95% confidence interval)
<u>Aberrant behaviors</u>	70% (211)	57% (171)	1.79 (1.28-2.51)*	1.93 (1.34-2.80)*
Known or suspected substance abuse	52% (157)	35% (105)	2.04 (1.47-2.83)*	2.26 (1.58-3.22)*
Aberrant urine drug test	39% (118)	35% (105)	1.20 (0.86-1.68)	1.21 (0.85-1.73)
Opioid misuse	18% (53)	13% (39)	1.44 (0.92-2.25)	1.31 (0.80-2.14)
Nonadherence to pain plan of care	9% (27)	14% (41)	0.63 (0.37-1.05)	0.59 (0.33-1.04)
Known or suspected opioid diversion	5% (14)	2% (7)	2.05 (0.82-5.15)	1.65 (0.61-4.48)

Lovejoy TI, Morasco BJ, Demidenko MI, Meath THA, Frank JW, Dobscha SK. Reasons for discontinuation of long-term opioid therapy in patients with and without substance use disorders. Pain. 2017;158:526-534.

N = 509 patients discontinued from LTOT by the opioid-prescribing clinician

Received an opioid taper	15% (74)
Prescribed non-opioid analgesic medication	45% (225)
Referred for non-pharmacologic pain treatment	58% (296)
Referred for complementary and integrative pain therapies	25% (125)
Referred for specialty mental health treatment	65% (330)
Referred for specialty SUD treatment	34% (175)

Lovejoy TI, Morasco BJ, Demidenko MI, Meath THA, Dobscha SK. Clinician referrals for non-opioid pain care following discontinuation of long-term opioid therapy differ based on reasons for discontinuation. *J Gen Intern Med.* 2018;33(Suppl 1):24-30.

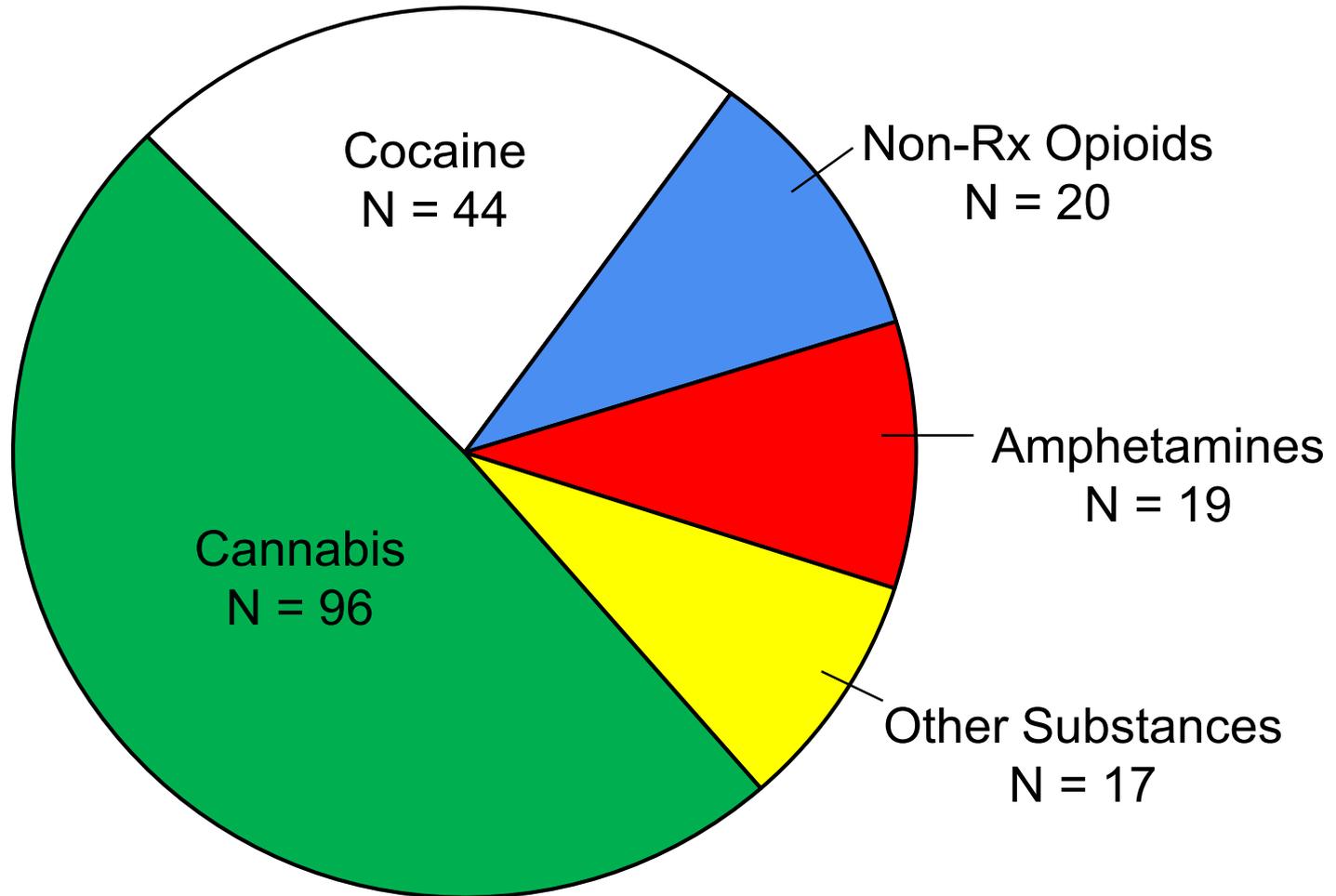
Discontinuation following aberrant UDTs

Table 2. Likelihood of discontinuation due to a positive UDT based on the type of substance for which patients test positive (N = 185)*

Substance type	Association with decision to discontinue LTOT	
	Unadjusted OR (95% CI)	Adjusted OR (95% CI)
Cannabis versus nonprescribed controlled substances	12.00 (5.44-26.48)	18.05 (7.29-44.66)
Cannabis versus alcohol/illicit substances	1.12 (0.47-2.69)	1.47 (0.57-3.77)
Alcohol/illicit substances versus nonprescribed controlled substances	10.70 (4.16-27.54)	13.10 (4.81-35.68)

Wyse JJ, Morasco BJ, Dobscha SK, Demidenko MI, Meath THA, Lovejoy TI. Provider reasons for discontinuing long-term opioid therapy following aberrant urine drug tests differ based on the type of substance identified. J Opioid Manag. 2018;14:295-303.

LTOT discontinuation due to a positive urine drug test

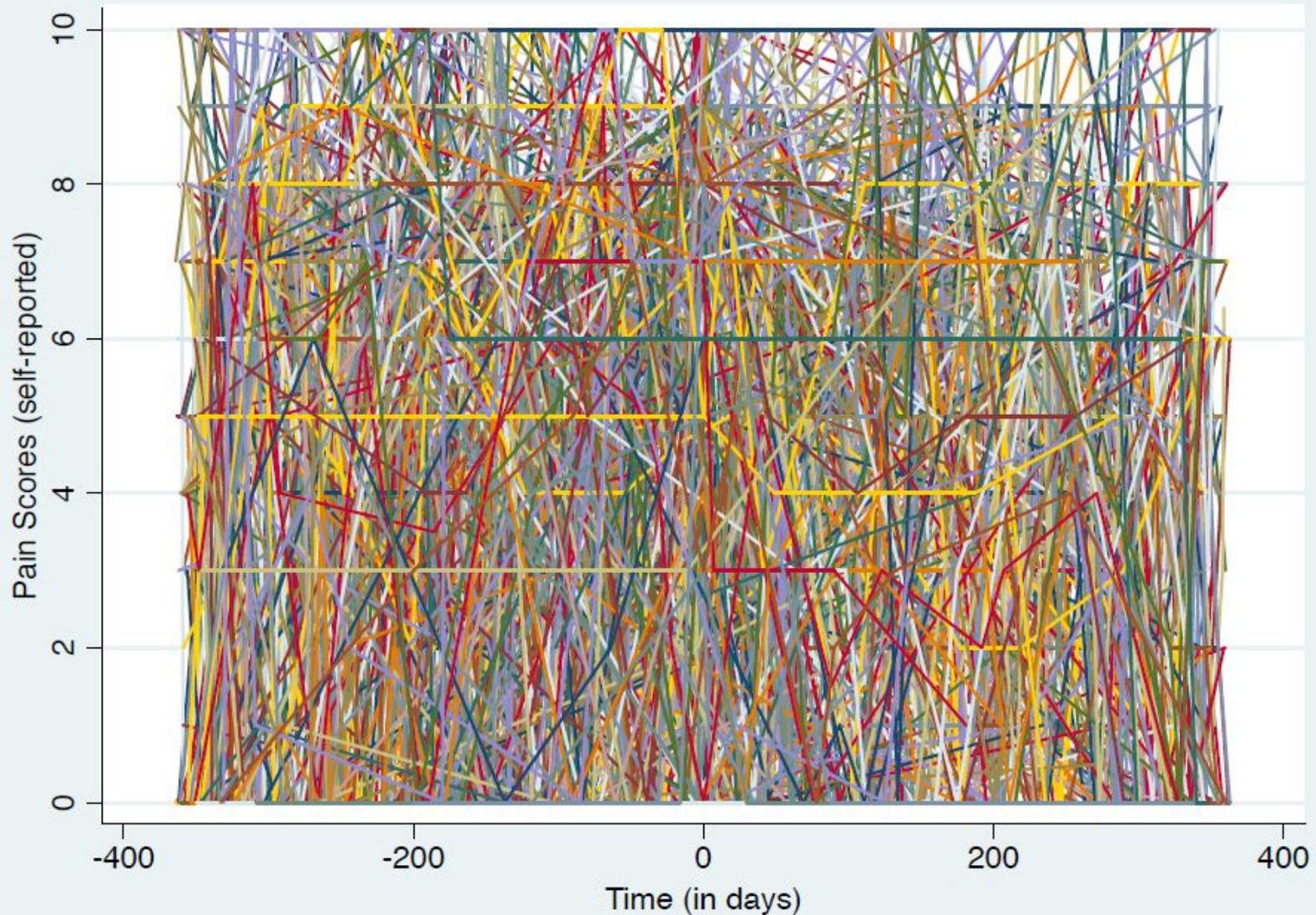


Nugent SM, Dobscha SK, Morasco BJ, Demidenko MI, Meath THA, Frank JW, Lovejoy TI. Substance use disorder treatment following clinician-initiated discontinuation of long-term opioid therapy resulting from an aberrant urine drug test. *J Gen Intern Med.* 2017;32:1076-1082.

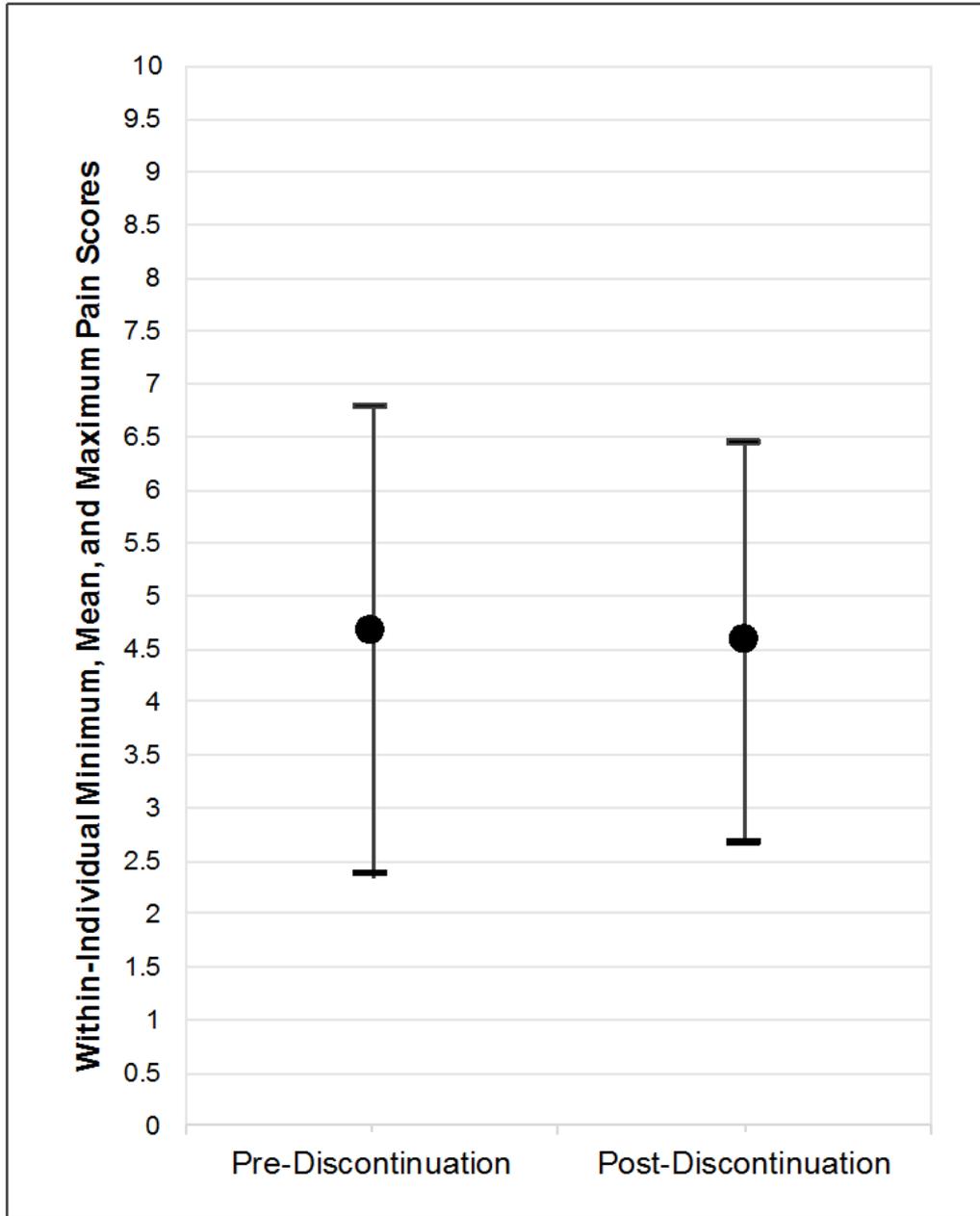
Likelihood of SUD treatment referral and engagement following substance-related LTOT discontinuation

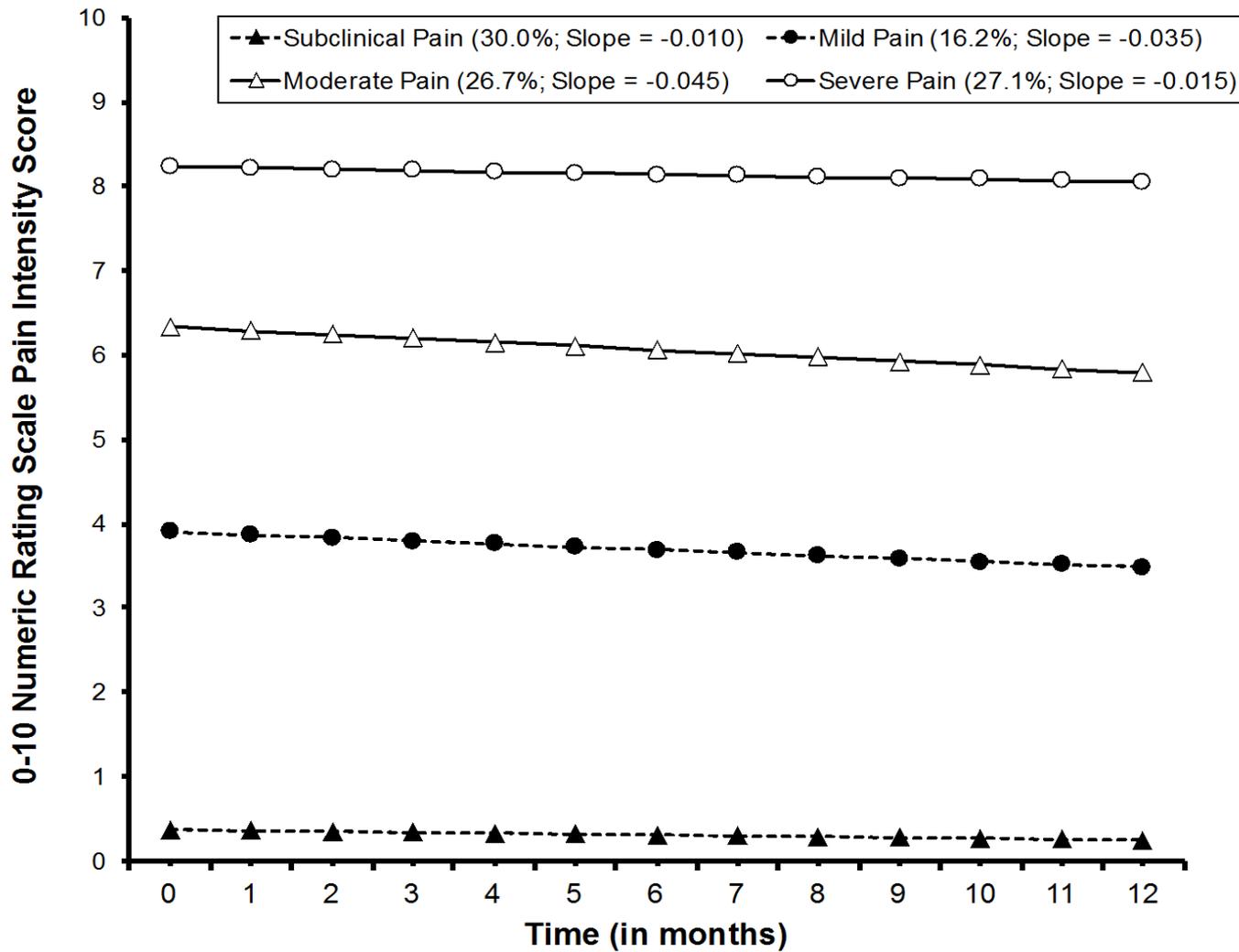
Substance leading to discontinuation	Unadjusted OR (95% CI)	Adjusted OR (95% CI)
Association with SUD treatment clinician referral		
Cannabis	0.53 (0.28–0.98)	0.44 (0.23–0.84)
Cocaine	2.73 (1.35–5.53)	3.32 (1.57–7.06)
Association with SUD treatment engagement		
Cannabis	0.53 (0.25–1.13)	0.42 (0.19–0.94)
Cocaine	1.76 (0.78–3.94)	2.44 (1.00–5.96)

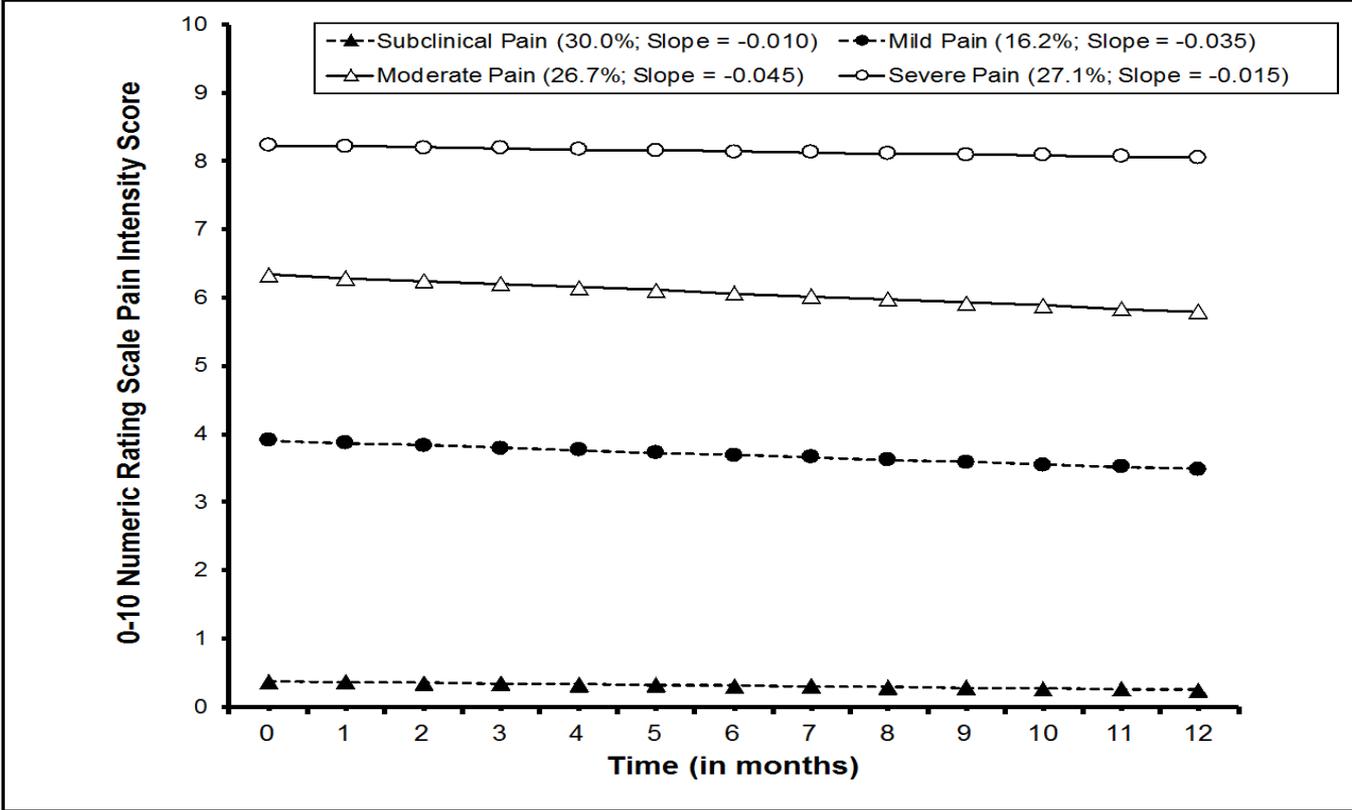
*Adjusted models controlled for age, gender, race, pre-discontinuation mental health diagnosis, and pre-discontinuation SUD diagnosis.



McPherson S, Smith CL, Dobscha SK, Morasco BJ, Demidenko MI, Meath THA, Lovejoy TI. Changes in pain intensity following Discontinuation of long-term opioid therapy for chronic non-cancer pain. *Pain*. 2018;159:2097-2104.

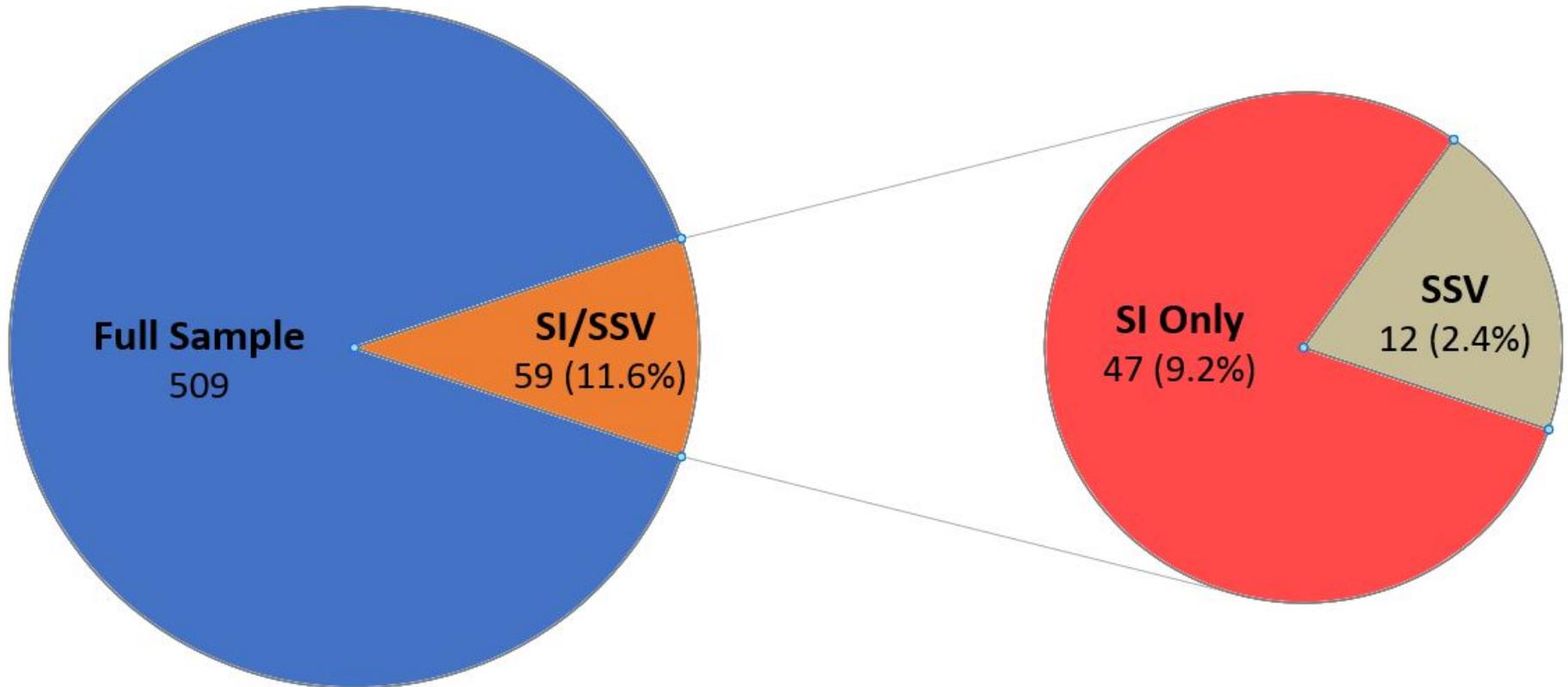






	OR (95% CI)
Average pre-discontinuation pain intensity	1.29 (1.24-1.33)
Higher MEDD	1.01 (1.00-1.02)
Patient-initiated discontinuation	0.70 (0.57-0.86)

Suicidal ideation and suicidal self-directed violence in patients discontinued from LTOT by the opioid-prescribing clinician



Demidenko MI, Dobscha SK, Morasco BJ, Meath THA, Ilgen MA, Lovejoy TI. Suicidal ideation and behaviors following clinician-initiated prescription opioid discontinuation among long-term opioid users. *Gen Hosp Psychiatry*. 2017;47:29-35.

New onset suicidal ideation or suicidal self-directed violence following LTOT discontinuation by the opioid-prescribing clinician, n = 509

	OR (95% CI)
Mental health diagnoses	
Depressive disorder	0.93 (0.38–2.31)
Bipolar disorder	0.28 (0.03–2.37)
PTSD	3.78 (1.41–10.14)*
Other anxiety disorders	1.06 (0.43–2.60)
Psychotic-spectrum disorders	6.72 (1.73–26.17)*
Substance use disorder diagnosis	0.86 (0.39–1.87)
Prescribed benzodiazepine in the year prior to discontinuation	0.73 (0.21–2.59)
Average MEDD in the year prior to discontinuation	1.00 (1.00–1.01)

Limitations

- Data obtained exclusively from the electronic medical record likely underestimates prevalence of some clinical phenomena (e.g., SI, SUD)
- Focused on patients at risk of discontinuation due to aberrant behaviors (SUD and matched controls)
- Patient experiences with the opioid discontinuation process is unknown
- Pain and other care received outside of the VA is unknown

Future Directions – HSR&D IIR

- Establish a cohort of ~1,200 Veterans on LTOT, randomly sampled from all VA patients (oversample women and racial/ethnic minority patients)
- Survey every 6 months for 2 years – patient outcomes, treatment utilization
- Identify discontinuation and conduct additional longitudinal qualitative and quantitative assessments about opioid discontinuation experiences
- Partner with VHA Primary Care Operations and VHA Pain Management

Other Future Directions

- Examine the association between opioid taper and discontinuation with suicide outcomes
- Explore transitions to non-VA opioid and cannabis use following discontinuation of LTOT
- Test the effectiveness of collaborative pain (and SUD) care for patients discontinued from LTOT due to aberrant behaviors

Conclusions

- Opioid taper and discontinuation will continue
- There may be unintended negative consequences of universal policies that promote opioid taper and discontinuation
- One size probably doesn't fit all
- We know little about who will “successfully” discontinue LTOT and what resources and care practices best support these patients

Acknowledgments

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- Steven Dobscha, MD
- Benjamin Morasco, PhD
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- Joe Frank, MD, MPH
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- Shannon Nugent, PhD
- Jessica Wyse, PhD
- Michael Demidenko, BS
- Thomas Meath, MPH
- Julia Holloway, BS
- Crystal Lederhos Smith, MS

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- VA Career Development Award IK2HX001516 from the U.S. Department of Veterans Affairs Health Services Research and Development (PI: Lovejoy).
- VA Merit Review I01HX002518 from the U.S. Department of Veterans Affairs Health Services Research and Development (PI: Lovejoy).