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Instituting an Opioid QA Program in Your Emergency Department

Presenter

Scott Weiner, MD, MPH

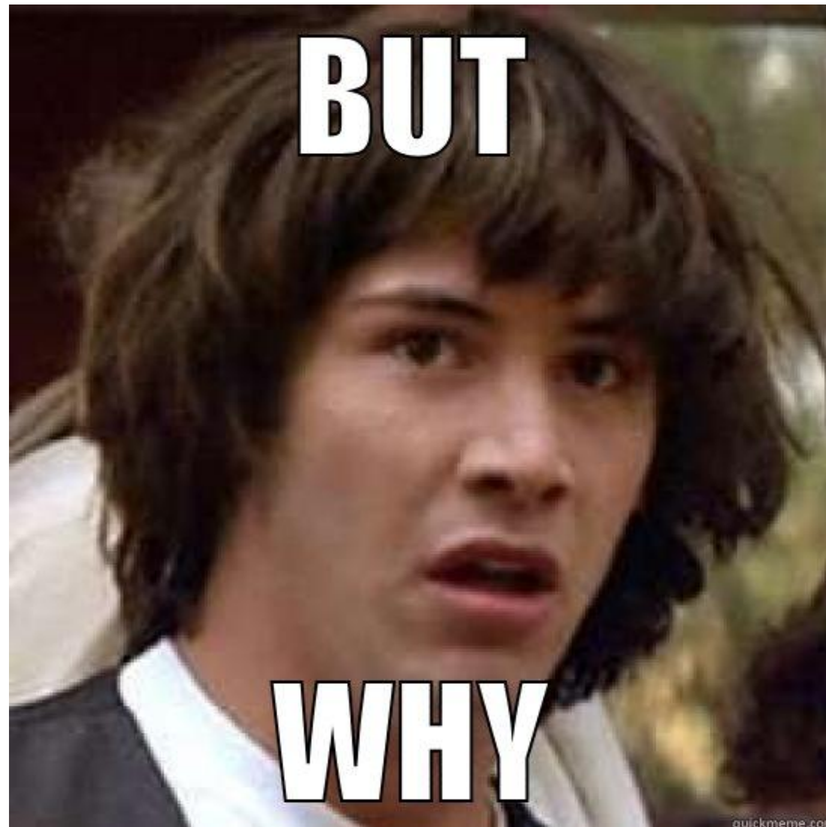
Disclosures & Disclaimer

Scientific Advisory Board:
General Emergency Medical Supplies, Corp
Epidemic Solutions, LLC

Grant Funding:
Yale/APF, Pew, MITRE

Presenter- Scott G. Weiner, MD, MPH

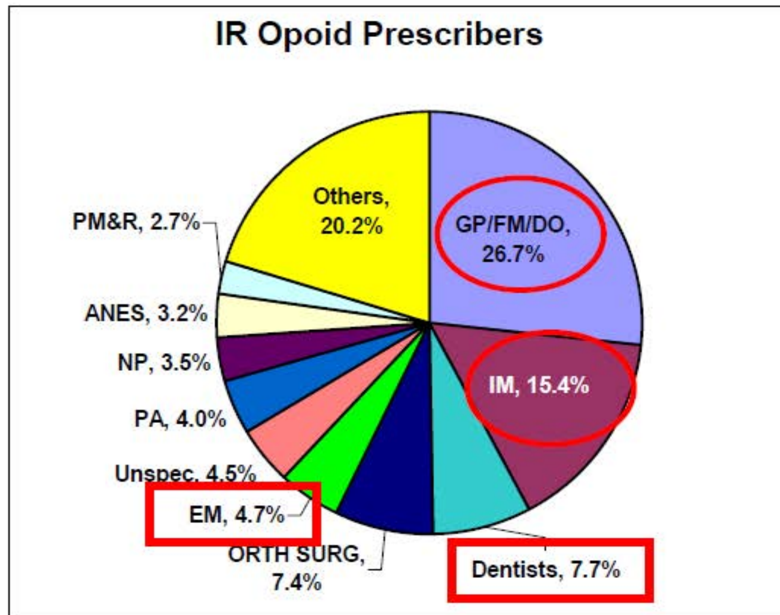
Why Introduce an Opioid QA Program?

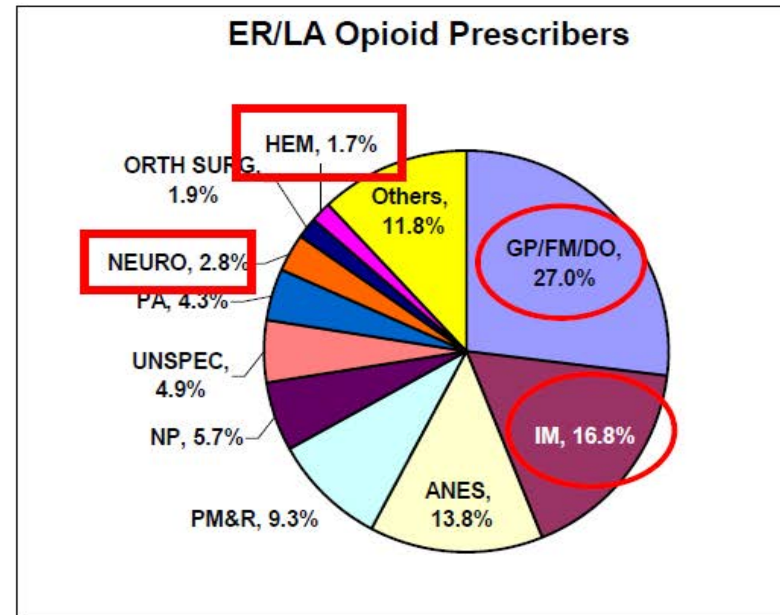


FDA U.S. Food and Drug Administration
Protecting and Promoting Public Health
www.fda.gov

Total number of prescriptions dispensed in the U.S. by top 10 prescribing specialties for IR and ER/LA opioids, Year 2009

SDI: Vector One®: National. Extracted June 2010.





- GP/FM/DO, and IM were top 2 prescribers for IR and ER/LA opioids
- IR opioid prescribers:
- Dentists and EM specialists accounted for about 18 million and 11 million IR dispensed prescriptions

Opioid Prescriptions by Specialty in Ohio, 2010–2014

Scott G. Weiner, MD, MPH,* Olesya Baker, PhD,*
Ann F. Rodgers, MD, MPH,† Chad Garner, MS,‡
Lewis S. Nelson, MD,§ Peter W. Kreiner, PhD,¶ and
Jeremiah D. Schuur, MD, MHS*

Results. There were 56,873,719 pres
the studied opioids dispensed, for whi
(73.8%) had prescriber specialty ty
Mean number of pills per prescriptio

Table 1 Numbers of prescriptions, pills per prescription and morphine milligram equivalents per prescription, stratified by primary specialty type of the prescriber, Ohio, 2010–2014

			Pills per prescription			MMEs per prescription		
Specialty	No. of prescriptions	Percentage of prescriptions	Mean No. of pills per prescription (SD)	Median No. of pills per prescription (IQR)	Percentage of pills	Mean MMEs per prescription (SD)	Median MMEs per prescription (IQR)	Percentage of MMEs
Family medicine	12,382,570	21.8	78.3 (50.7)	60 (30–120)	26.5	850.3 (1,478.3)	450 (225–900)	25.1
Internal medicine	9,990,843	17.6	75.3 (50.2)	60 (30–100)	20.6	770.7 (1,328.5)	450 (225–900)	18.4
Other	4,317,831	7.6	40.8 (37.1)	30 (16–60)	4.8	375.5 (800.6)	150 (100–337.5)	3.9
Orthopedic surgery	3,316,383	5.8	54.4 (29.2)	50 (40–60)	4.9	456.1 (910.5)	300 (200–450)	3.6
Anesthesiology/pain	3,261,449	5.7	89.3 (44.0)	90 (60–120)	8.0	1,483.8 (1,784.4)	678 (450–1,800)	11.5
Emergency medicine	2,817,842	5.0	20.8 (19.0)	20 (12–20)	1.6	172.5 (563.0)	100 (75–135)	1.2
Specialty surgery	2,000,478	3.5	44.9 (31.3)	30 (30–60)	2.5	389.5 (721.7)	225 (150–375)	1.9
Physical medicine	1,680,579	3.0	91.2 (48.9)	90 (60–120)	4.2	1,531.8 (2,050.9)	675 (450–1,800)	6.1
Gynecology	903,273	1.6	34.7 (25.8)	30 (20–40)	0.9	307.5 (734.6)	150 (135–225)	0.7
Neurology	573,389	1.0	84.4 (49.7)	90 (50–120)	1.3	1,229.8 (1,773.9)	600 (300–1,350)	1.7
Hematology/oncology	516,596	0.9	88.2 (48.0)	90 (60–100)	1.2	1,534.4 (2,195.6)	750 (450–1,800)	1.9
Pediatrics	198,348	0.3	46.8 (42.6)	30 (16–60)	0.3	535.6 (1,120.3)	150 (90–450)	0.3
Missing	14,914,138	26.2	56.9 (48.8)	40 (20–90)	23.2	672.6 (1,438.5)	225 (100–630)	23.9

IQR = interquartile range; MME = morphine milligram equivalent.

Opioid Prescribing in a Cross Section of US Emergency Departments

Jason A. Hoppe, DO; Lewis S. Nelson, MD; Jeanmarie Perrone, MD; Scott G. Weiner, MD, MPH*; for the Prescribing Opioids Safely in the Emergency Department (POSED) Study Investigators†

*Corresponding Author. E-mail: sgweiner@partners.org, Twitter: @ScottWeinerMD.

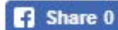
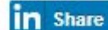
- 19 Hospitals, national sample
- 12% of all adult patient visits result in an opioid prescription
- Vast majority were oxycodone and hydrocodone, immediate release, 5 mg
- Mean number of pills was 17/prescription

Axeen, et al (Ann Emerg Med 6/2018)

- Medical Expenditure Panel Survey
- Office-based Rx = 71% in 1996 and 83% in 2012
- ED-based Rx = 7.4% in 1996 and 4.4% in 2012
- EDs = 2.4% of total morphine equivalents
- Only 0.3% ED Rx were for >100 MME per day vs. 2.6% in office setting

Emergency Medicine's Role in Prescription Opioid Abuse

By Scott G. Weiner, MD, MPH, FAAEM, FACEP | on July 15, 2015 | 5 Comments

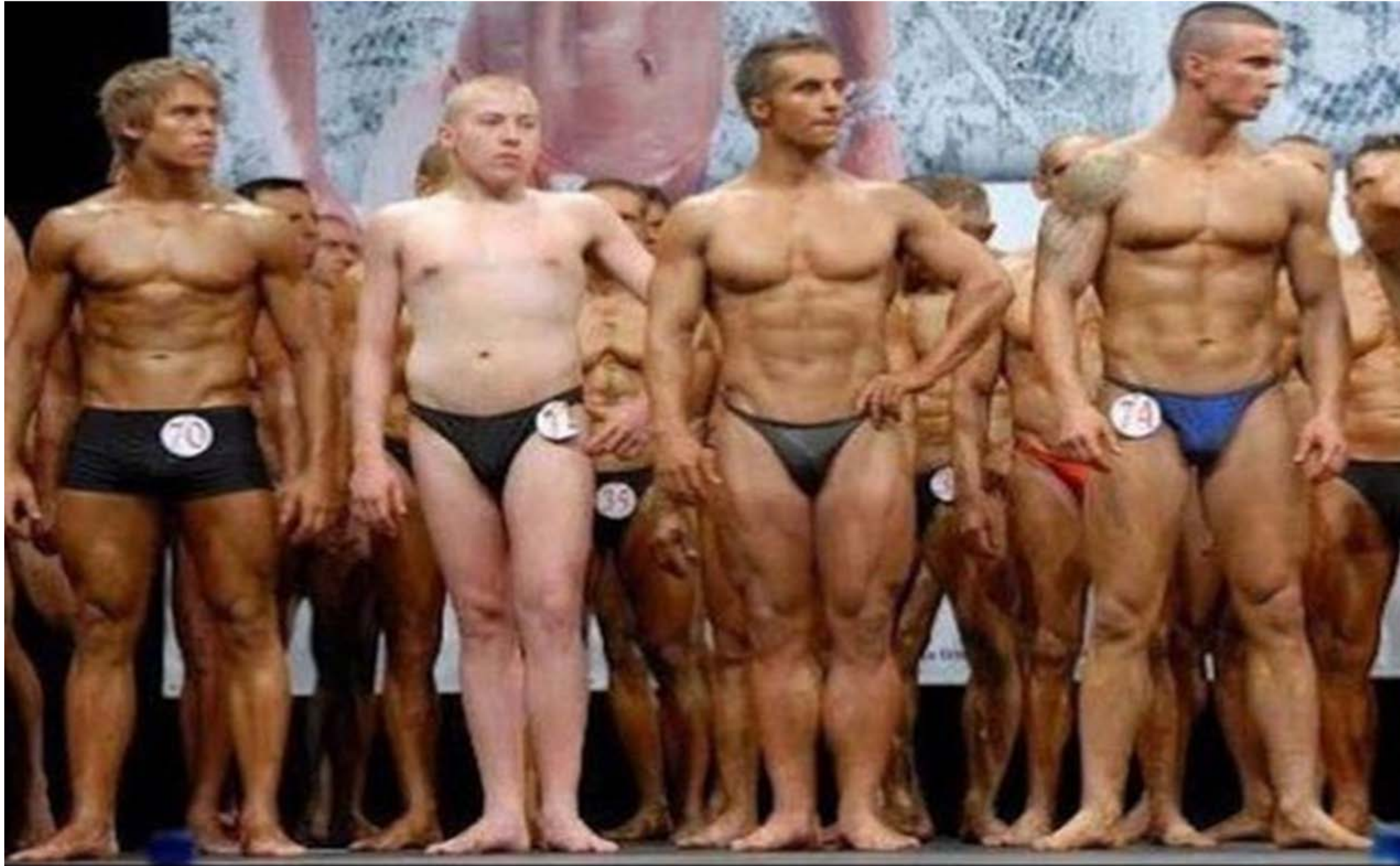
 

As a member of the board of the **Massachusetts College of Emergency Physicians**, I get the opportunity to review legislation that is put forth at the state level that would affect care of patients in the ED. Our legislative consultant brings the bills, and our group decides what position to take on the proposed legislation. This season, I was taken aback by a single-line bill, introduced by a state representative, that read: "A physician practicing in an emergency room shall not be permitted to provide to a patient seeking emergency care more than 72 hours' worth of a controlled substance as defined by this chapter."

Image Credit: © SHUTTERSTOCK.COM

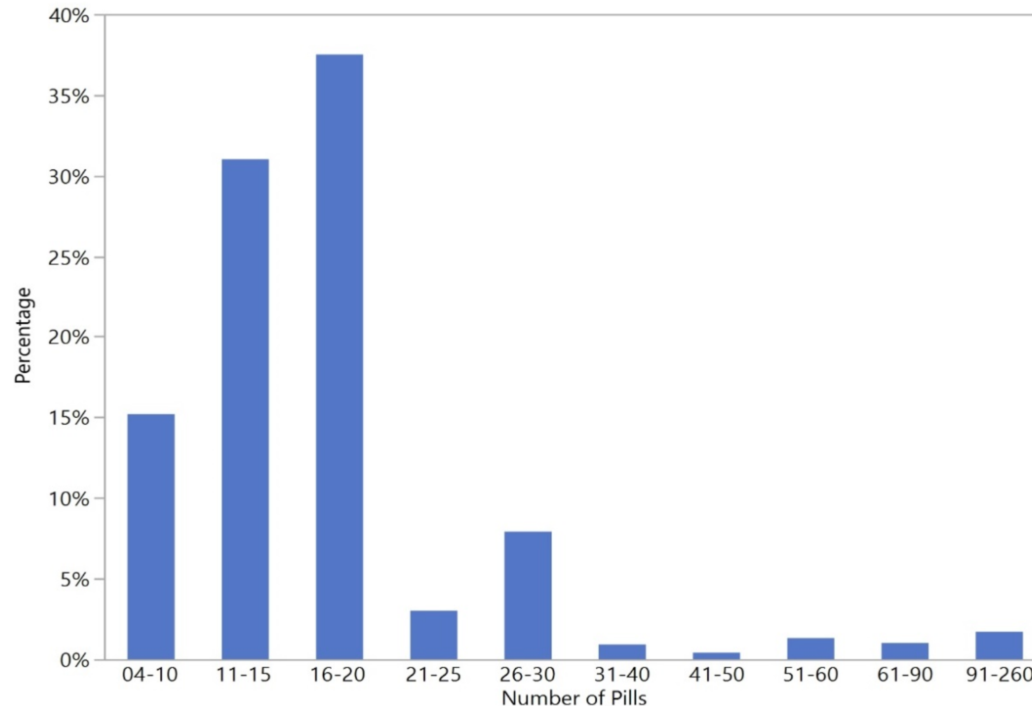
My first thought upon seeing the text was, I'll just ask my physician assistant colleagues to write opioid prescriptions for me, as they would not be excluded under the law—just another reiteration that lawmakers need education about the realities of how medicine is practiced. My second thought was, How did it come to this? How did the pendulum swing so far that legislators want to severely limit how emergency physicians write **prescriptions for pain medications**?

> *"A physician practicing in an emergency room shall not be permitted to provide to a patient seeking emergency care more than 72 hours' worth of a controlled substance as defined by this chapter."*



Ohio PDMP

- Median morphine milligram equivalent (MMEs) per prescription was 100 (IQR 75-125)
- Only 12,639 prescriptions (0.04%) were for extended release formulations



Opioid Prescribing in a Cross Section of US Emergency Departments

Jason A. Hoppe, DO; Lewis S. Nelson, MD; Jeanmarie Perrone, MD; Scott G. Weiner, MD, MPH*; for the Prescribing Opioids Safely in the Emergency Department (POSED) Study Investigators†

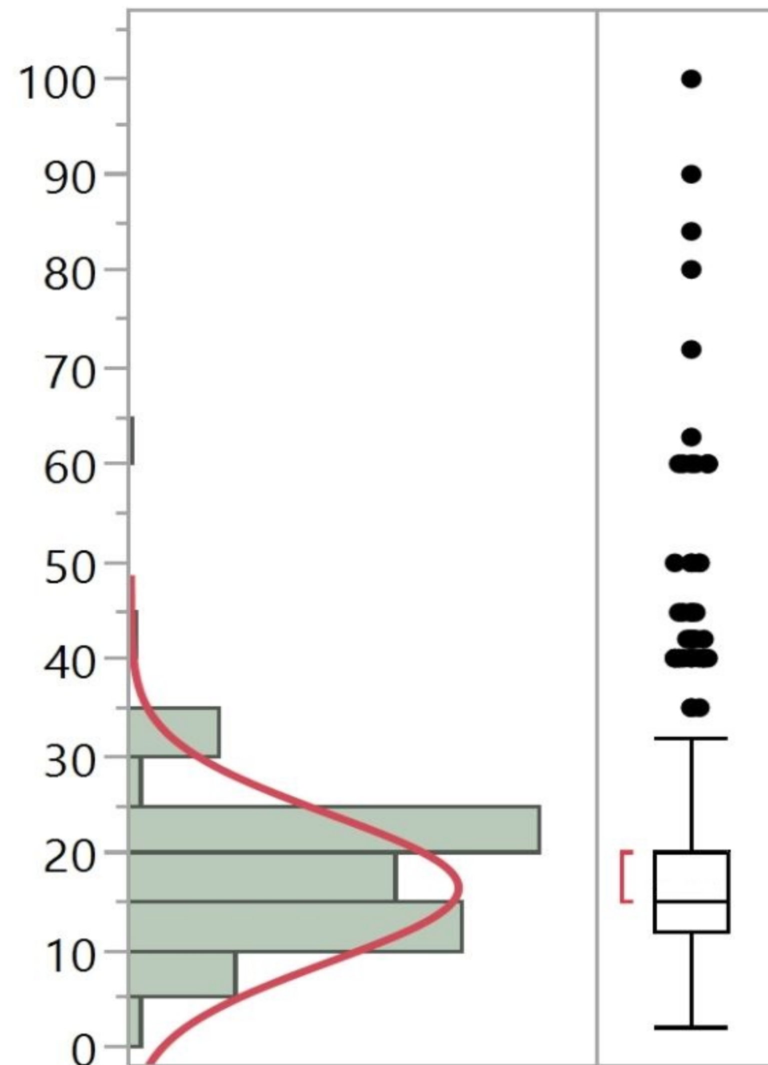
*Corresponding Author. E-mail: sgweiner@partners.org, Twitter: @ScottWeinerMD.

2012

19 hospitals

17% discharged patients got an opioid

Mean pill count 17



Opioid Prescribing in Emergency Departments

The Prevalence of Potentially Inappropriate Prescribing and Misuse

Joseph Logan, PhD, MHS, Ying Liu, PhD, Leonard Paulozzi, MD, MPH, Kun Zhang, MS, and Christopher Jones, PharmD, MPH

Objective: Emergency departments (EDs) routinely provide care for patients seeking treatment for painful conditions; however, they are also targeted by people seeking opioid analgesics for nonmedical use. This study determined the prevalence of indicators of potential ED opioid misuse and inappropriate prescription practic[...] by ED providers in a large, commercially insured, adult po[...]

Research Design and Indicators: We analyzed [...] Health MarketScan® Research Databases t[...] enrollees aged 18–64 years. Indica[...] appropriate use included opi[...] [...]y one week or more; overlapp[...] prescriptions; high daily doses [...]uivalents); long-acting/extend[...] acute pain, and overlapping LA/[...] [...]ified by sex.

Resu[...] [...]0,288 enrollees who received at least one ED op[...]ption. At least one indicator applied to 10.3% of enrolle[...].7% had high daily doses; 2.0% had opioid overlap; 1.0% had opioid-benzodiazepine overlap. Among LA/ER opioid prescriptions, 21.7% were for acute pain, and 14.6% were overlapping. Females were more likely to have at least one indicator.

Key Words: opioid ana[...] [...], prescript[...] practices

(*Med C*[...]

[...] prescription opioid analgesics, alone [...]ation with benzodiazepines, accounts fo[...] [...] proportion of prescription drug overdose fatalit[...] [...] United States,[1–4] and overdose deaths involving th[...] drugs are increasing annually.[2,5–8] Common opioid analges[...] involved in these deaths include methadone, hydrocodo[...] oxycodone, morphine, and fentanyl[1,3,9–11]; these drugs [...] prescribed for the management of acute or chronic pai[...] Benzodiazepines, such as diazepam and alprazolam, co[...]monly involved in overdoses, are used as antianxiety age[...] sedative[...]

A[...] seek ca[...] opioid a[...] are writ[...] targeted [...] use.[16] [...] algesic nonmedically in 2010, 21% said an ED physician [...]

In some instances, the prescribing of opioid analgesics in EDs might not be optimal in terms of minimizing the risk of their misuse. Guidelines for the cautious use of opioid analgesics in EDs and timely data from prescription drug monitoring programs could help EDs treat patients with pain while reducing the risk of nonmedical use.

Logan J, Liu Y, Paulozzi L, Zhang K, Jones C. Opioid prescribing in emergency departments: the prevalence of potentially inappropriate prescribing a[...] misuse. Med Care. 2013 Aug;51(8):646-53.

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.

- Compared low-intensity (lowest quartile) to high-intensity (highest quartile) EPs within each department
- Medicare patients

Long-term use OR was 1.3 for patients treated by high-intensity prescribers

- Wide variation in prescribing rates (7.3% low, 24.1% high)

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Opioid Prescribing for Opioid-Naive Patients in Emergency Departments and Other Settings: Characteristics of Prescriptions and Association With Long-Term Use

Molly Moore Jeffery, PhD*; W. Michael Hooten, MD; Erik P. Hess, MD, MS; Ellen R. Meara, PhD; Joseph S. Ross, MD, MHS; Henry J. Henk, PhD; Bjug Borgundvaag, PhD, MD; Nilay D. Shah, PhD; M. Fernanda Bellolio, MD, MS

*Corresponding Author. E-mail: jeffery.molly@mayo.edu, Twitter: @mollyjeffery.

Ann Emerg Med, March 2018
OptumLabs 2009-2015
5.2 million rx – opioid rx from ED were of lesser dose and duration and half as likely to lead to long-term use as other settings

	Commercial		Aged Medicare		Disabled Medicare	
Outcome	Adjusted Proportion, %	(95% CI)	Adjusted Proportion, %	(95% CI)	Adjusted Proportion, %	(95% CI)
Prescription for >3 days' supply						
Non-ED	65.9	(65.9–66.0)	74.6	(74.4–74.7)	76.8	(76.4–77.1)
Unknown	47.2	(47.1–47.3)	56.3	(56.0–56.6)	61.9	(61.1–62.7)
ED	37.0	(36.9–37.1)	41.6	(41.3–41.9)	36.7	(36.0–37.5)
Prescription for >7 days' supply						
Non-ED	19.1	(19.0–19.1)	36.7	(36.5–36.8)	42.5	(42.1–42.9)
Unknown	7.7	(7.7–7.8)	20.4	(20.1–20.7)	28.2	(27.4–28.9)
ED	3.1	(3.1–3.1)	4.5	(4.3–4.6)	3.9	(3.6–4.2)

Sometimes We Do Start the Fire…

Emergency Department Prescription Opioids as an Initial Exposure Preceding Addiction

Megan M. Butler, BS; Rachel M. Ancona, BS; Gillian A. Beauchamp, MD; Cyrus K. Yamin, MD; Erin L. Winstanley, PhD; Kimberly W. Hart, MA; Andrew H. Ruffner, MA, LSW; Shawn W. Ryan, MD, MBA; Richard J. Ryan, MD; Christopher J. Lindsell, PhD; Michael S. Lyons, MD, MPH*

*Corresponding Author. E-mail: lyonsme@ucmail.uc.edu.

59 patients reporting heroin or nonmedical opioid use
35 (59%) reported first exposure was a legitimate prescription

For 10 of 35 (29%) the prescription came from the ED

"Although short-term opioid administration by EPs is unlikely to cause addiction by itself, ED opioid prescriptions may contribute to the development of addiction in some patients."

PAIN MANAGEMENT AND SEDATION/ORIGINAL RESEARCH

Association of Emergency Department Opioid Initiation With Recurrent Opioid Use

Jason A. Hoppe, DO*; Howard Kim, MD; Kennon Heard, MD, PHD

4801 patients with minor painful condition over 1 year
52% opioid naïve (no prescription in the year prior to visit)

299 (12%) of opioid naïve patients went to on to have recurrent use

"Opioid naïve ED patients prescribed opioids for acute pain are at increased risk for additional opioid use at 1 year."

EXTENT AND IMPACT OF OPIOID PRESCRIBING FOR ACUTE OCCUPATIONAL LOW BACK PAIN IN THE EMERGENCY DEPARTMENT

Sharon S. Lee, MD, MPH, YoonSun Choi, MA, and Glenn S. Pransky, MD, MOCCH

Liberty Mutual Research Institute for Safety, Hopkinton, Massachusetts
Reprint Address: Glenn S. Pransky, MD, MOCCH, Liberty Mutual Research Institute for Safety, 71 Frankland Road, Hopkinton, MA 01748

2887 ED patients with acute onset low back pain
349 (12%) received an early opioid prescription

After multivariable adjustment, early opioids associated with higher long-term use of opioids (22% vs 16%).

"Early opioid prescribing in the ED for uncomplicated LBP increased long-term opioid use and medical costs, and should be discourage."

Pain. 2017 Feb;158(2):289-295. doi: 10.1097/j.pain.0000000000000756.

Persistent pain after motor vehicle collision: comparative effectiveness of opioids vs nonsteroidal antiinflammatory drugs prescribed from the emergency department-a propensity matched analysis.

Beaudoin FL[1], Gutman R, Merchant RC, Clark MA, Swor RA, Jones JS, Lee DC, Peak DA, Domeier RM, Rathlev NK, McLean SA.

948 patients with MVA

No difference in risk for moderate to severe musculoskeletal pain at 6 weeks

Participants prescribed opioid were more likely than those to report persistent use than those prescribed only NSAIDS (risk difference 17.5%)

"Analgesic choice at ED discharge does not influence the development of persistent moderate to severe musculoskeletal pain 6 weeks after an MVC, but may result in continued use of prescription opioids."

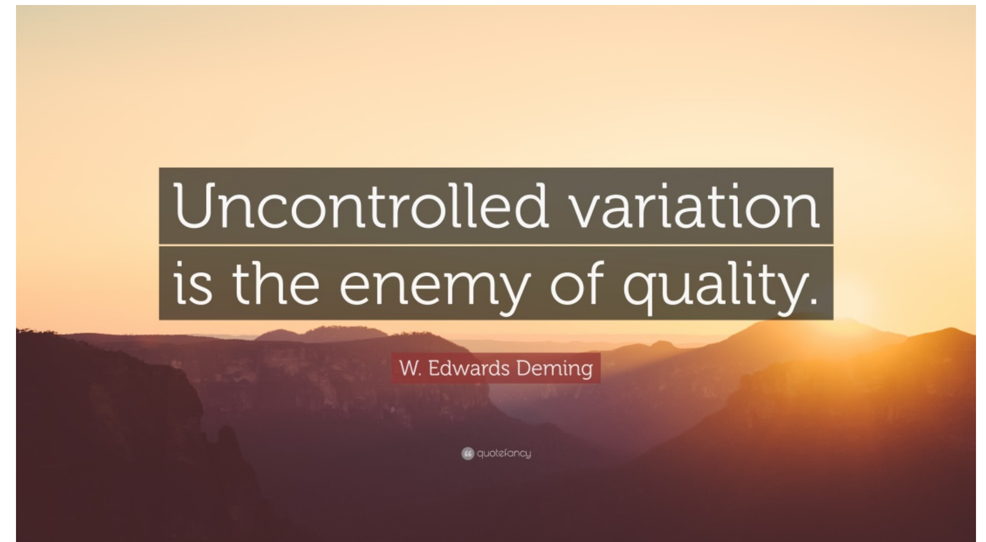
Mazer-Amirshahi – Academic Emergency Medicine 2014; 21:236-243

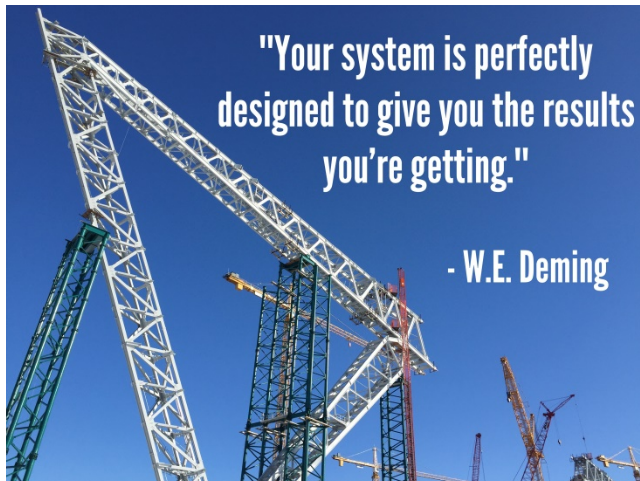
- NHAMCS - Between 2001-2010:
  - Painful conditions 47.1% to 51.1%
  - Non-opioids 26.2% to 27.3%
  - Opioid use increased from 20.8% to 31.0% of all visits
  - Use of schedule II 7.6% to 14.5%

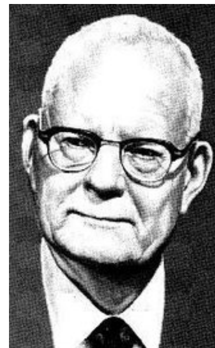
Benchmarking

“ YOU CAN'T MANAGE WHAT YOU DON'T MEASURE.

- W. Edward Deming







“Without data you’re just another person with an opinion”

- W. Edwards Deming

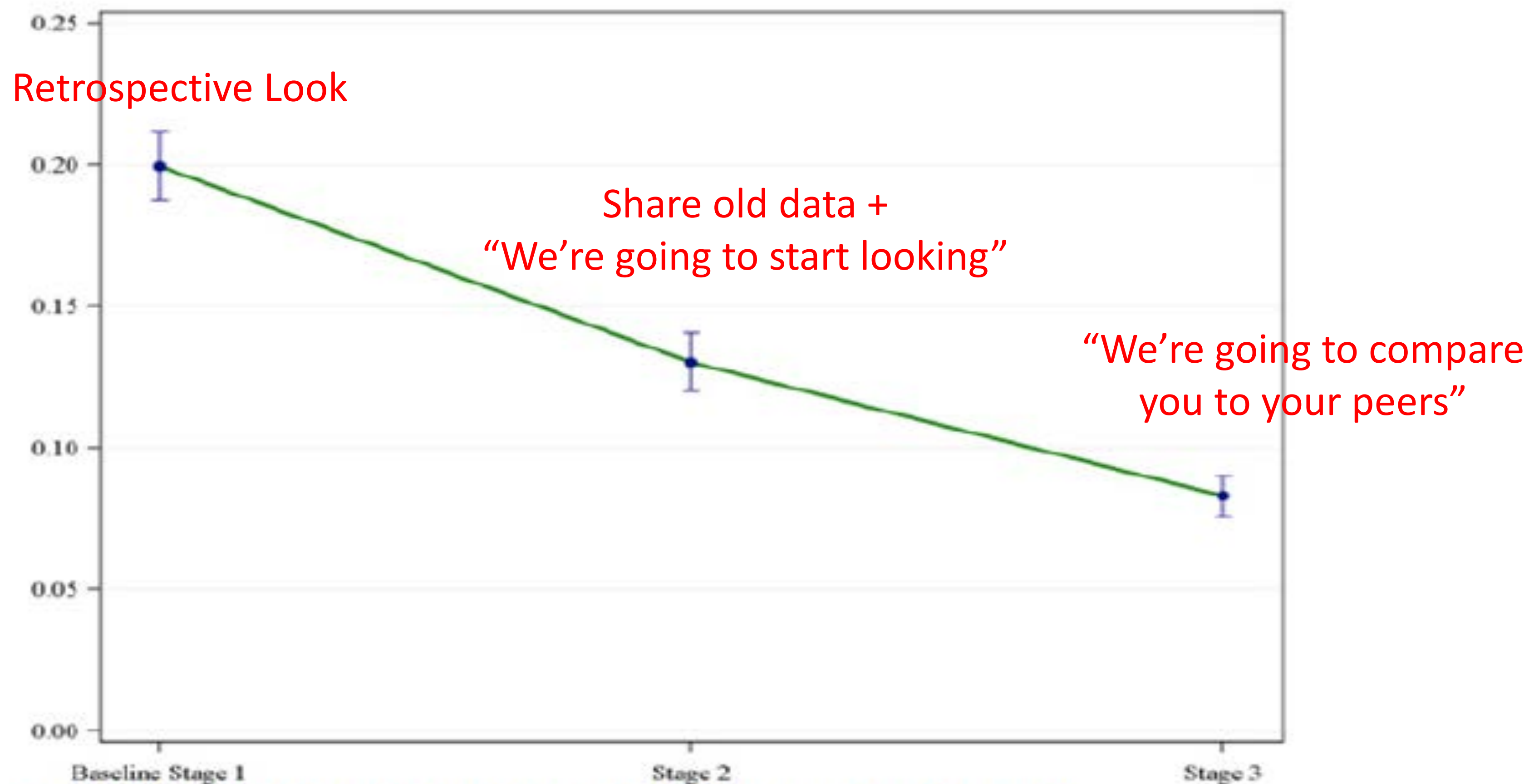


Figure 1. Mean stage physician prescribing rates and corresponding standard errors by stage of intervention.

Burton JH, et al. WJEM 2016;17:258-63

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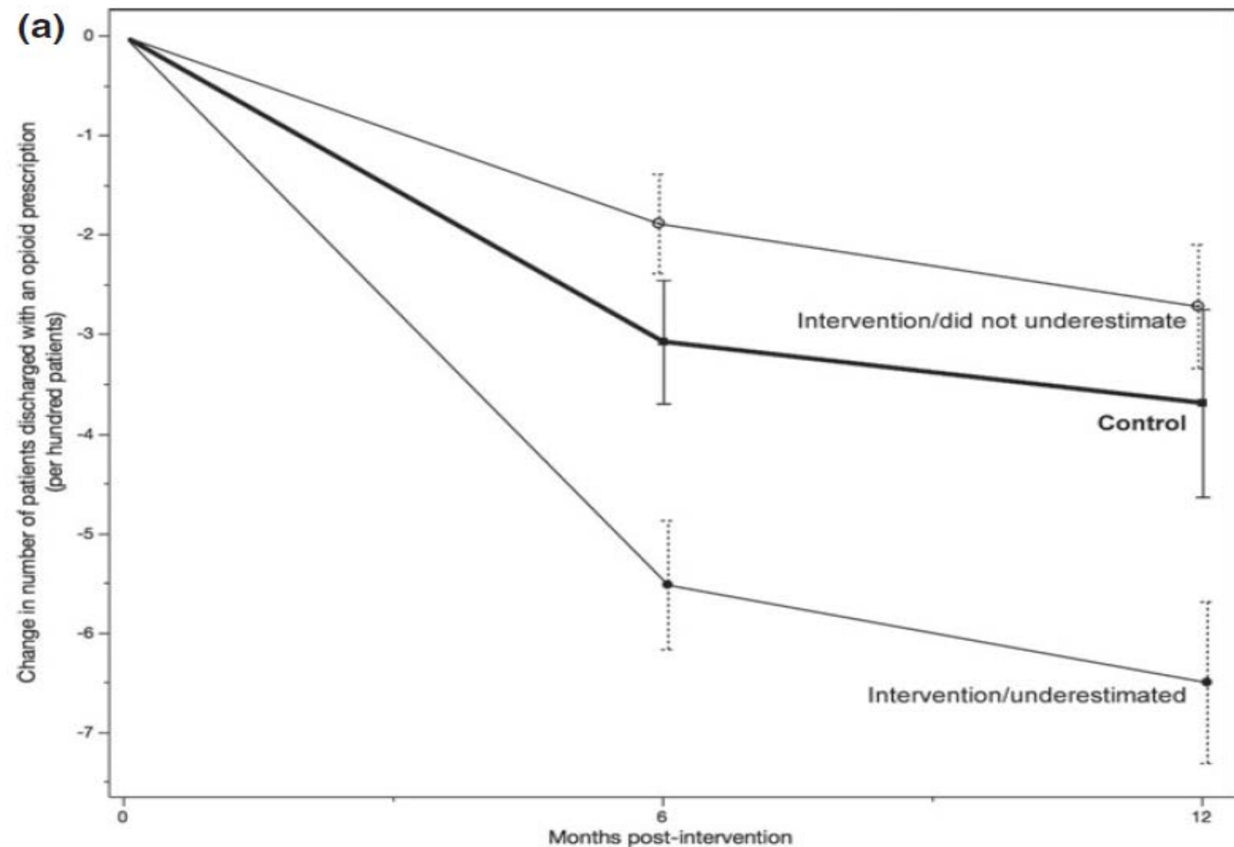
Effect of a Data-driven Intervention on Opioid Prescribing Intensity Among Emergency Department Providers: A Randomized Controlled Trial

Sean S. Michael, MD, MBA, Kavita M. Babu, MD, Christopher Androski, Jr, MS, and Martin A. Reznek, MD, MBA

Attendings, residents, APPs randomized to no intervention or data-driven intervention.

65% underestimated their opioid prescribing



1. Opioid prescriptions should be limited to the shortest duration possible; three days or less will be sufficient in most cases (up to seven days may be appropriate in certain circumstances).

2. All patients should be educated about opioid-specific risks and realistic benefits when considering an opioid prescription, with particular attention to high risk groups including adolescents, pregnant women, elderly and those with a history of substance use disorder.

3. Non-opioid pain relievers should be recommended and/or prescribed prior to and concurrent with opioids as appropriate.

4. The state Prescription Drug Monitoring Program (PDMP) should be checked prior to prescribing an opioid, when feasible.

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5. Educate patients about the risks associated with concurrent use of opioids and benzodiazepines and avoid co-prescribing whenever possible.

6. Opioid prescriptions generally should not be written for chronic pain unless there is coordination with the patient's primary pain treating clinician.

7. Prescriptions for long-acting/extended-release opioids for the treatment of pain should not be initiated from the ED.

8. Lost, destroyed or stolen opioid prescriptions should not be refilled.

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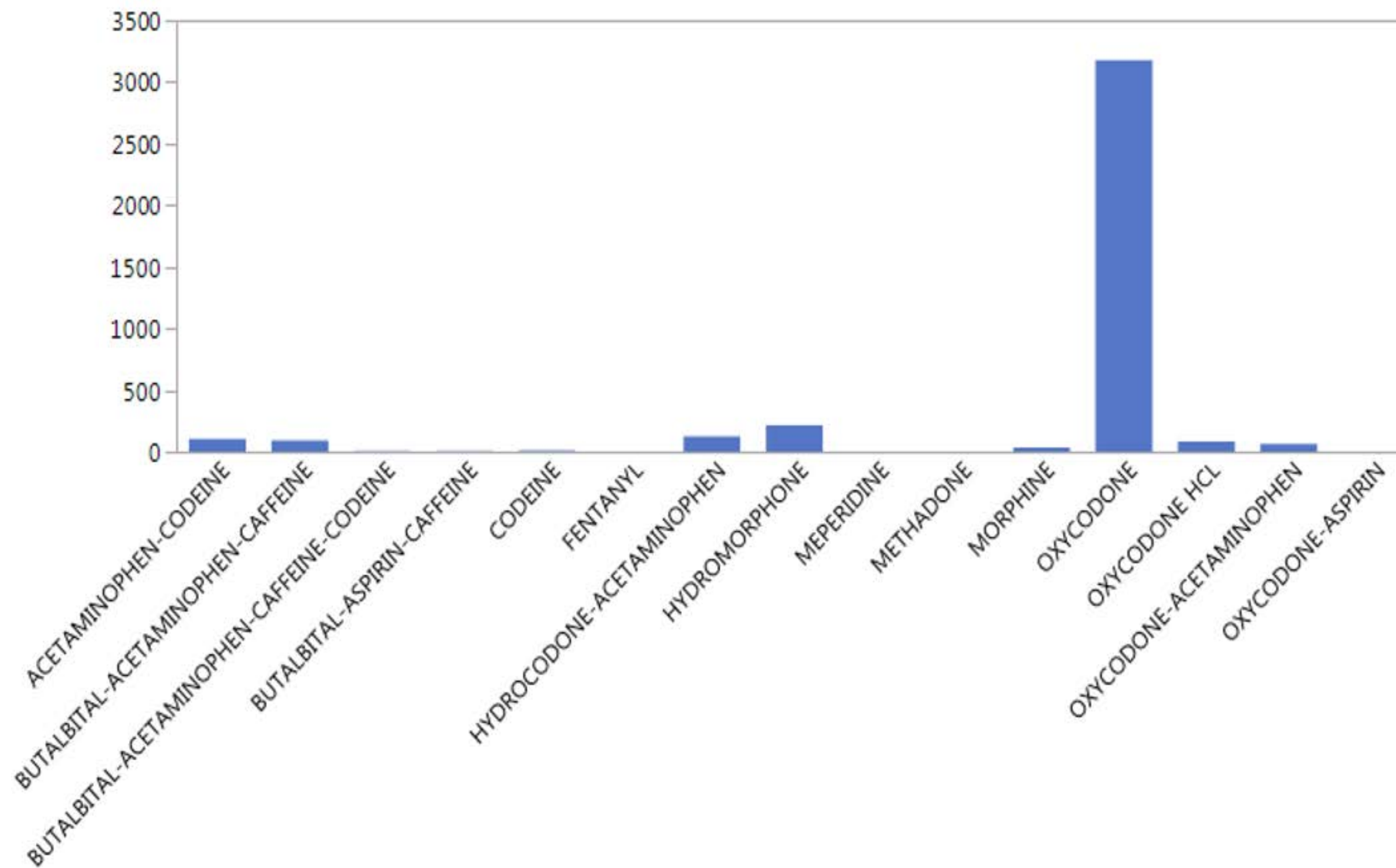
Steps to Take

- Engage providers for buy-in and explain rationale
- Collect data
- Make a decision re: identified vs. de-identified
- Decide on format
- Do not tie to financial incentives
- Patient satisfaction/pain scores

Rx by Opioid



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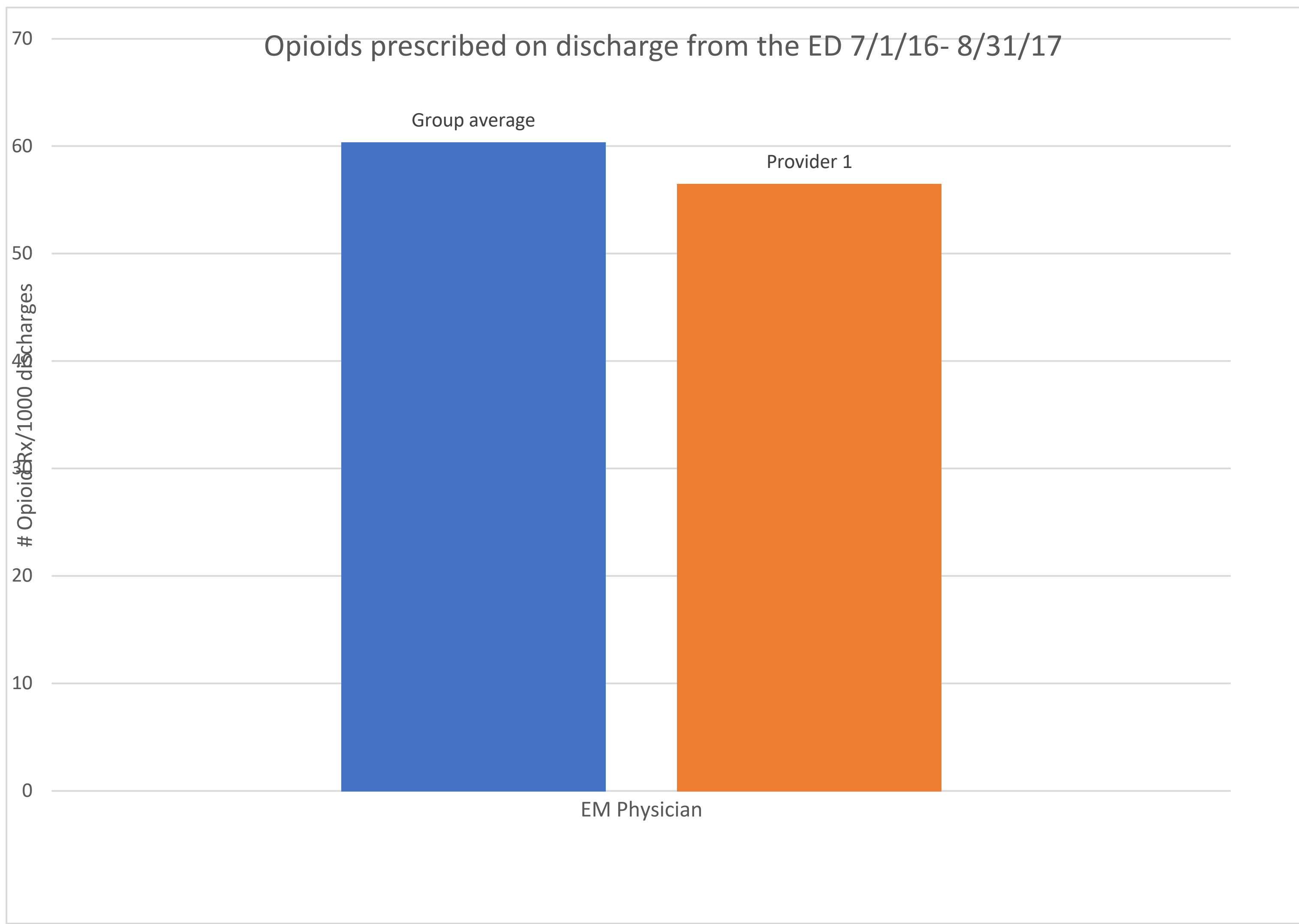
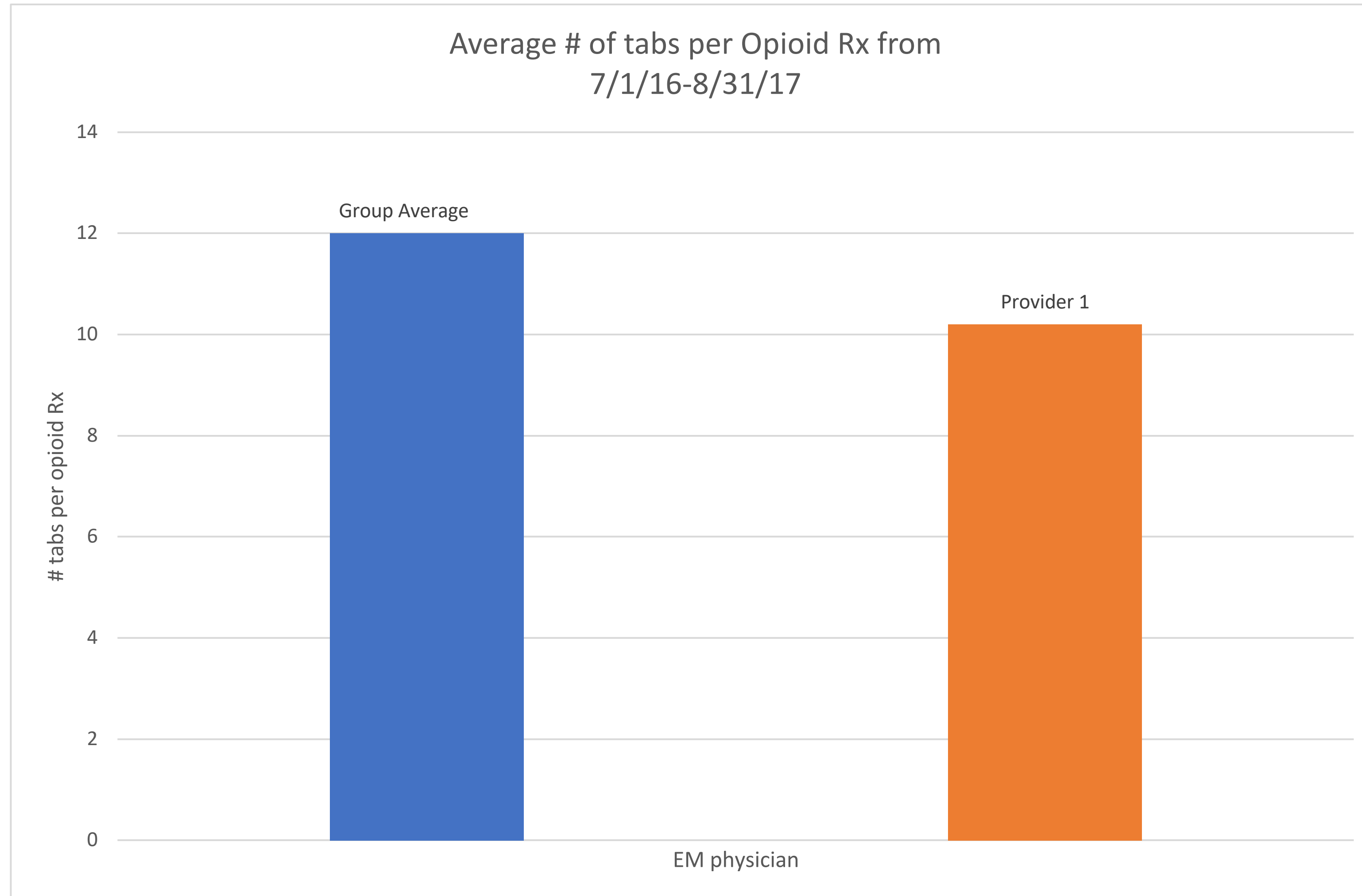
Sample Report



Sample Report



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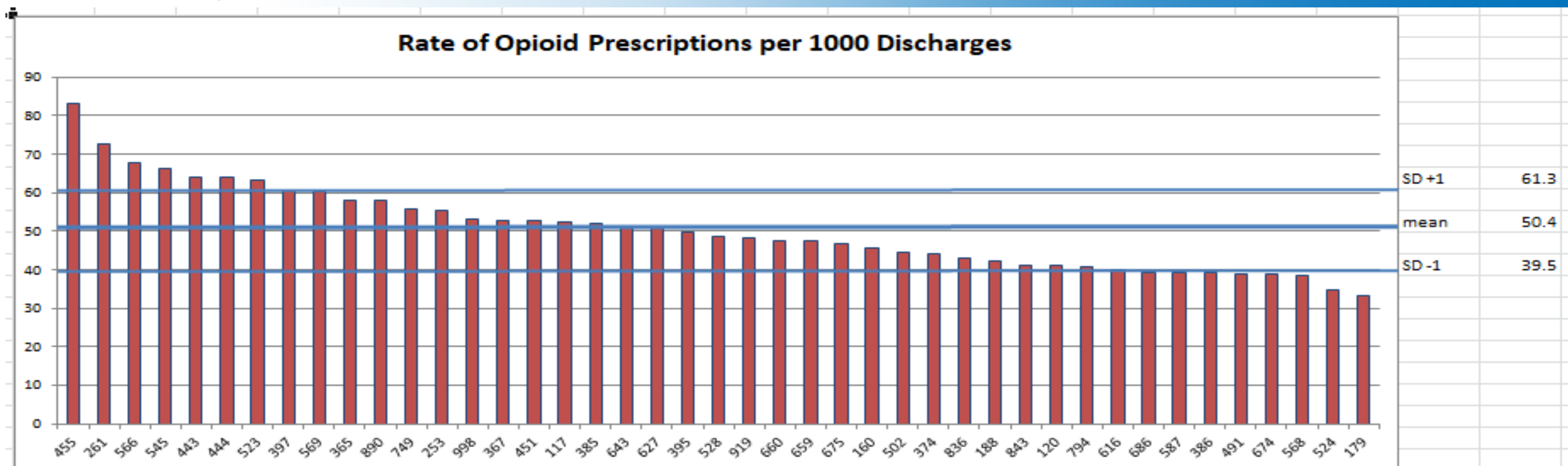

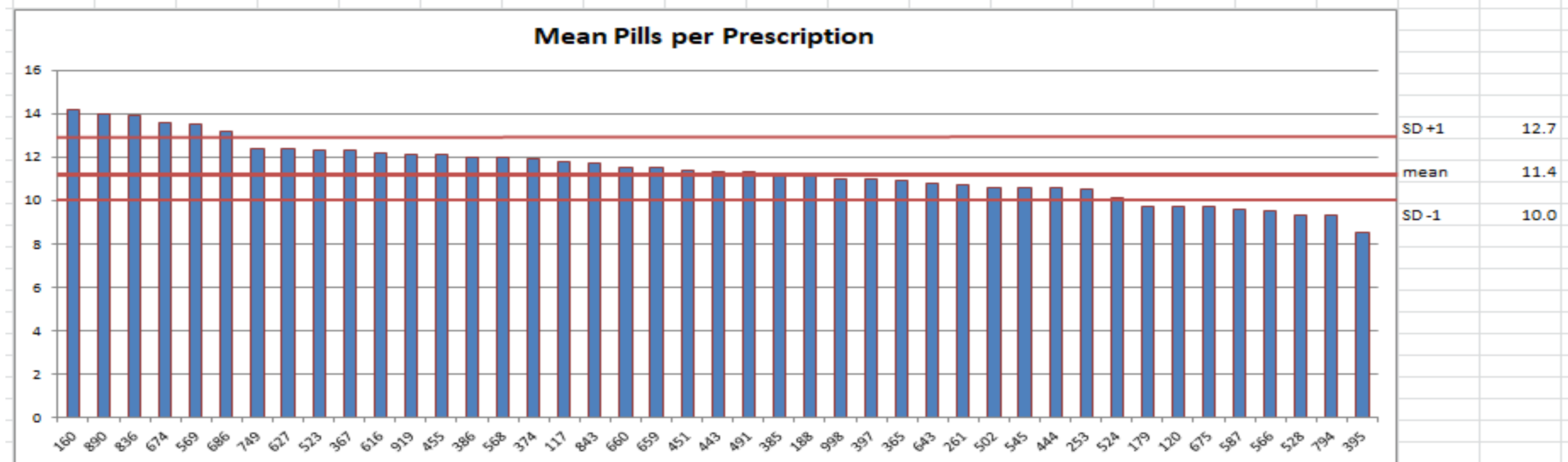

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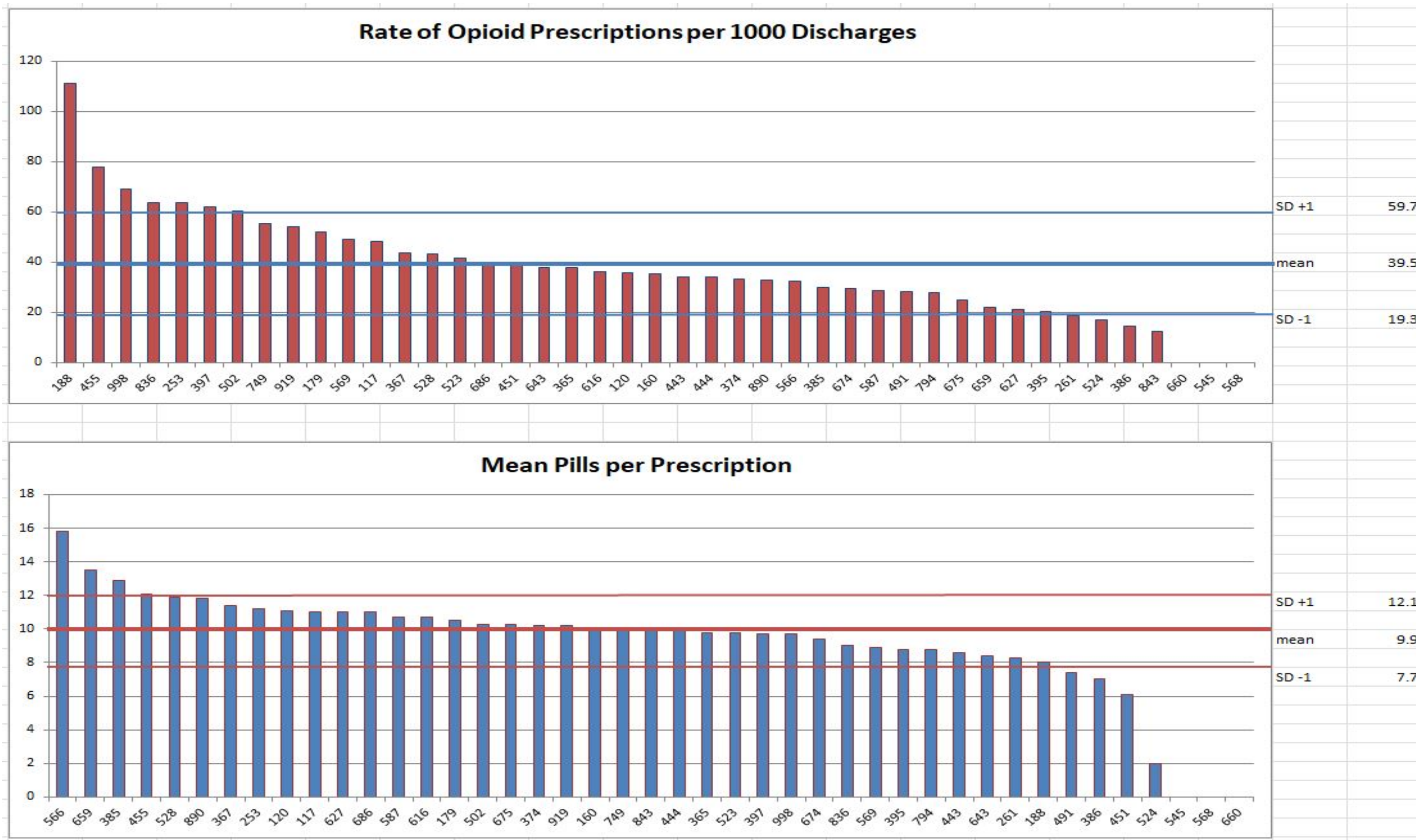

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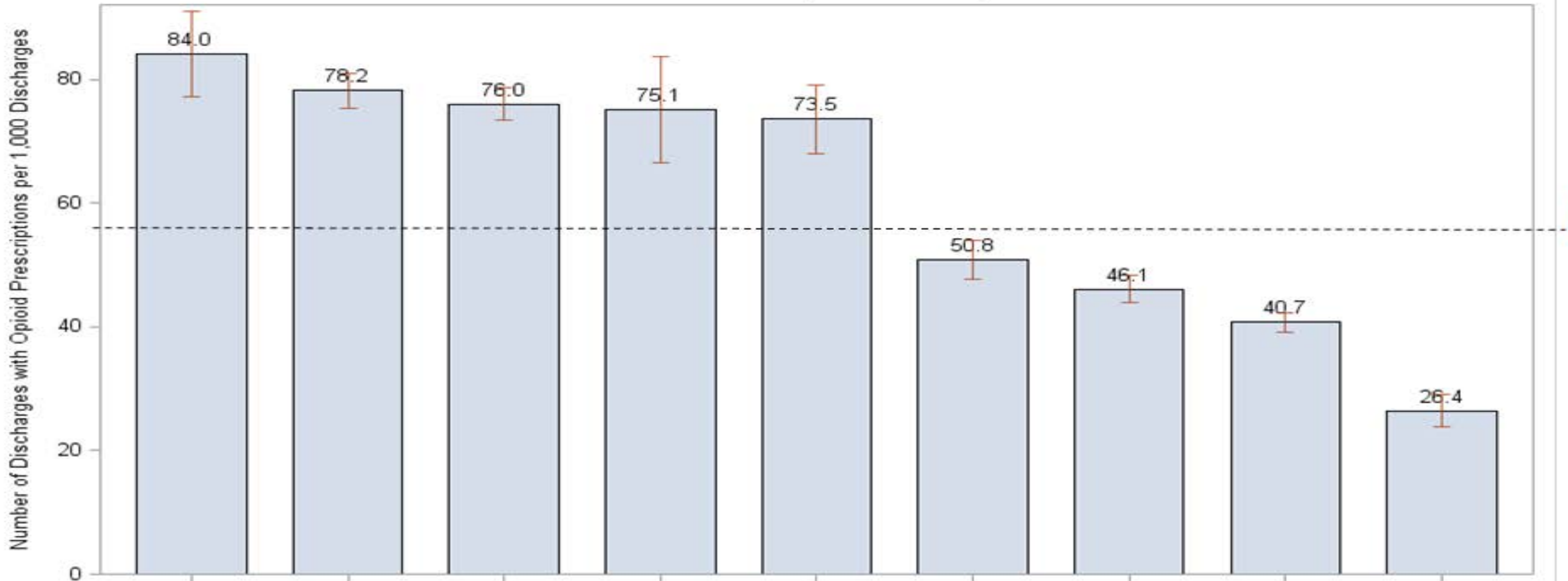

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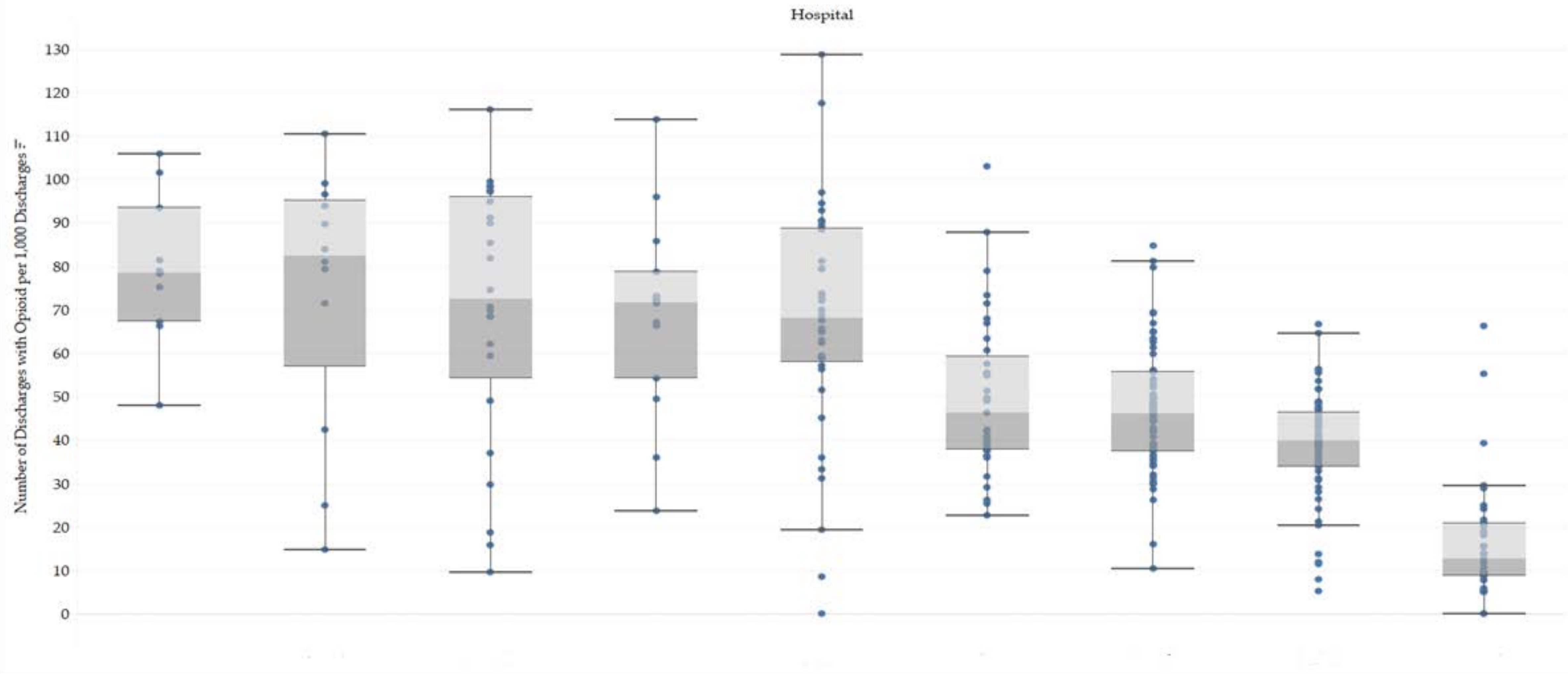

Thank you!

sweiner@bwh.harvard.edu

For More Informati

- E-QUAL Website
  - www.acep.org/equal
  - equal@acep.org

- Contacts:
  - Nalani Tarrant: (Senior Project Manager)
    ntarrant@acep.org
  - Dhruv Sharma: (Project Manager)
    dsharma@acep.org

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