

The Effect of Decision Fatigue on Opioid Prescribing

BACKGROUND

DECISION FATIGUE: The progressive depletion of mental resources as people engage in making a series of choices. This depletion leads to a decreased ability to resist urges and decreased quality of decisions¹. As one study notes, "Decision fatigue progressively impairs clinicians' ability to resist ordering inappropriate treatments"².

OPIOID EPIDEMIC: Claims the lives of an estimated 116 people every day in the United States³

PROBLEM: Does decision fatigue play a role in the over-prescription of opioids in the primary care setting? Does the likelihood of a patient being prescribed opioids change throughout the day? If so, have the efforts to combat the opioid epidemic had an effect on this phenomenon?

AIM

Determine whether recent legislation, updated healthcare guidelines, and increased public awareness have had an effect on primary care physicians' decision fatigue, in regards to opioid prescription rates

MEASURES & METHODS

PRIMARY MEASURE: Hourly variation in percentage of appointments in which a prescription for an opioid analgesic was given

YEARS STUDIED: 2014 and 2017 (pre- and post-interventions)

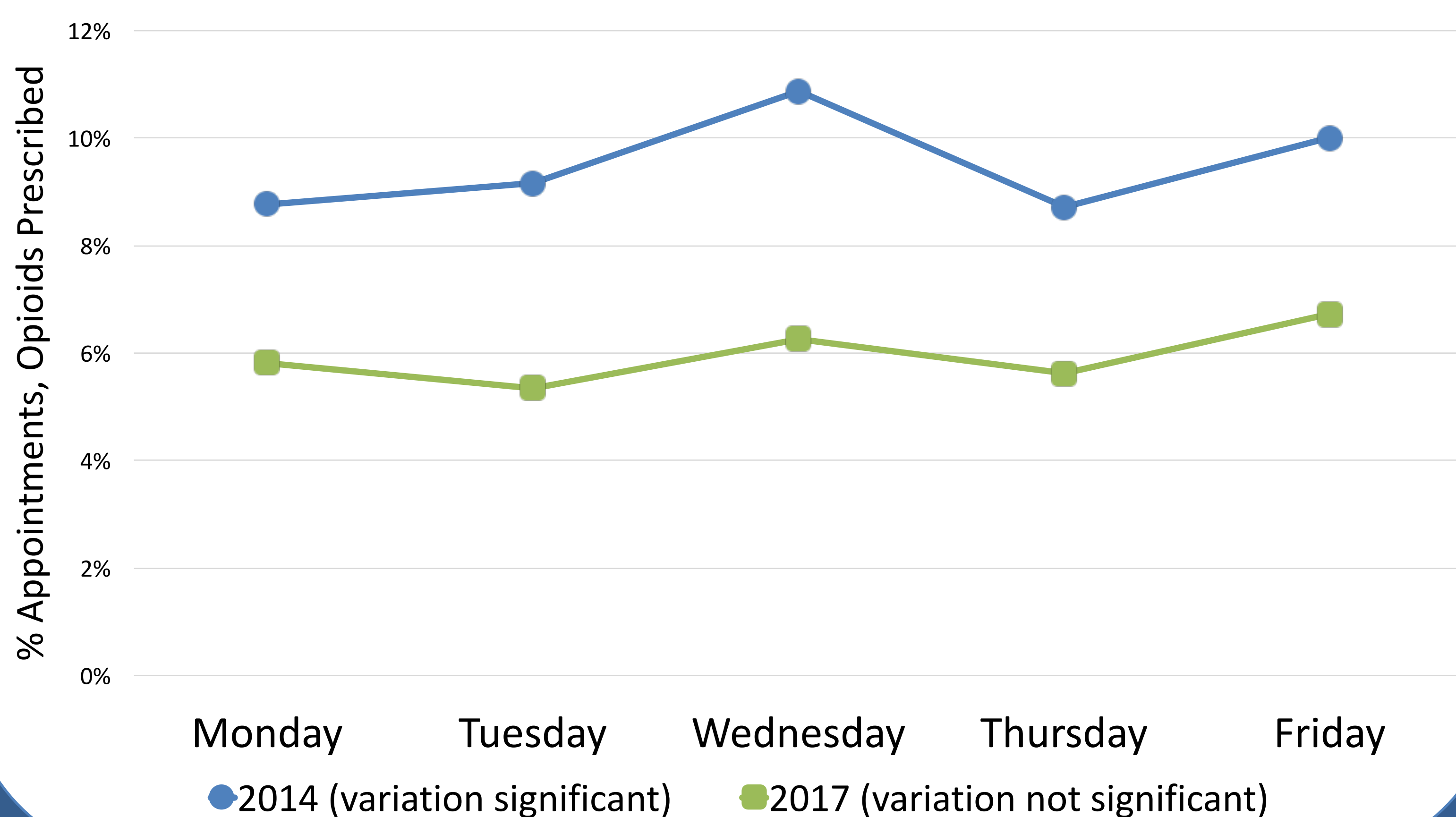
INTERVENTIONS: New legislation, updated healthcare guidelines, and national media coverage in 2016

- The FDA's General Principles for Evaluating the Abuse Deterrence of Generic Solid Oral Opioid Drug Products: Guidance for Industry⁴
- CDC Guideline for Prescribing Opioids for Chronic Pain—United States, 2016⁵
- Comprehensive Addiction and Recovery Act of 2016⁶
- Surgeon General's Call to End the Opioid Crisis⁷
- Opioid epidemic as top health news story of 2016⁸

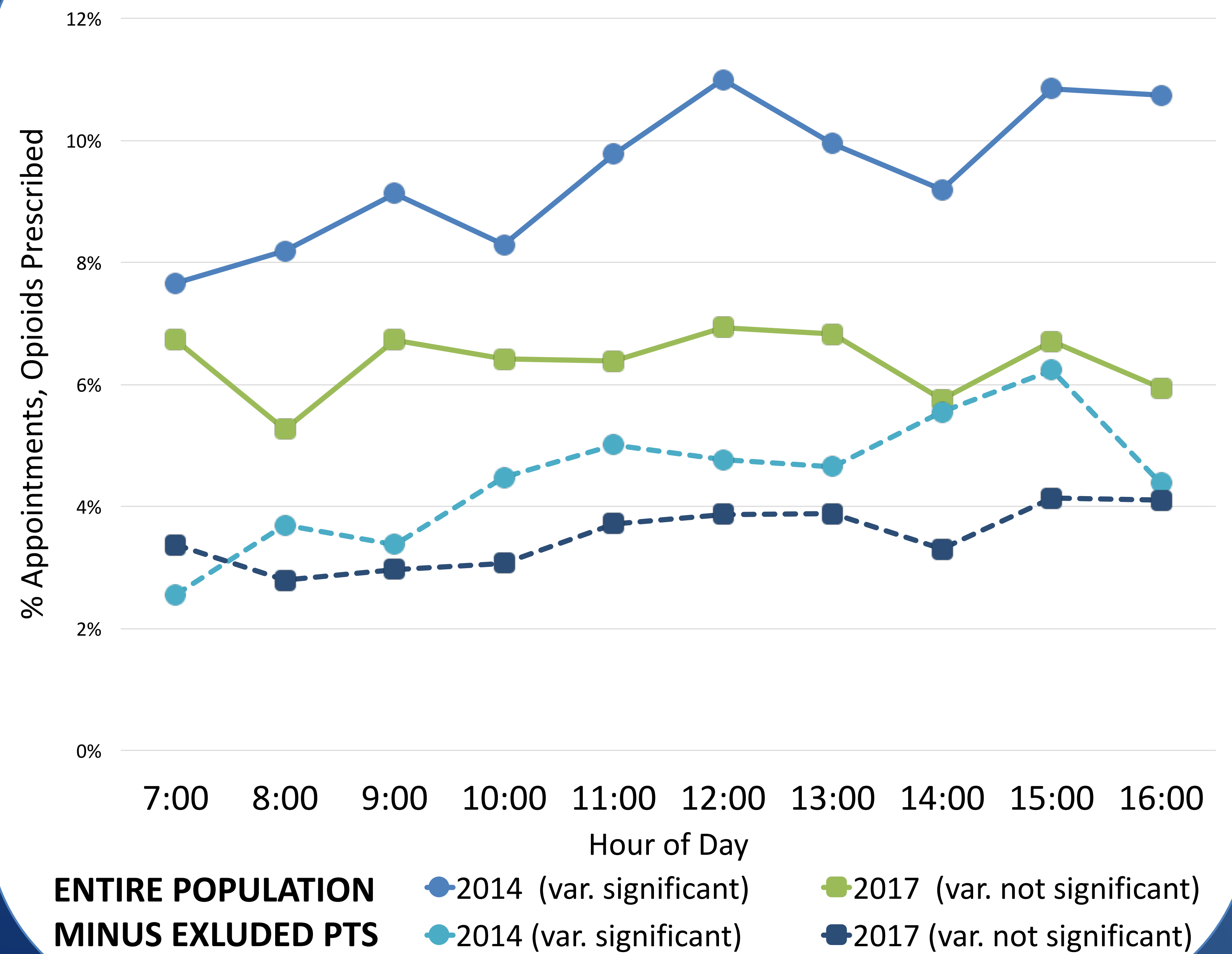
EXCLUSION CRITERIA: Appointments for patients with a cancer diagnosis, chronic pain diagnosis, and/or surgery in the last 6 weeks

PREDICTED OUTCOME: The interventions will lead to more equitable delivery of healthcare – that is to say, less variation in opioid prescription rates throughout the clinical day

DAILY OPIOID PRESCRIPTION RATES, ENTIRE POPULATION



HOURLY OPIOID PRESCRIPTION RATES



APPOINTMENT HOUR COMPARISONS, CHANGES FROM 2014 TO 2017

ENTIRE POPULATION

- ↓ 08:00 vs 12:00 ↑
- ↓ 08:00 vs 13:00 ↑
- ↓ 08:00 vs 15:00 ↑

EXCLUSION CRITERIA APPLIED

- ↓ 07:00 vs 15:00 ↑
- ↓ 08:00 vs 15:00 ↑

PRESCRIPTION RATES, ENTIRE POPULATION



CONCLUSION

Decision fatigue had a significant influence on the opioid prescription rates of primary care physicians in 2014. But, following the 2016 efforts to combat the opioid epidemic, decision fatigue's role became insignificant by 2017. While we cannot determine causality, the interventions do correlate with decreased opioid prescription rate variation, and thus more equitable healthcare delivery.

REFERENCES

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