



Opioid prescriptions decrease over time among Michigan Medicaid beneficiaries: A preliminary analysis of Michigan Medicaid prescription claims

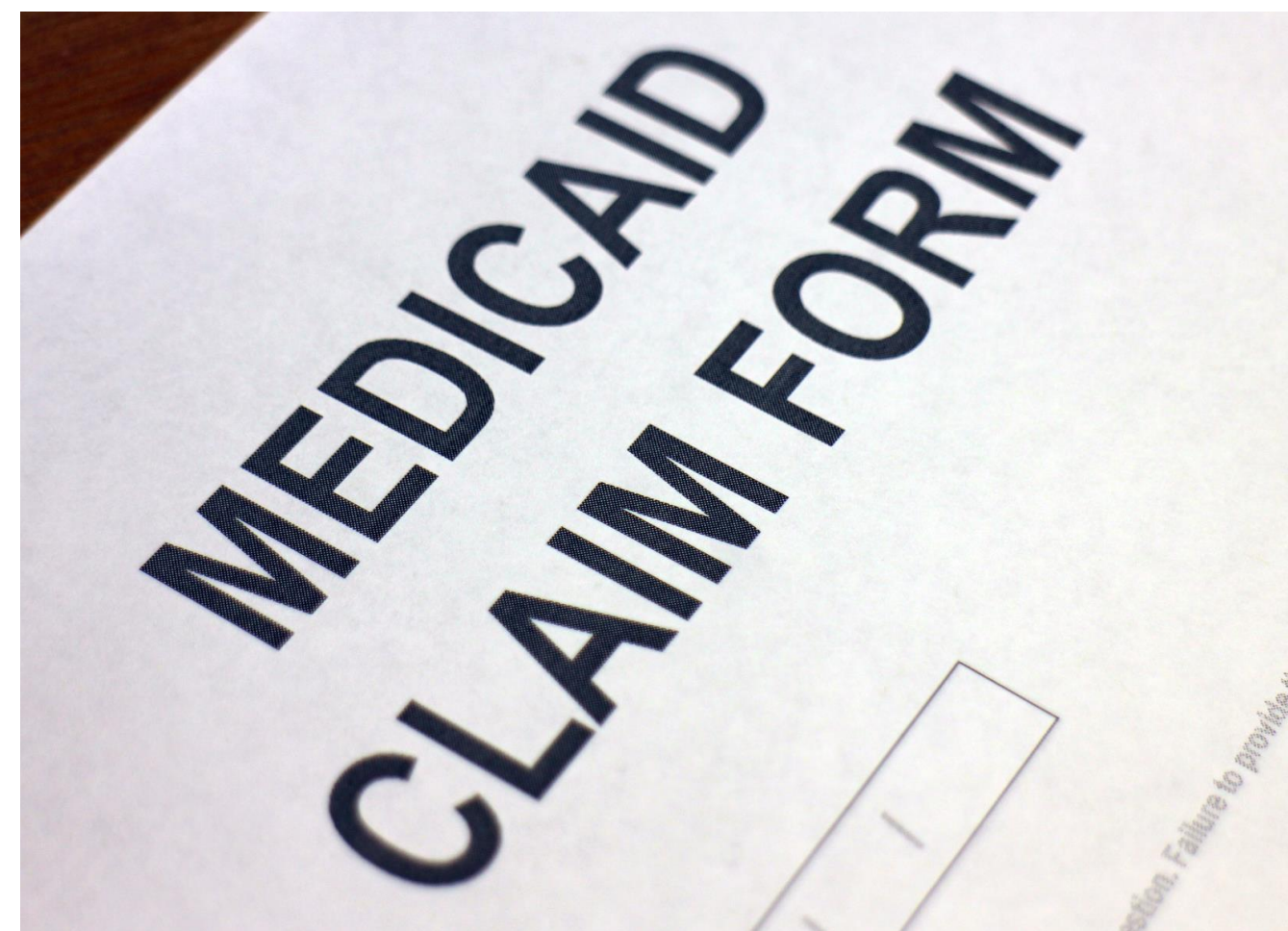
Chiara Macaraig, OMS-IV¹, Angela S. Lee, MPH¹, Lisa A. DeStefano, DO¹, Kevin Brooks, PhD², Zongqiang Liao, PhD², John M. Popovich, Jr., PhD, DPT, ATC¹

1. Center for Neuromusculoskeletal Clinical Research, Department of Osteopathic Manipulative Medicine, College of Osteopathic Medicine, Michigan State University, East Lansing, MI, 2. Institute for Health Policy, College of Human Medicine, Michigan State University, East Lansing, MI

INTRODUCTION

Background

- Low back pain is a leading cause of global disability and the 2nd most common reason for physician visits.
- Though opioids are effective for pain management, opioid-related death rates continue to rise.
- Especially concerning for Medicaid beneficiaries as these patients are prescribed opioids at twice the rate of non-Medicaid populations.



Purpose

- Identify the trends of opioid prescriptions among the Michigan Medicaid population.

Hypothesis

- Given the spotlight of adverse effects and deaths associated with opioid use, and recommendations for alternative pain treatments, we hypothesized that opioid prescriptions would demonstrate a decrease over time.

METHODS

- Michigan Medicaid claims and enrollment dataset from the Michigan Department of Health and Human Services Data Warehouse.
- Study Population (Figure 1):
 - Medicaid beneficiaries with a spinal diagnosis between Jan 1, 2016 – Dec 31, 2021
 - No additional insurance
 - Continuously enrolled for at least 10 months
 - Resided in Ingham or Kalamazoo counties
 - ≥1 opioid prescription claim
- Opioid drugs identified using the Centers for Disease Control (CDC) national drug codes for opioid analgesics.
- Descriptive statistics were used to quantify counts and percentages (i.e., beneficiaries, prescription claims) and identify trends over time.

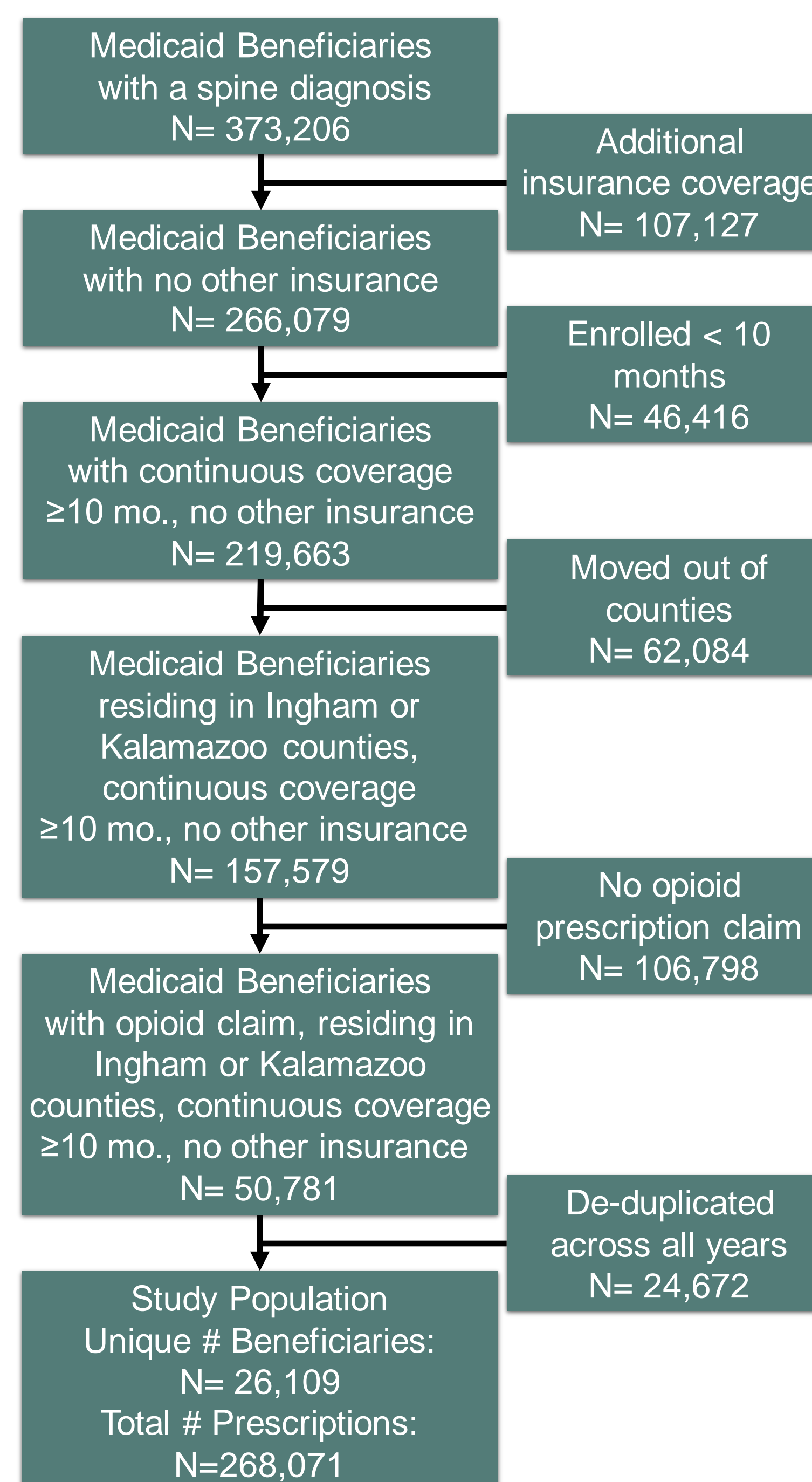


Figure 1. Study flow diagram.

From 2016-2021, Michigan counties exhibit an overall decreasing trend in opioid prescriptions.

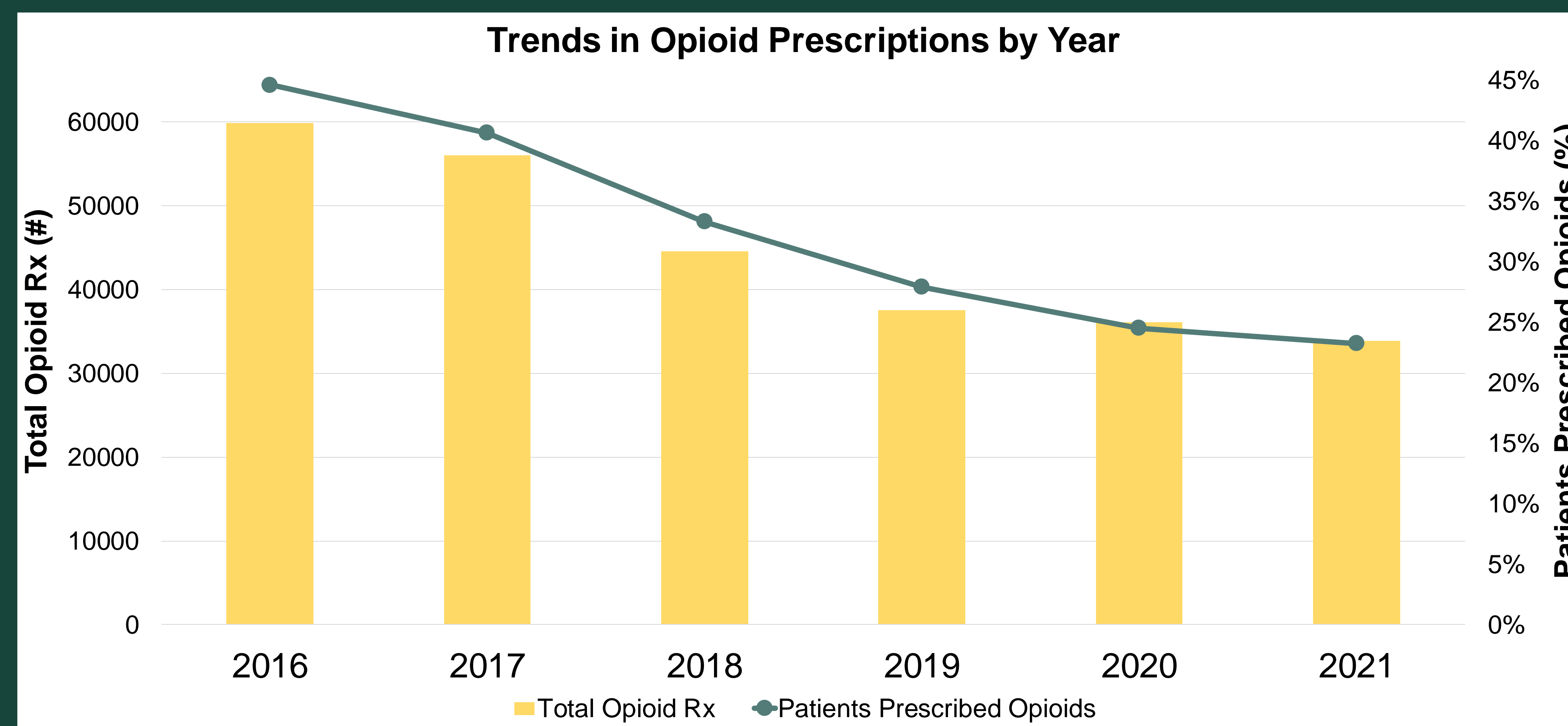


Figure 2. Decreasing trend in opioid prescriptions from 2016-2021 of the defined population in Ingham and Kalamazoo counties.

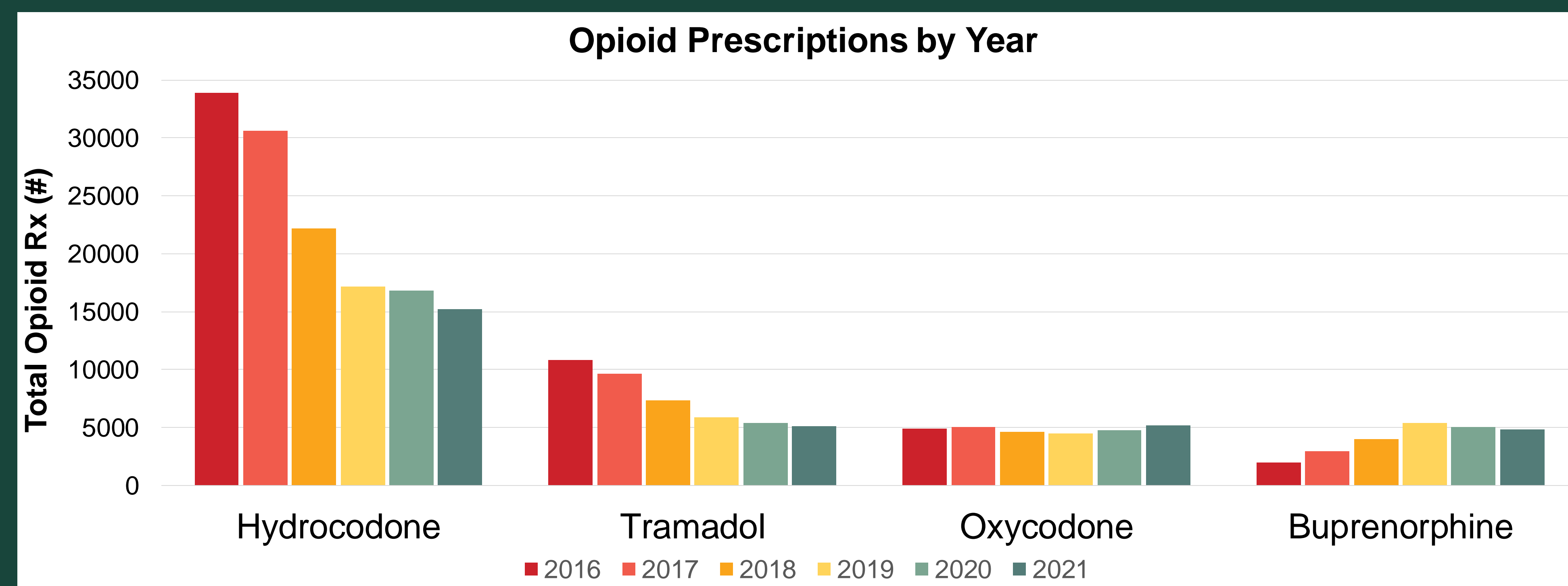


Figure 3. Opioid prescriptions and medications from 2016-2021.

ACKNOWLEDGEMENTS

We would like to acknowledge the Michigan Department of Health and Human Services (MDHHS) and the MSU Institute for Health Policy (IHP) for their expertise and collaboration in providing access to data obtained for this poster presentation. The contents of this poster are solely the responsibility of the authors and do not necessarily represent the official views of MDHHS or MSU IHP.

RESULTS

- A total of 26,109 unique Medicaid beneficiaries and a total of 268,071 prescription claims of opioid drugs were identified over the course of January 1, 2016 – December 31, 2021 (Figure 1).
- From 2016-2021, there was 43% decrease in opioid drug prescriptions, and a similar decrease (41%) in the number of Medicaid beneficiaries receiving opioid prescriptions (Figure 2).
- From 2016-2021, Hydrocodone was the most prescribed opioid medication, followed by Tramadol and Oxycodone (Figure 3).
- Similar trends in opioid dispensing rates in the United States were reported by the CDC (Figure 4).

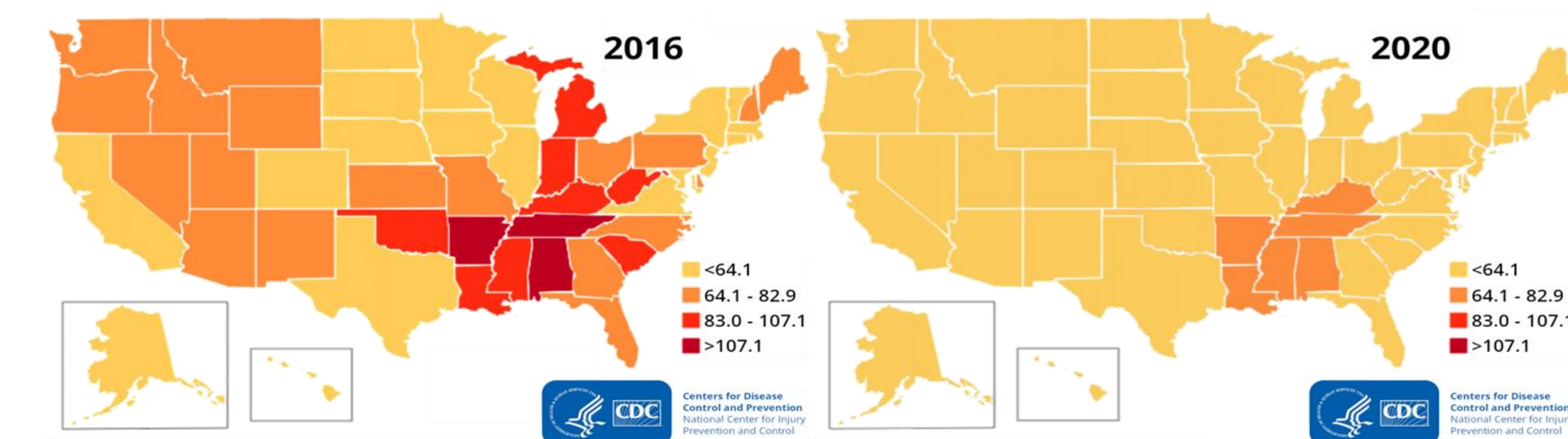


Figure 4. Opioid dispensing rates in the United States per 100 people from 2016 (left) to 2020 (right). Adapted from the Centers for Disease Control website: <https://www.cdc.gov/drugoverdose/rxrate-maps>

CONCLUSIONS

- There was a decreasing trend of opioid prescriptions and total number of patients prescribed opioids over 2016-2021.
- Findings are consistent with 2016 CDC Guidelines for Opioid Prescriptions, which included recommendations:
 - To use nonopioid therapies for chronic pain.
 - To avoid concurrent opioid use & implement drug monitoring.
- Trends reflect updated changes to Michigan opioid prescribing legislation passed in 2017 that was enacted to limit substance abuse and drug diversion problems.

Future Studies

- Further investigation is needed to identify the factors associated with the identified trends and potential clinical outcomes.

OSTEOPATHIC RELEVANCE

- Though opioids may treat physical pain, providers must also address the patient as a whole person (mind, body, spirit).
- Osteopathic manipulative treatment may be a frontline approach to help improve patients suffering from chronic pain, potentially foregoing the use of opioid drugs.
- Integration of cognitive behavioral therapy and other mind-body interventions may be effective in reducing the use of opioid drugs.