Understanding and Addressing the Public Health Epidemic of Opioid Abuse

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Personal Disclosures

- I have seen more bad than good coming from the expanded use of opioids.
- I am concerned about the influence of conflict of interest on prescribing and on disease determination.

That said....

- I believe pain relief is very important and no patient should suffer needlessly from severe pain
 - But expectations have to be *rational* and *managed*, and risks have to be understood by both providers and patients.
 - ▼ Particularly complex given the subjective nature of pain

Three Inextricable Epidemics

Chronic Pain

- >100 million pts
- \$635 billion (APS)
 - CV (\$309 billion)
 - Cancer (\$243 billion)
 - Diabetes (\$188 billion)

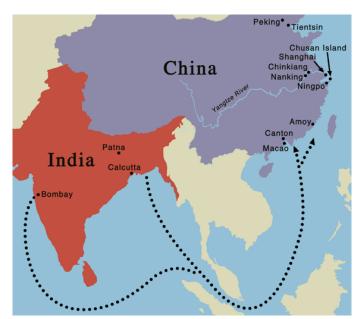
Prescription Drugs

- Addiction, Abuse
- Overdose
- >19,000 Deaths (CDC)
- \$78 billion annually

Illicit Opioids

- Addiction, Abuse
- Overdose
- Death (many)
- Cost (countless)

Gaskin, J Pain 2012;13:715-724 American Pain Society CDC Florence CS. *Med Care*. 2016;54:901.



Thou hast the keys of Paradise, oh just, subtle, and mighty opium!

Thomas De Quincey, Confessions of an English Opium-Eater, 1821

Lucrative trade



Opium den

First Opium War: 1839–1842 Second Opium War: 1856–1860



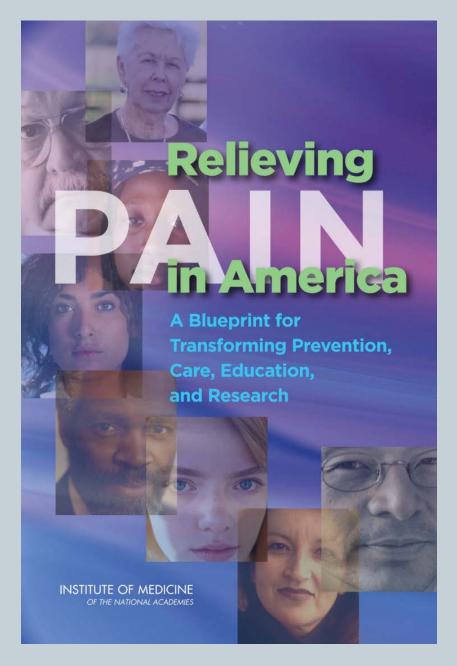
Opium Wars



- Harrison Narcotic Act, 1914
 - Cannot use opioids to treat addiction
- Controlled Substance Act, 1970
 - Set up Schedules I-V for DEA and FDA
- Narcotic Addict Treatment Act (NATA), 1974
 - Created methadone maintenance treatment programs
- Drug Addiction Treatment Act of 2000 (DATA)
 - Established buprenorphine programs
- White House National Drug Control Strategy
 - Annual review of Prescription Drug Abuse Action Plan
- The Comprehensive Addiction and Recovery Act of 2016
 - Signed by the President on July 22, 2016

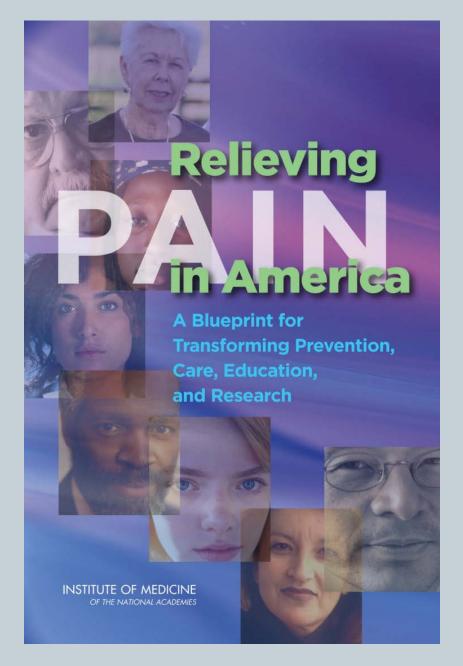
Chronic pain affects 116 million people in the US

- o 37% of the US population
- 47% if children are removed from the calculation

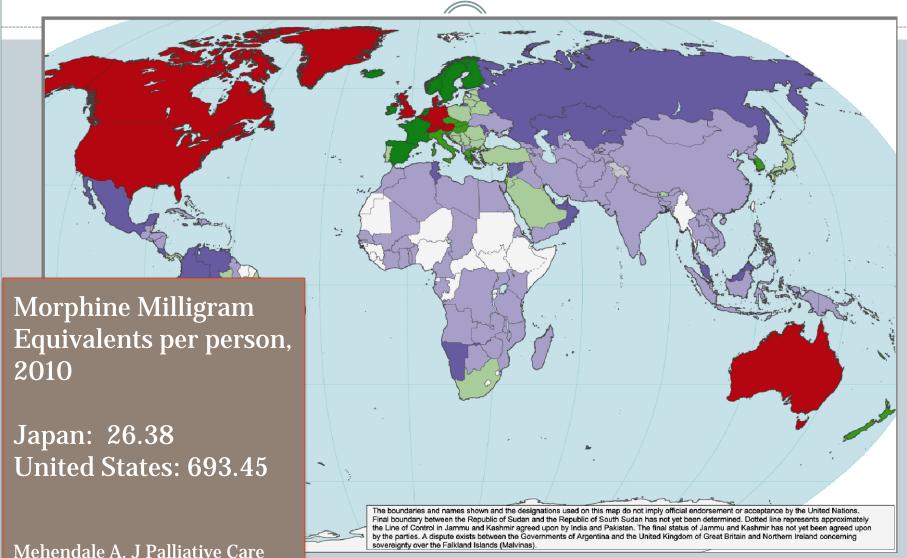


Pain is woefully undertreated, despite...

- Dozens of approved medications
- The 5th vital sign (Joint Commission)
- Patient satisfaction scores (Centers for Medicare & Medicaid Services)



"The US accounts for 4% of the world's population but uses 80% of its prescription opioid"



Mehendale A. J Palliative Care Med 2013:3: 151-3

International Narcotics Control Board for the UN; 2012

38 percent of Americans use **prescription painkillers**



31 percent of Americans use **tobacco products**



Source: SAMHSA

WAPO.ST/WONKBLOG

Icons by Schmidt Sergey and Majo Puterka, The Noun Project

The New Opium War: Individual Patients versus Public Health

- Create a demand for opioid analgesics despite limited evidence of their safety or effectiveness
 - Especially chronic pain syndromes
- Convince regulatory agencies that they should promote aggressive pain relief
 - O Use words like "oligoanalgesia" and "opiophobia"
- Convince doctors that these drugs are safe and effective long-term (they are not)
 - o "If your pain is so bad, you can't get addicted"

"Proof that addiction is rare in pain patients"

- Porter and Jick
- NEJM 1980
- 11,882 patients
- Boston Collaborative Drug Program

"Proof that addiction is rare in pain patients"

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- NEJM 1980
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ADDICTION RARE IN PATIENTS TREATED WITH NARCOTICS

To the Editor: Recently, we examined our current files to determine the incidence of narcotic addiction in 39,946 hospitalized medical patients¹ who were monitored consecutively. Although there were 11,882 patients who received at least one narcotic preparation, there were only four cases of reasonably well documented addiction in patients who had no history of addiction. The addiction was considered major in only one instance. The drugs implicated were meperidine in two patients,² Percodan in one, and hydromorphone in one. We conclude that despite widespread use of narcotic drugs in hospitals, the development of addiction is rare inmedical patients with no history of addiction.

JANE PORTER
HERSHEL JICK, M.D.
Boston Collaborative Drug
Surveillance Program
Boston University Medical Center

Waltham, MA 02154

- Jick H, Miettinen OS, Shapiro S, Lewis GP, Siskind Y, Slone D. Comprehensive drug surveillance. JAMA. 1970; 213:1455-60.
- Miller RR, Jick H. Clinical effects of meperidine in hospitalized medical patients. J Clin Pharmacol. 1978; 18:180-8.

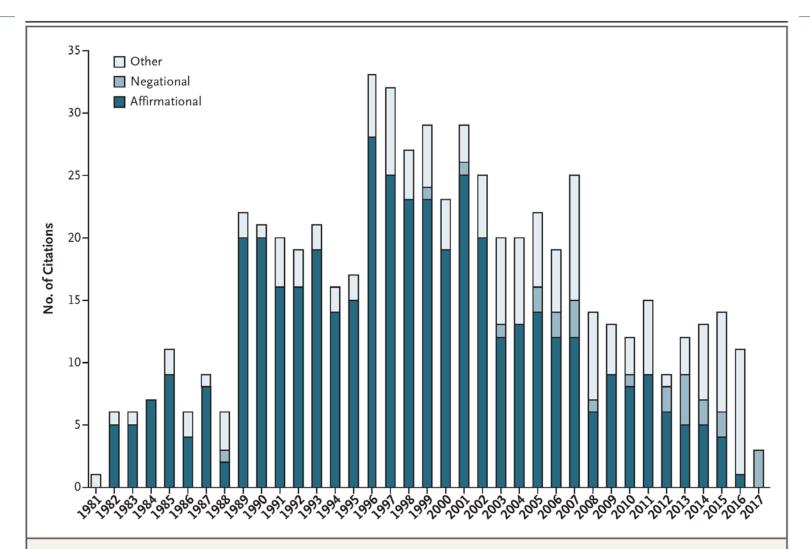
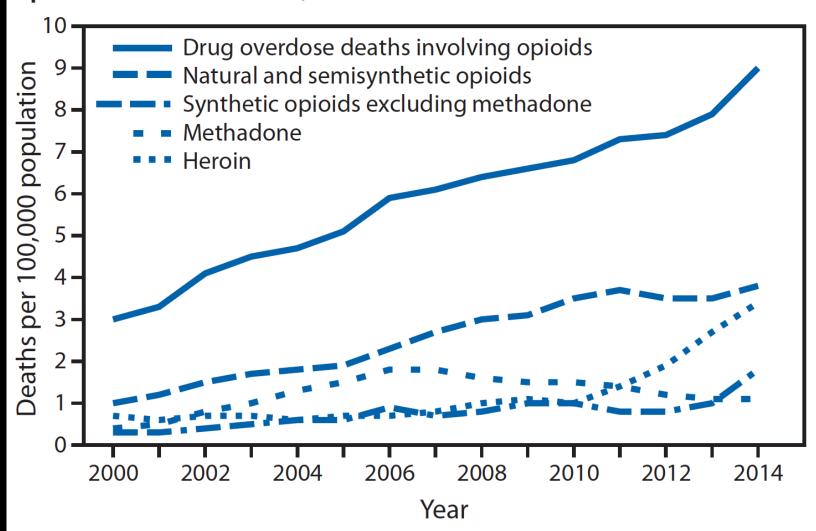


Figure 1. Number and Type of Citations of the 1980 Letter, According to Year.

Shown are number of citations of a 1980 letter to the *Journal* in which the correspondents claimed that opioid therapy rarely resulted in addiction. The citations are categorized according to whether the authors of the articles affirmed or negated the correspondents' conclusion about opioids. Details about "other" citation categories are provided in Section 2 in the Supplementary Appendix.

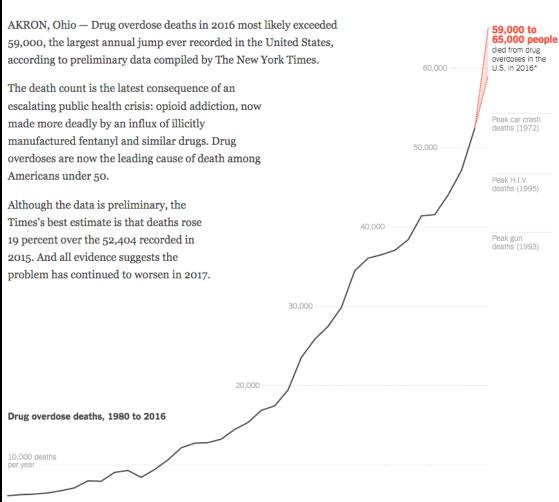
FIGURE 2. Drug overdose deaths* involving opioids,^{†,§} by type of opioid[¶] — United States, 2000–2014



Drug Deaths in America Are Rising Faster Than Ever

By JOSH KATZ JUNE 5, 2017

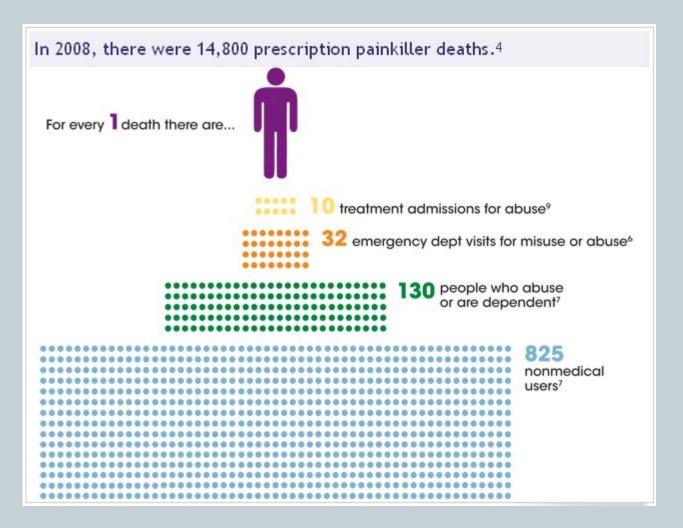
New data compiled from hundreds of health agencies reveals the extent of the drug overdose epidemic last year.



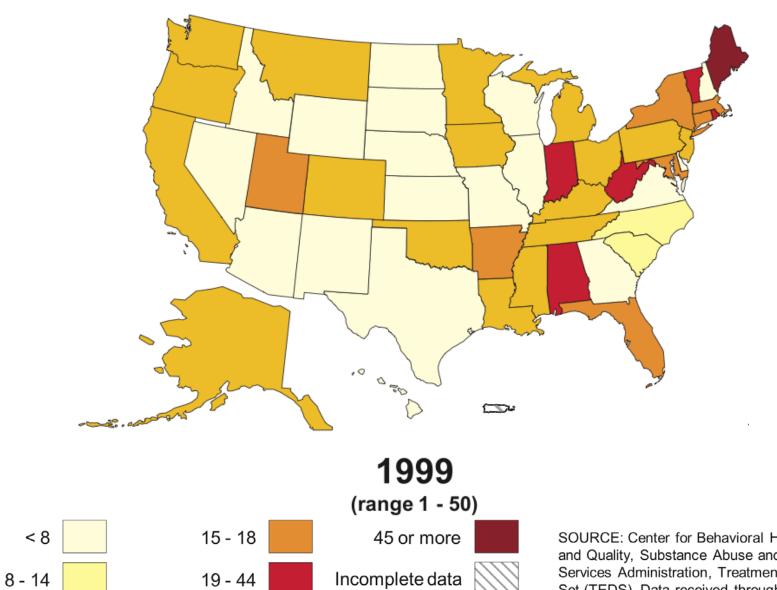
The New York Times

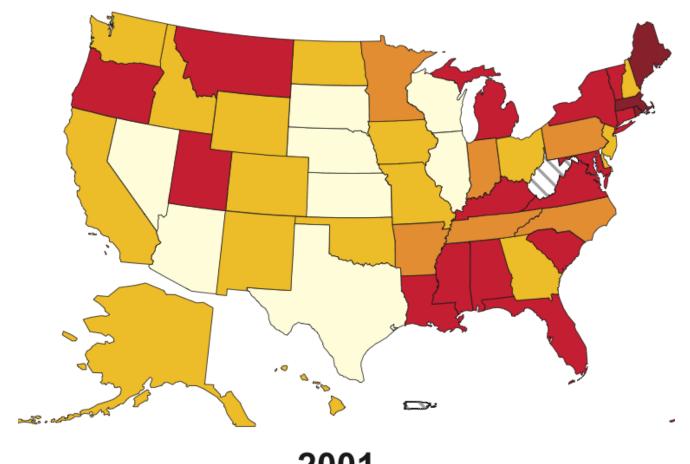
| 1980 | '85 | '90 | '95 | '00 | '05 | '10 | '15 | *Estimate based on preliminary data

Public Health Impact Death Is The Tip Of The iceberg



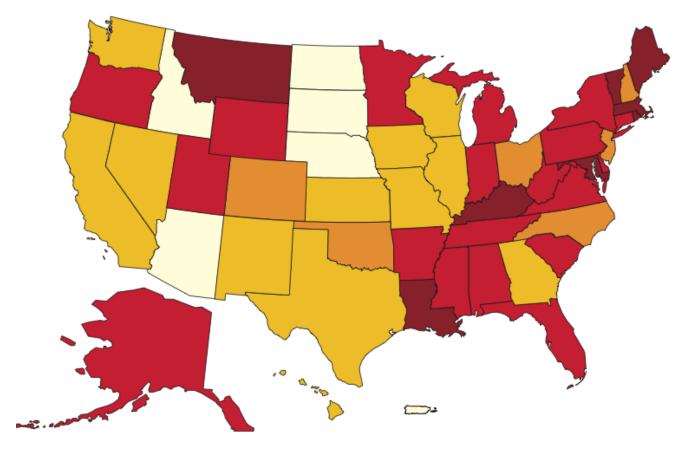
Treatment admissions are for primary use of opioids from Treatment Exposure Data set
Emergency department (ED) visits are from DAWN, Drug Abuse Warning Network, https://dawninfo.samhsa.gov/default.asp
Abuse/dependence and nonmedical use in the past month are from the National Survey on Drug Use and Health





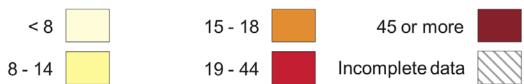
2001 (range 1 – 71)

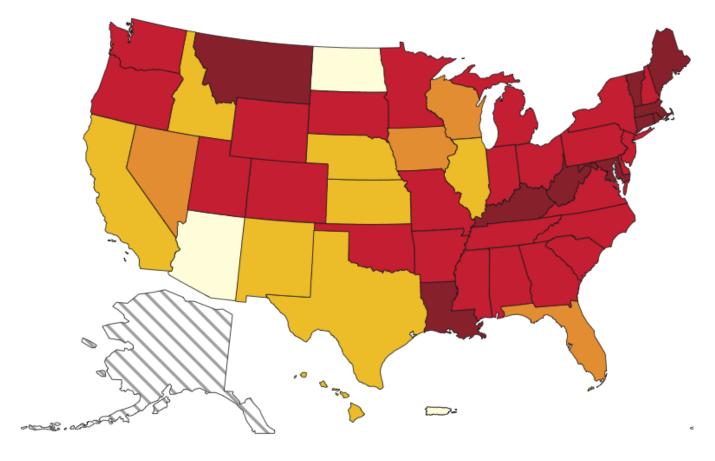
< 8
 15 - 18
 45 or more
 8 - 14
 19 - 44
 Incomplete data





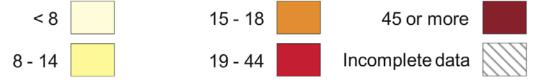
(range 2 - 139)

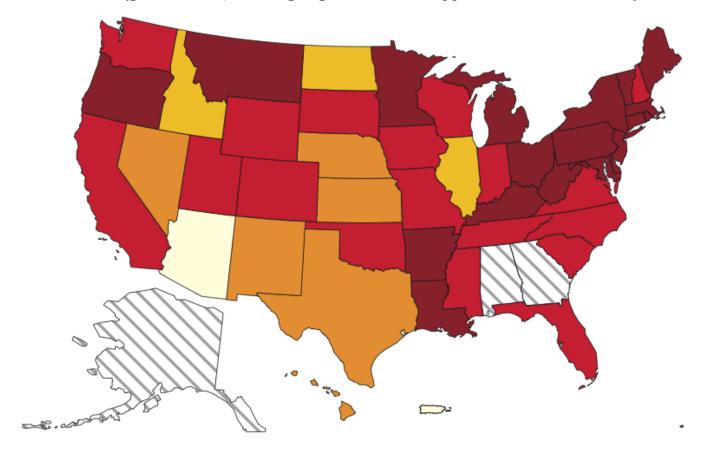




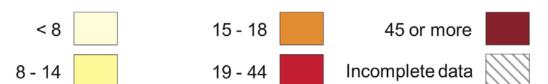


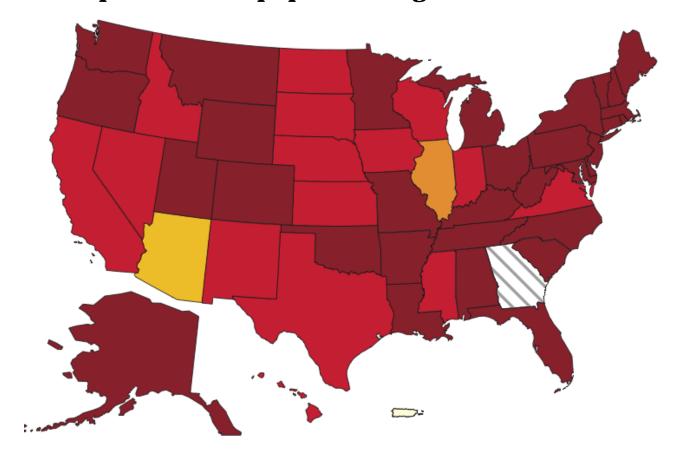
(range 0 - 214)



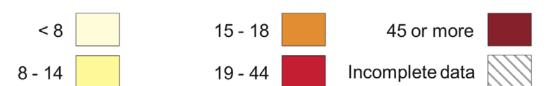






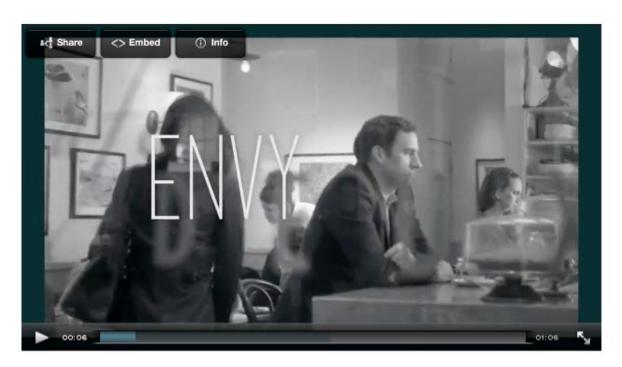


2009 (range 1 – 379)



Everyone is talking about the weird constipation and diarrhea ads that aired during the Super Bowl





It was somewhat surprising — among the sodas, and cars, and big name consumer goods brands — to see an ad about constipation airing during the Super Bowl this year. And then to see another referencing diarrhea!

"Oxy" euphoria

- Oxycodone, fentanyl, hydromorphone, and morphine bind the mu-1 opioid receptor
 - Pain relief, but also euphoria
- Lipid solubility, receptor specificity, binding affinity

Why isnt heroin legal?

or

Is oxy just legal heroin?*

(diacetyl morphine)

Morphine

Oxycodone

*Okie S. N Engl J Med 2010; 363:1981-1985

Long-term Analgesic Use After Low-Risk Surgery

A Retrospective Cohort Study

Asim Alam, MD; Tara Gomes, MHSc; Hong Zheng, MSc; Muhammad M. Mamdani, PharmD, MA, MPH; David N. Juurlink. MD. PhD: Chaim M. Bell. MD. PhD

Background: This study evaluated the risk of longterm analgesic use after low-risk surgery in older adults not previously prescribed analgesics.

Methods: We conducted a retrospective cohort study using linked, population-based administrative data in Ontario, Canada, from April 1, 1997, through December 31, 2008. We identified Ontario residents 66 years and older who were

to 30 145 patients (7.7%) at 1 year from surgery. An increase in the use of oxycodone was found during this time (from 5.4% within 7 days to 15.9% at 1 year). In our primary analysis, patients receiving an opioid prescription within 7 days of surgery were 44% more likely to become long-term opioid users within 1 year compared with those who received no such prescription (adjusted odds

Patients receiving an opioid prescription within 7 days of surgery were 44% more likely to become long-term opioid users within 1 year compared with those who received no such prescription (adjusted odds ratio, 1.44; 95% CI, 1.39-1.50).

Early Prescription Opioid Use for Musculoskeleta Disorders and Work Outcomes A Systematic Review of the Literature

Nancy Carnide, MSc,*† Sheilah Hogg-Johnson, PhD,*† Pierre Côté, DC, PhD,†‡
Emma Irvin, BA,* Dwayne Van Eerd, PhD,*§ Mieke Koehoorn, PhD,*||
and Andrea D. Furlan, MD, PhD*#

Objectives: Musculoskeletal disorders (MSDs) are a common source of work disability. Opioid prescribing for MSDs has been on the rise, despite a lack of data on effectiveness. The objective of this study was to conduct a systematic review to determine whether early receipt of opioids is associated with future work outcomes among workers with MSDs compared with other analgesics, no analgesics, or placebo.

Methods: MEDLINE, EMBASE, CINAHL, and CENTRAL were searched from inception to 2014 and reference lists were scanned. Studies were included if opioids were prescribed within 12 weeks of MSD onset. Eligible outcomes included absenteeism, work status.

Received for publication May 11, 2016; revised December 12, 2016; accepted October 22, 2016.

From the *Institute for Work & Health, Toronto, ON, Canada; †Dalla Lana School of Public Health; #Department of Medicine, Faculty of Medicine, University of Toronto, Toronto, ON, Canada; ‡Faculty of Health Sciences, University of Ontario Institute of Technology, Oshawa ON, Canada; §School of Public Health and Health Systems, University of Waterloo, Waterloo, ON Canada; and JSchool of Population and Public Health, Faculty of Medicine, University of British Columbia, Vancouver, BC, Canada.

receiving disability payments, and functional status. Two reviewers independently reviewed articles for relevance, risk of bias, and data extraction using standardized forms. Data synthesis using best evidence synthesis methods was planned.

Discussion: Current literature suggests that opioids provided within protection the first 12 weeks of onset of an MSD are associated with prosper longed work disability. However, the conclusions of these studies

Disc need testing in a high-quality study that addresses the method-

long cological shortcomings identified in the current review.

Key Words: opioids, musculoskeletal disorders, work outcomes, systematic review, risk of bias

(Clin J Pain 2017;33:647-658)

SPECIAL ARTICLE

Opioid-Prescribing Patterns of Emergency Physicians and Risk of Long-Term Use

Michael L. Barnett, M.D., Andrew R. Olenski, B.S., and Anupam B. Jena, M.D., Ph.D.

ABSTRACT

BACKGROUND

Increasing overuse of opioids in the United States may be driven in part by physician prescribing. However, the extent to which individual physicians vary in opioid prescribing and the implications of that variation for long-term opioid use and adverse outcomes in patients are unknown.

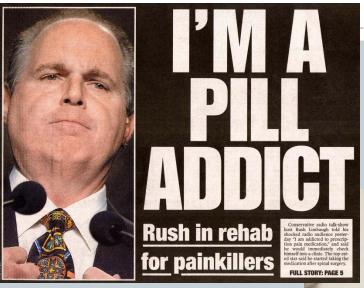
METHOD

We performed a retrospective analysis involving Medicare beneficiaries who had an index emergency department visit in the period from 2008 through 2011 and had not received prescriptions for opioids within 6 months before that visit. After identifying the emergency physicians within a hospital who cared for the patients, we categorized the physicians as being high-intensity or low-intensity opioid prescrib-

CONCLUSIONS

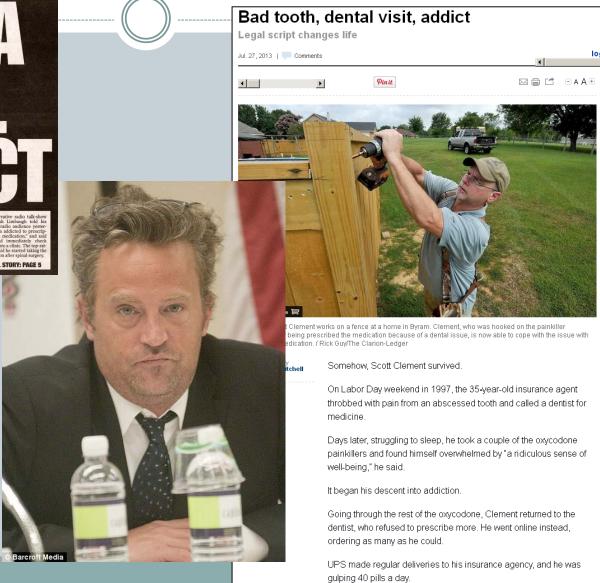
Wide variation in rates of opioid prescribing existed among physicians practicing within the same emergency department, and rates of long-term opioid use were increased among patients who had not previously received opioids and received treatment from high-intensity opioid prescribers. (Funded by the National Institutes of Health.)

Prescription for Addiction

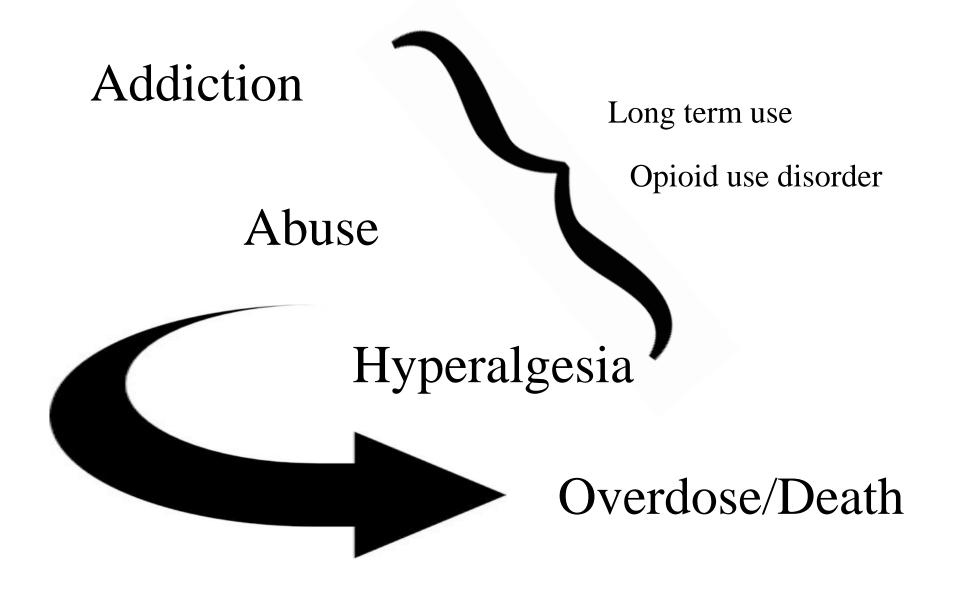


Rush Limbaugh Conservative Radio Host

> Matthew Perry "Friends"



Consequences of opioid prescribing

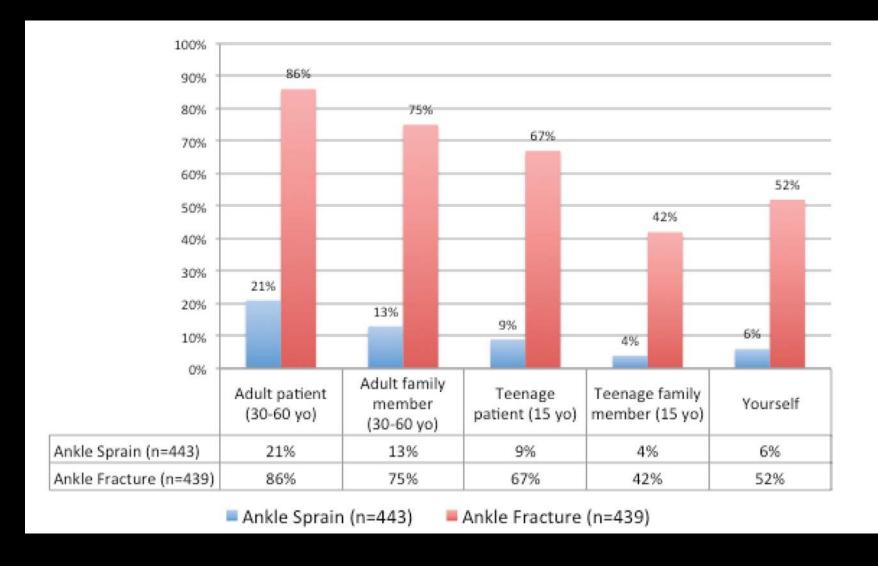


An Epidemic of Iatrogenic Addiction

The Best Way To Treat Opioid Addiction Is To Prevent It

You Cannot Develop Addiction Without Exposure To An Opioid

Keep Opioid Naïve Patients Opioid Naïve



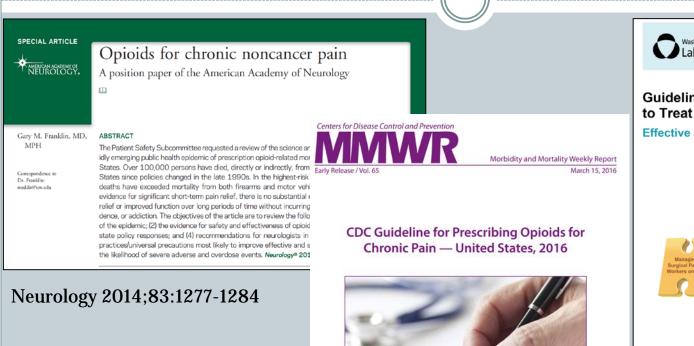


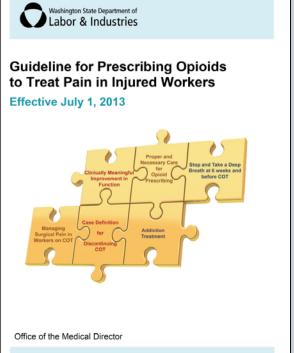
Would you give your child HEROIN for a sports injury?

Ask Your Doctor How Prescription Drugs Can Lead to Heroin Abuse.

BEFORE THEY PRESCRIBE - YOU DECIDE.

Strategies to Curb the Prescription Opioid Problem Pain Guidelines





Long-term opioid use often begins with treatment of acute pain. When opioids are used for acute pain, clinicians should prescribe the lowest effective dose of immediate-release opioids and should prescribe no greater quantity than needed for the expected duration of pain severe enough to require opioids. Three days or less will often be sufficient; more than seven days will rarely be needed.

New York City Department of Health and Mental Hygiene

New York City Emergency Department Discharge Opioid Prescribing Guidelines

Note: These guidelines do not replace clinical judgment in the appropriate care of patients nor are they intended to provide guidance on the management of patients while in the ED.

In the management of patients with acute or chronic noncancer pain discharged from an emergency department,

- Consider short-acting opioid analgesics for the treatment of acute pain only when the severity of the pain is reasonably assumed to warrant their use.
- Start with the lowest possible effective dose if opioid analgesics are considered for the management of pain.
- Prescribe no more than a short course of opioid analgesics for acute pain. Most patients require no more than three days.
- 4. To assess for opioid misuse or addiction, use targeted history or validated screening tools. Prescribers can also access the New York State Controlled Substance Information (CSI) on Dispensed Prescriptions Program for information on patients' controlled substance prescription history.
- Avoid initiating treatment with long-acting or extended-release opioid analgesics.

- Address exacerbations of chronic or recurrent pain conditions with nonopioid analgesics, nonpharmacological therapies, and/or referral to specialists for follow-up, all as clinically appropriate.
- Avoid when possible prescribing opioid analgesics to patients currently taking benzodiazepines and/or other opioids. Consider other risk factors for consequential respiratory depression.
- Attempt to confirm with the treating physician the validity of lost, stolen, or destroyed prescriptions. If considered appropriate, replace the prescription only with a one-to two-day supply.
- Provide information about opioid analgesics to patients receiving a prescription, such as the risks of overdose and dependence/ addiction, as well as safe storage and proper disposal of unused medications.

PRESCRIBING OPIOID PAINKILLERS IN THE EMERGENCY DEPARTMENT People sometimes misuse opioid painkillers, either by taking them in ways they weren't prescribed or by taking someone else's prescription. In New York City, one in four overdose deaths involve opioid painkillers. Our emergency department will only provide pain relief options that are safe and appropriate. **FOR YOUR SAFETY, WE DO NOT:** * Prescribe long-acting opioid painkillers. Such as oxycodone (OxyContin®), morphine (MSContin®), fentanyl patches (Duragesic®) or methadone. * Prescribe more than a short course of opioid painkillers. * Refill lost, stolen or destroyed prescriptions. Prescription opioid painkillers can be just as dangerous as illegal drugs. 100 · Opioid painkillers can cause confusion, drowsiness and increased sensitivity to pain. People can become dependent on or addicted to opioid painkillers. An overdose of opioid painkillers can cause a person to stop breathing and die Keep your prescription opioid painkillers safe! Keep opioid painkillers in their original labeled containers. Keep opioid painkillers out of sight and out of reach of children, preferably in a locked cabinet or on a high shelf. · Get rid of opioid painkillers you are no longer using by flushing them down the toilet.





ANDREW M. CUOMO Governor July 15, 2016

HOWARD A. ZUCKER, M.D., J.D. Commissioner

SALLY DRESLIN, M.S., R.N. **Executive Deputy Commissioner**

New Legislation Enacted to Limit Initial Opioid Prescribing to a 7 Day Supply for Acute Pain

TO FURTHER REDUCE OVERPRESCRIBING OF OPIOID MEDICATIONS.

EFFECTIVE JULY 22, 2016, INITIAL C LIMITED TO A 7 DAY SUPPLY PER N supply of an opioid medication for acute resulting from disease, accidental or int Louise Esola practitioner reasonably expects to last c 2/17/2017 1:42:00 PM NOT include prescribing for chronic pa hospice or other end-of-life care, or pair < practices. Upon any subsequent consul issue, in accordance with existing rules or new prescription for an opioid.

SECTION 3331, 5. (b), (c). A practition New Jersey's 5-day opioid prescription bill signed into law



Prescription Drug Benefits

Prescription Drug Management

In a little less than 90 days doctors, in New Jersey who want to prescribe opioids to their patients for the first time will only be able to prescribe them for five days.

New Jersey Gov. Chris Christie on Wednesday signed into law Assembly Bill 3, which introduced sweeping

changes in opioid prescribing and addiction treatment. Workers compensation experts have stated that such laws governing the timing and amount of prescription will apply to all licensed doctors, regardless of payer.

The New Jersey law mandates the shortest time limit in the United States, according to Mark Pew, senior vice president at Prium, a Duluth, Georgia-based medical cost management firm.



 \bowtie

Pilot program aims to help opioid use

California closed drug forn spotlight on opioids

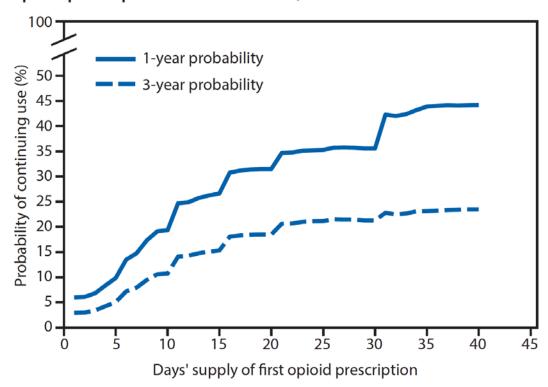
Opioids create dilemma for

New Jersey may limit opio

Tidal wave of opioid-relate



FIGURE 1. One- and 3-year probabilities of continued opioid use among opioid-naïve patients, by number of days' supply* of the first opioid prescription — United States, 2006–2015



^{*} Days' supply of the first prescription is expressed in days (1–40) in 1-day increments. If a patient had multiple prescriptions on the first day, the prescription with the longest days' supply was considered the first prescription.

NJ Prescription Monitoring Program (NJPMP)

New Jersey Division of Consumer Affairs







DCA HOME NJPMP INFO PRESCRIBERS / PHARMACISTS ENFORCEMENT TREATMENT MEDIA BE AWARXE PROJECT MEDICINE DROP



Practitioners: New Registration

Information about the New NJ PMP Law

Proposed regulations for the Prescription Monitoring Program were published in the NJ Register on 11/16/15.

(View Proposed Regulations)

For too many New Jerseyans, addiction begins in the medicine cabinet.

Please be advised that beginning March 1, 2015, pharmacies will be required to report information to the NJPMP on a daily basis using the ASAP 4.2 format. Prescriptions must be reported to the database no more than one (1) business day after the date the controlled substance was dispensed. In order to help facilitate any software conversion that may be necessary, the NJPMP will defer enforcement until September 1, 2015.

The New Jersey Prescription Monitoring Program (NJPMP) is an important component of the New Jersey Division of Consumer Affairs' initiative to halt the abuse and diversion of prescription drugs.



How many Americans die from an overdose caused by prescription painkiller abuse every day?



How many teenagers out of 5 mistakenly believe prescription drugs are "much safer" than illegal drugs?



Is the number of U.S. teenagers and adults who abuse prescription drugs greater than those who use cocaine,



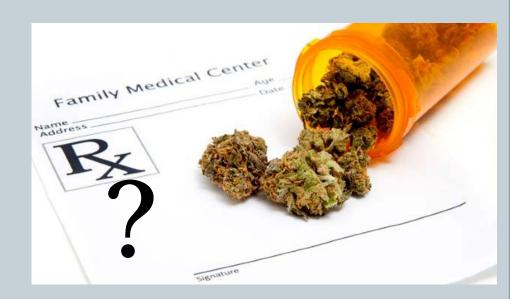


Strategies to Curb the Prescription Opioid Problem Action/Reaction for Aberrant Use

- Counseling for compliance
- Taper and discontinue if concerns arise
 - Exit strategy
- Refer for addiction treatment
 - Clinicians should offer or arrange evidence-based treatment (usually medication-assisted treatment with buprenorphine or methadone in combination with behavioral therapies) for patients with opioid use disorder. [CDC Guidelines 2016]

Some Alternatives to Opioids

- Rest, Ice, Compression, Elevation
- Immobilization
- NSAIDs, APAP (not tramadol)
- Antidepressants
- Anticonvulsants
- Exercise
- Weight loss
- Yoga
- Stress reduction, meditation
- Guided imagry
- Cognitive behavioral therapy
- Herbal medicine
- Aromatherapy
- Homeopathy
- Physical therapy
- TENS
- Anesthetic blocks
- Accupuncture
- Biofeedback



Intravenous Subdissociative-Dose Ketamine Versus Morphine for Analgesia in the Emergency Department: A Randomized Controlled Trial

Sergey Motov, MD*; Bradley Rockoff, MD; Victor Cohen, PharmD; Illya Pushkar, MPH; Antonios Likourezos, MA, MPH; Courtney McKay, PharmD; Emil Soleyman-Zomalan, MD; Peter Homel, PhD; Victoria Terentiev, BA; Christian Fromm, MD



Contents lists available at ScienceDirect

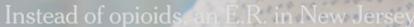
American Journal of Emergency Medicine

journal homepage: www.elsevier.com/locate/ajem



CrossMark

Ultrasound-guided serratus plane block for ED rib fracture pain control ☆,☆☆



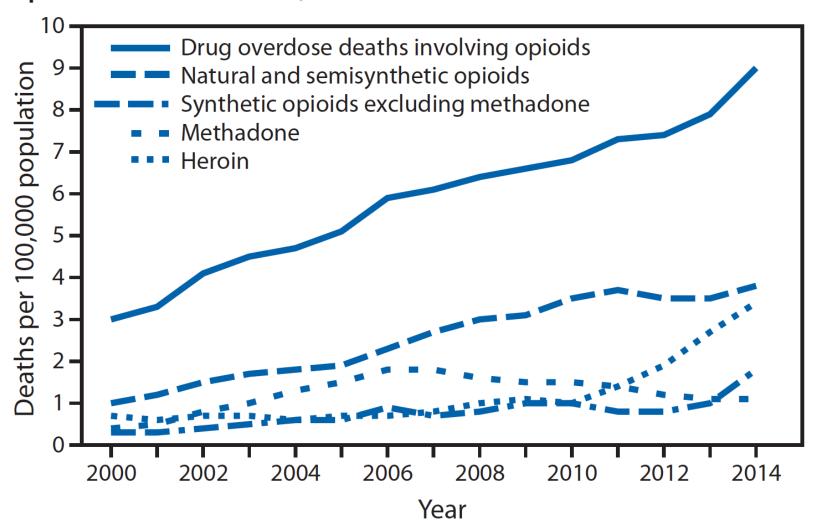
now alter inject

The Use of Intravenous Lidocaine for Renal Colic in the Emergency Department

Annals of Pharmacotherapy 2016, Vol. 50(3) 242 © The Author(s) 2016 Reprints and permissions: sagepub.com/journalsPermissions.nav DOI: 10.1177/1060028015625661 aop.sagepub.com



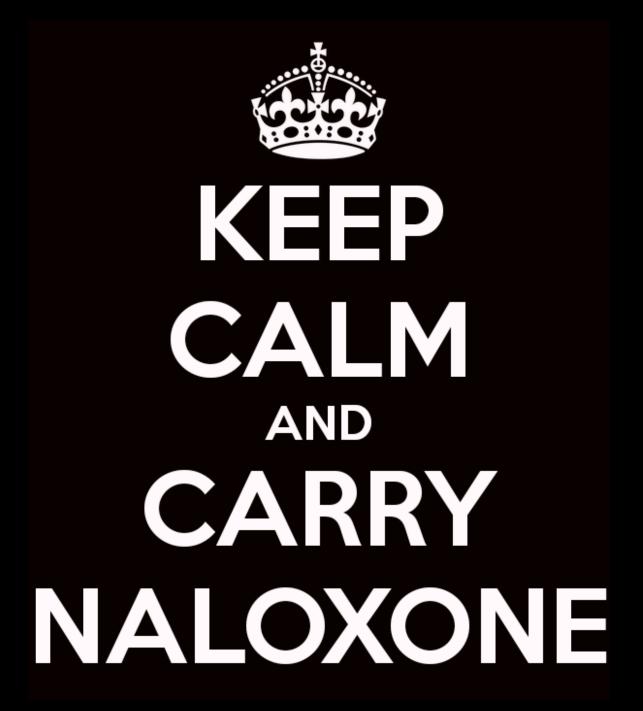
FIGURE 2. Drug overdose deaths* involving opioids,^{†,§} by type of opioid[¶] — United States, 2000–2014



Fentanyl and Analogs

- 80-100 fold more potent than morphine
 - o 35-50 fold more potent than heroin
- Initially derived from pharmaceutical sources
- Currently largely nonpharmaceutical (NPF)
 - Many analogues





Pain is a vital sign

OTHER OPIOID MYTHS

TAMPER RESISTANT FORMULATIONS ARE

There is an epidemic of untreated pain

Pseudoaddiction exists

The unit is better to over treat than to all is "pain score zero"

Goal is "pain score zero"

Opioids are effective in chronic non-cancer pain

We can educate our way out of the crisis

Always assume a patient claiming pain is in pain

High dose opioids are safe
if opioid tolerant

We are responsible to help with the solution...

- Prescribe as if for your family or friend
 - o PDMP
- Keep opioid naïve patients opioid naïve (when possible)
 - Prevention is the key to reducing the toll of addiction.
- Integrate the risks of addiction and overdose into your opioid prescribing
 - Our patients should hear about these risks
- Rationalize expectations for pain relief
- Recognize symptoms or signs of aberrant drug use and do something

Thank you.

Questions?
Comments?
Concerns?

Feel free to email me at: lewis.nelson@rutgers.edu