

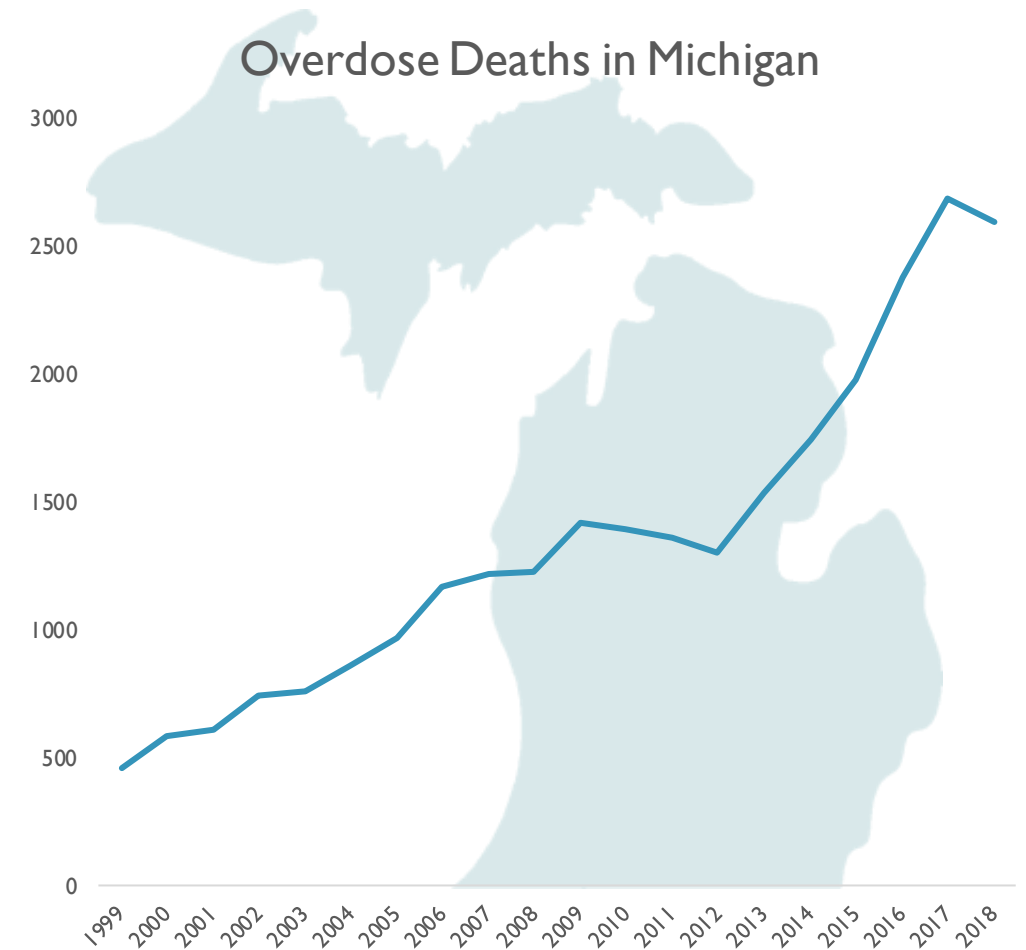
OVERDOSES DURING THE COVID-19 PANDEMIC

MICHIGAN

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BACKGROUND IN MICHIGAN

- Overdoses present a serious public health crisis in Michigan
 - 1999-2017: **18x increase** in overdose deaths
- Progress has been made
 - Overdose deaths decreased in 2018 (disparities persist)
- COVID-19 has the potential to affect overdose trends



DATA MONITORING DURING COVID-19 PANDEMIC

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- Data sources:
 - **Emergency Department (ED)**
Visits: Michigan Syndromic Surveillance System (MSSS)
 - **Emergency Medical Service (EMS)**
Responses: Michigan Emergency Medical Services Information System (MiEMSIS)
 - Timeline: Monthly analysis

DATA SOURCES OVERVIEW



MIEMIS (EMS DATA)

- Electronic documentation system for EMS responses
- “Real-time”
- 100% agency participation
- High missingness of residential information



MSSS (ED DATA)

- Participation is voluntary
- Utilizes electronic health messaging (ADTs)
- “Real-time”
- 16% of EDs in Michigan do not participate or do not send ICD-10-CM codes

CASE DEFINITIONS



MIEMIS (EMS DATA)

Probable opioid overdoses identified through a likelihood formula*

- Builds a composite score from 7 variables
- Probable opioid overdose = score of 4/5 or improvement after naloxone



MSSS (ED DATA)

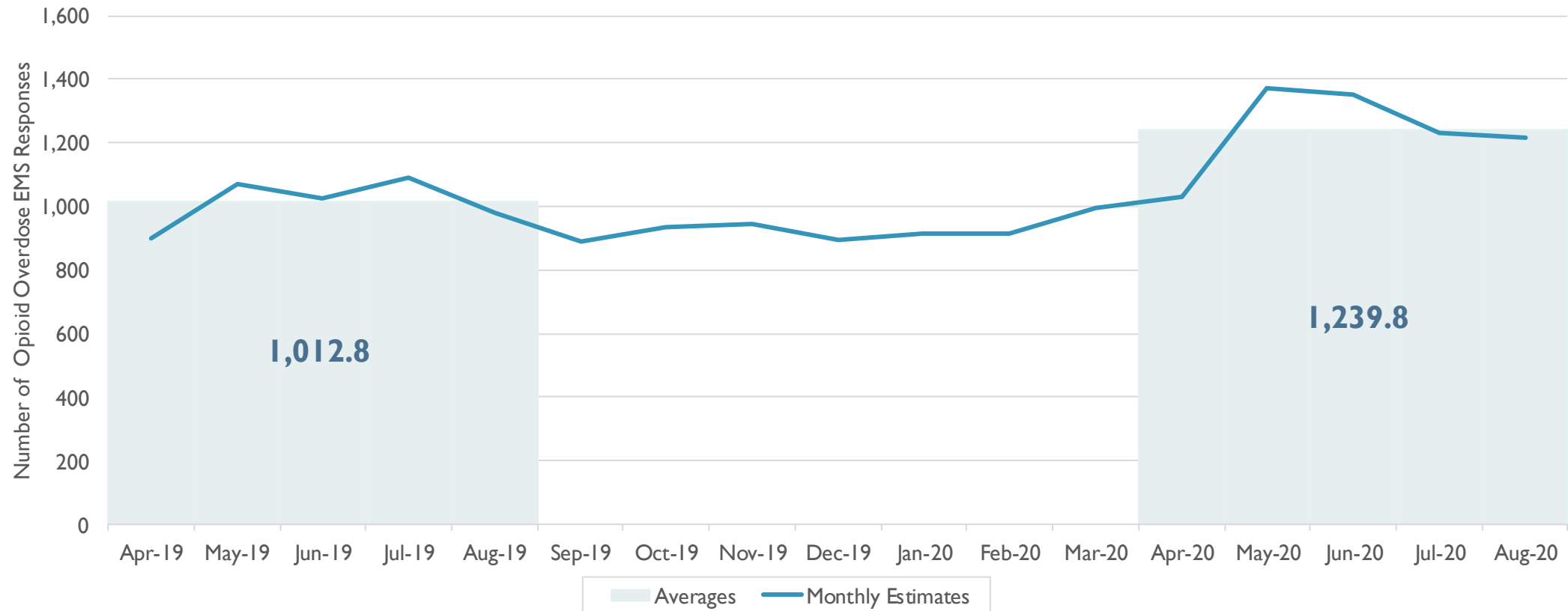
Overdoses identified by ICD-10-CM codes

- Categories:
 - **All drug overdose:** T36-T50
 - **Opioid overdose:** T40.0-T40.4; T40.6
 - **Heroin overdose:** T40.1
- Limited to initial visits, unintentional and undetermined intent poisonings

*EMS opioid overdose formula adapted from King County Public Health formula

EMS RESULTS: NUMBER OF OPIOID OVERDOSE RESPONSES

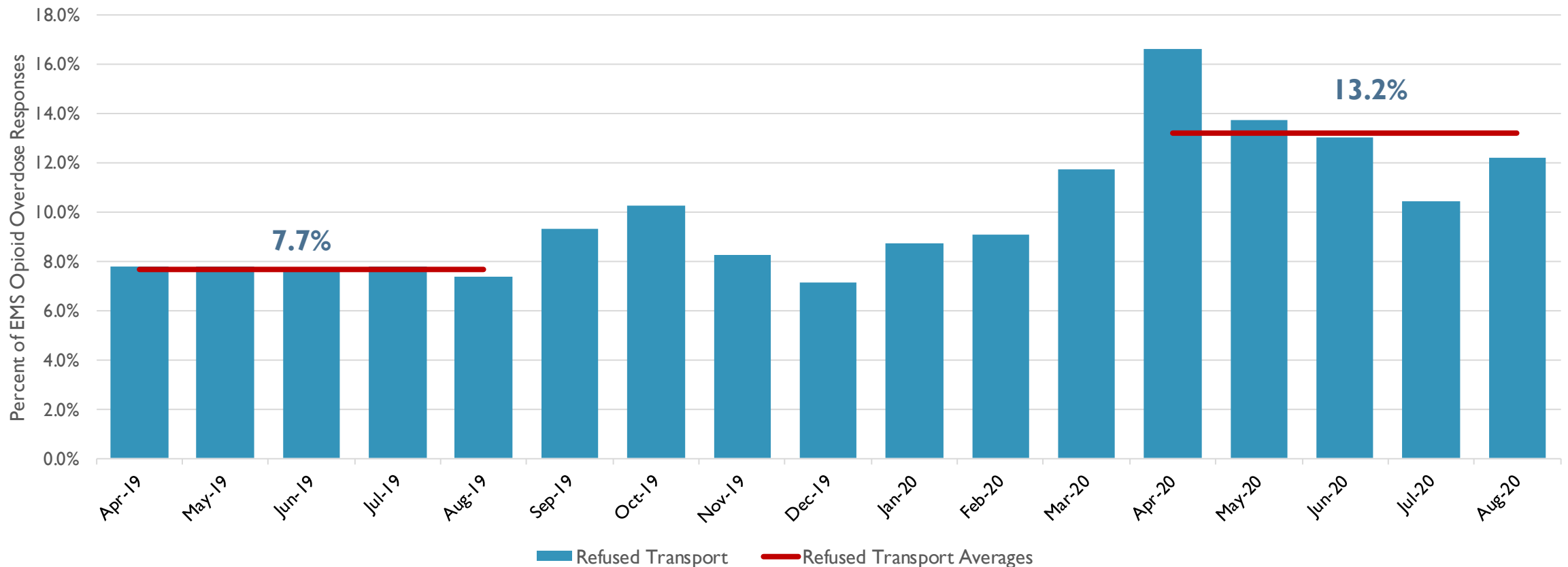
Michigan, April 2019-August 2020



↑ **22.4% increase** comparing pandemic period (Apr-Aug 2020) to same time period in 2019

EMS RESULTS: PERCENTAGE OF TRANSPORT REFUSALS AMONG OPIOID OVERDOSE PATIENTS

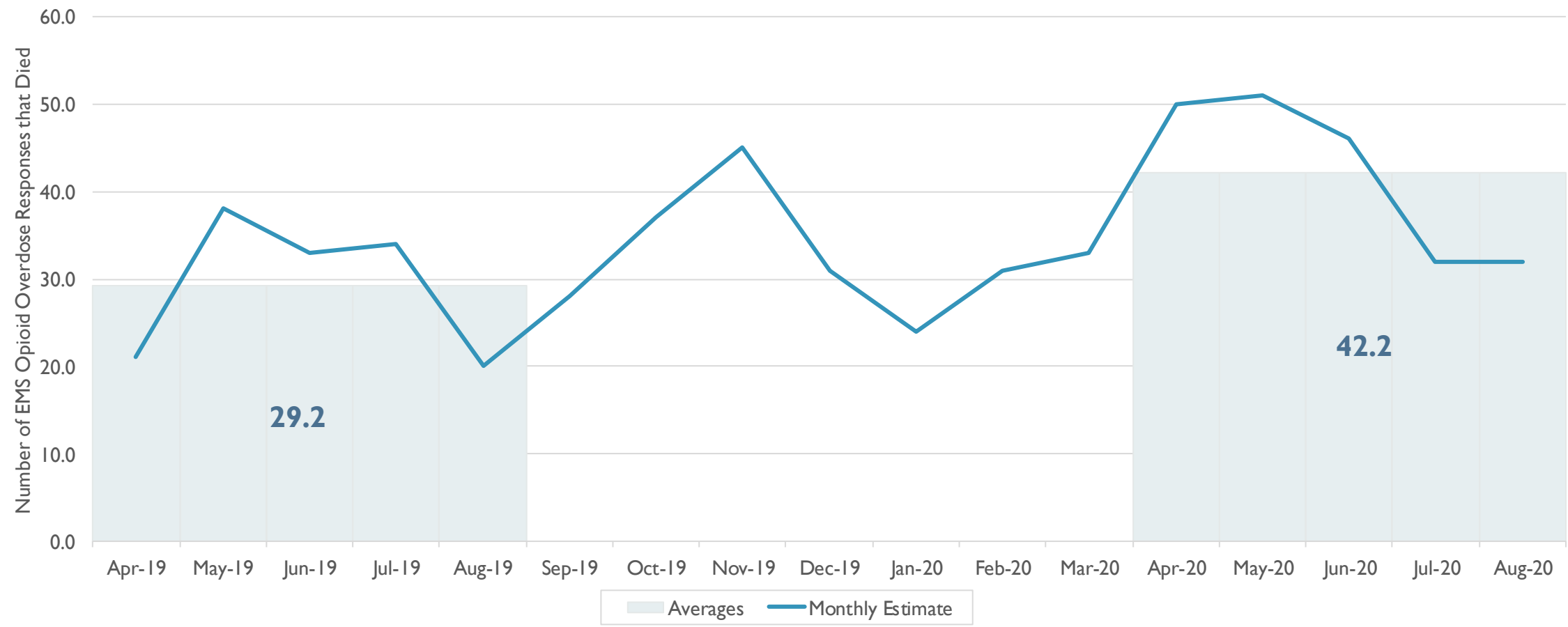
Michigan, April 2019-August 2020



↑ **71.4% increase** comparing pandemic period (Apr-Aug 2020) to same time period in 2019

EMS RESULTS: NUMBER OF DEATHS AMONG OPIOID OVERDOSE PATIENTS

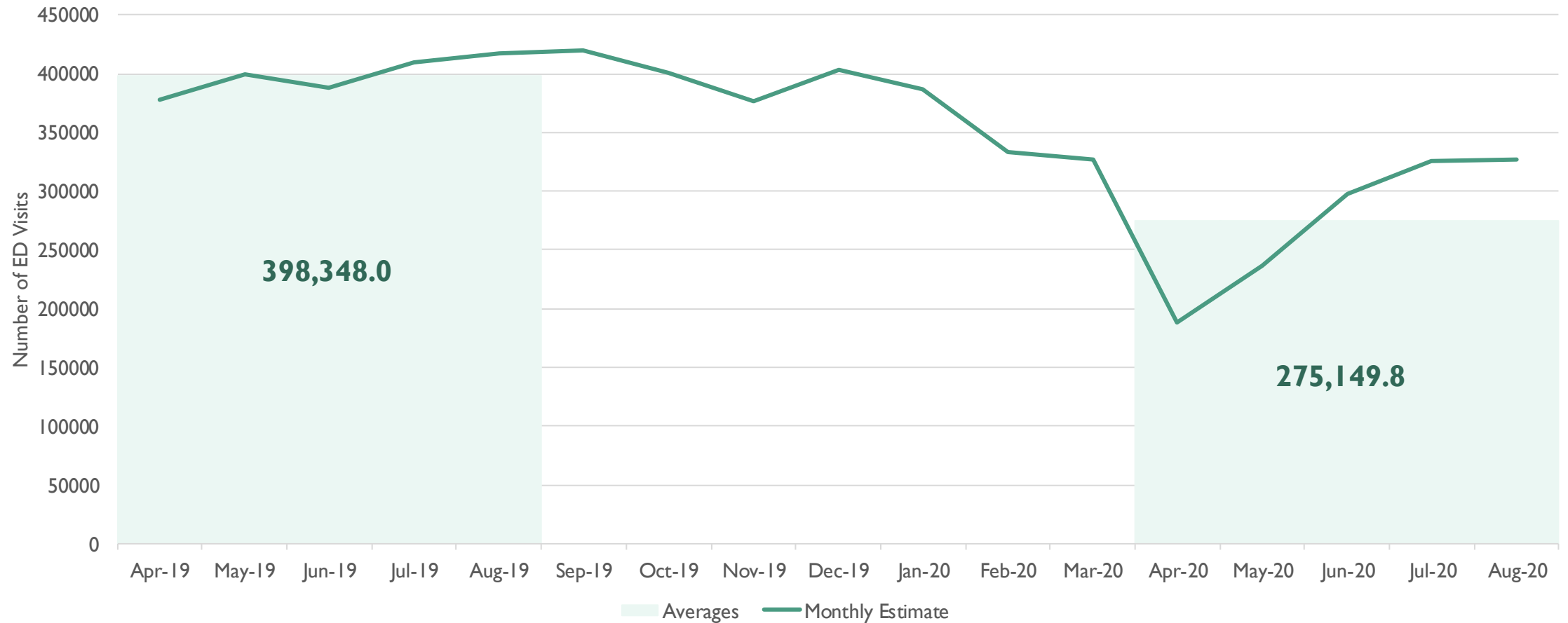
Michigan, April 2019-August 2020



↑ **44.5% increase** comparing pandemic period (Apr-Aug 2020) to same time period in 2019

ED RESULTS: VISITS FOR ALL CAUSES

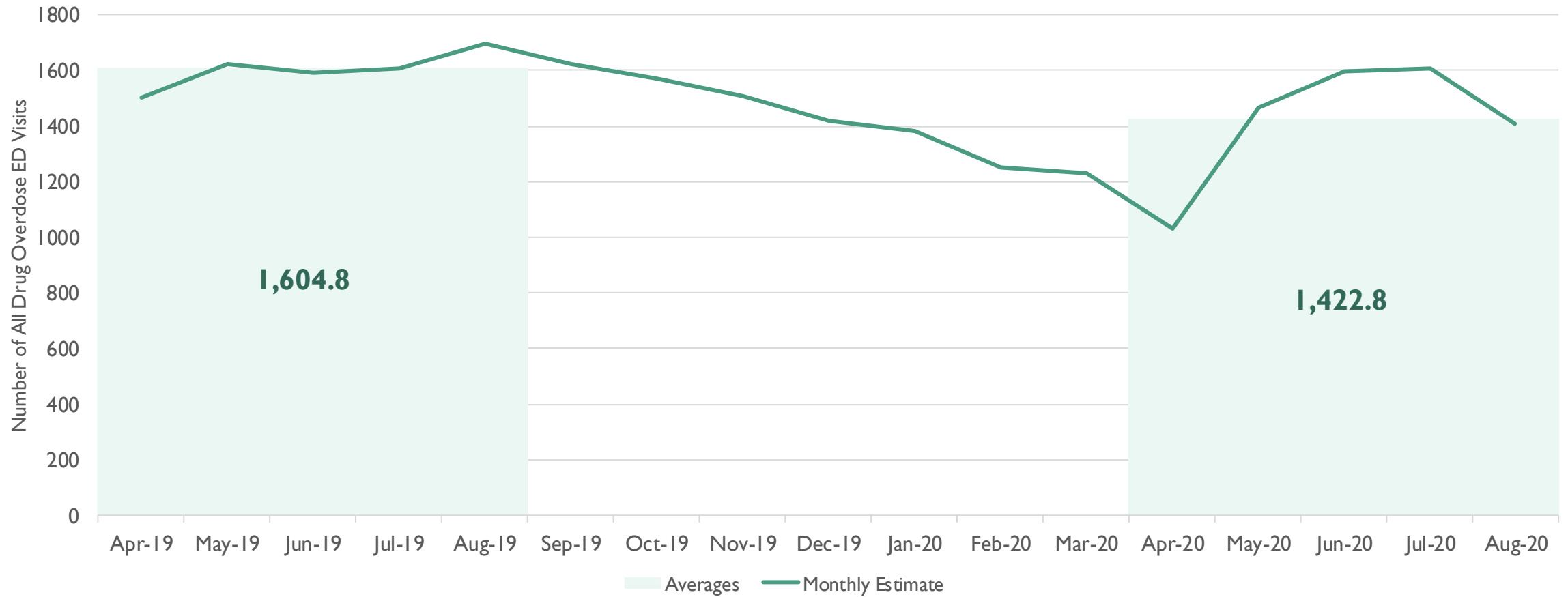
Michigan, April 2019-August 2020



↓ **30.9% decrease** comparing pandemic period (Apr-Aug 2020) to same time period in 2019

ED RESULTS: VISITS FOR ALL DRUG OVERDOSES

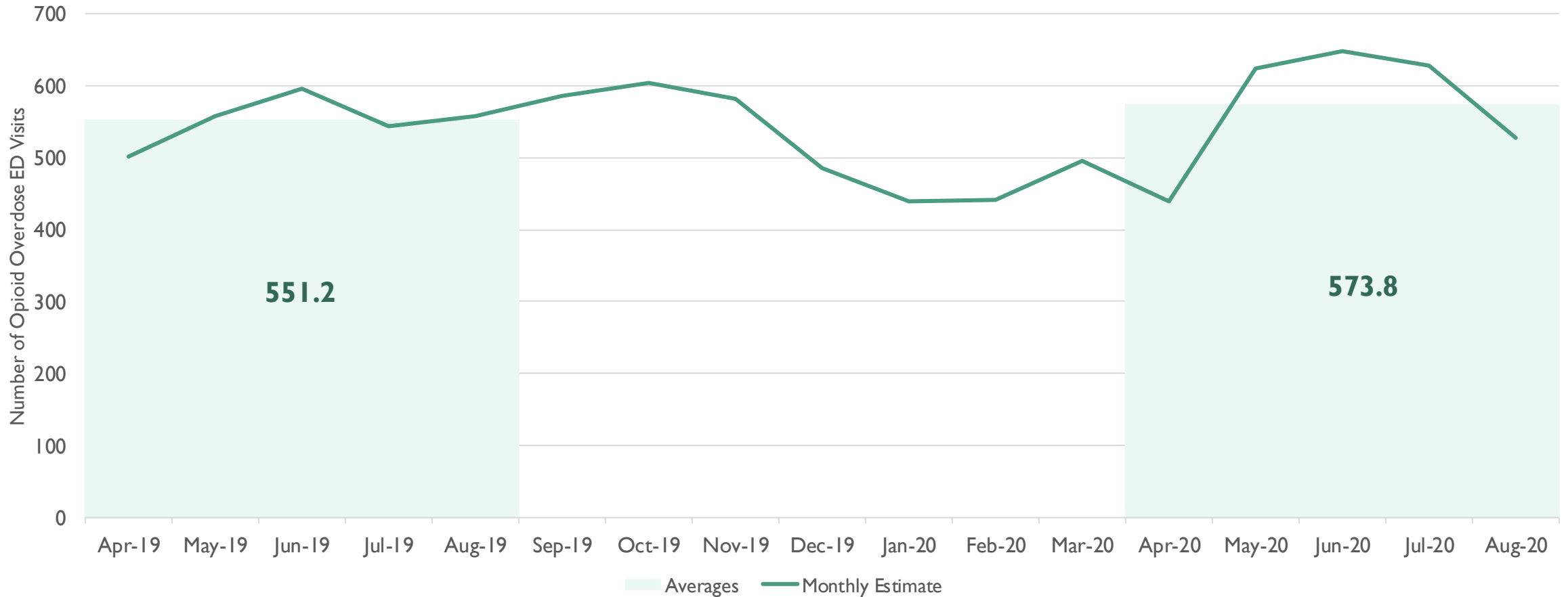
Michigan, April 2019-August 2020



↓ **11.3% decrease** comparing pandemic period (Apr-Aug 2020) to same time period in 2019

ED RESULTS: VISITS FOR OPIOID OVERDOSES

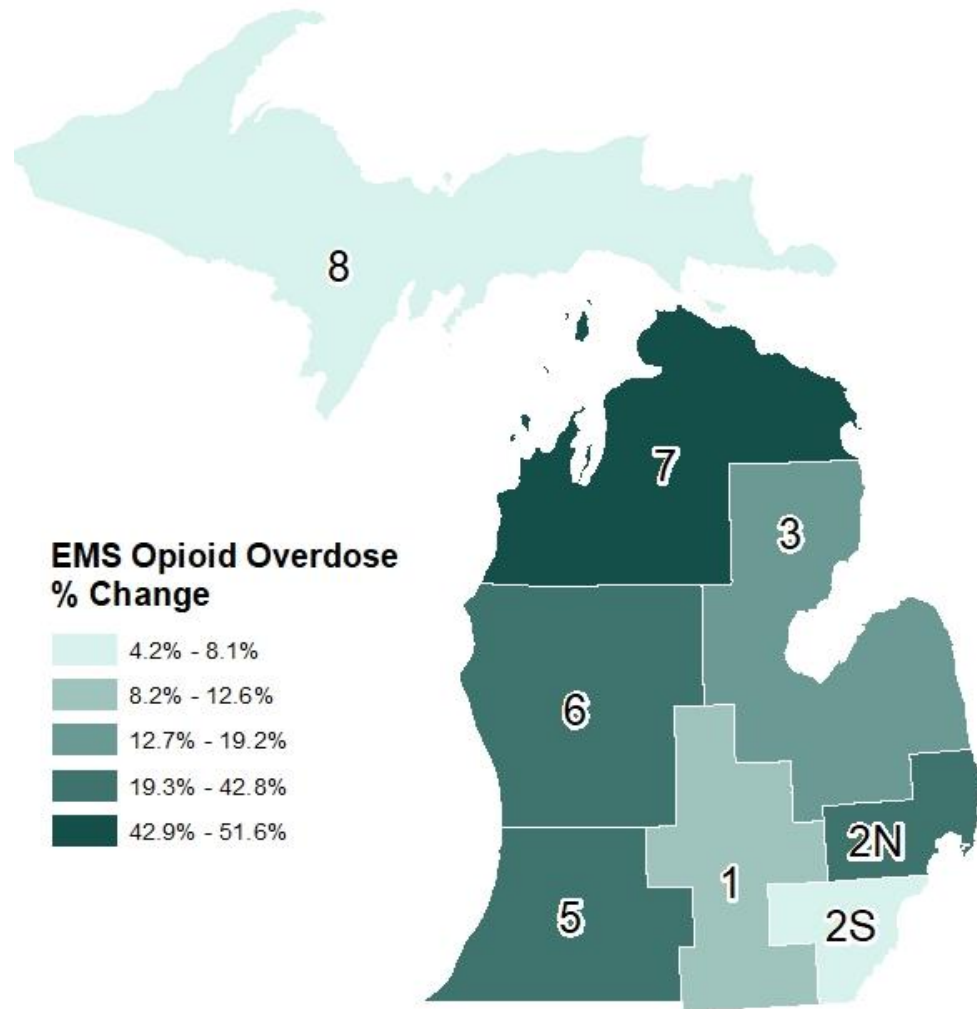
Michigan, April 2019-August 2020



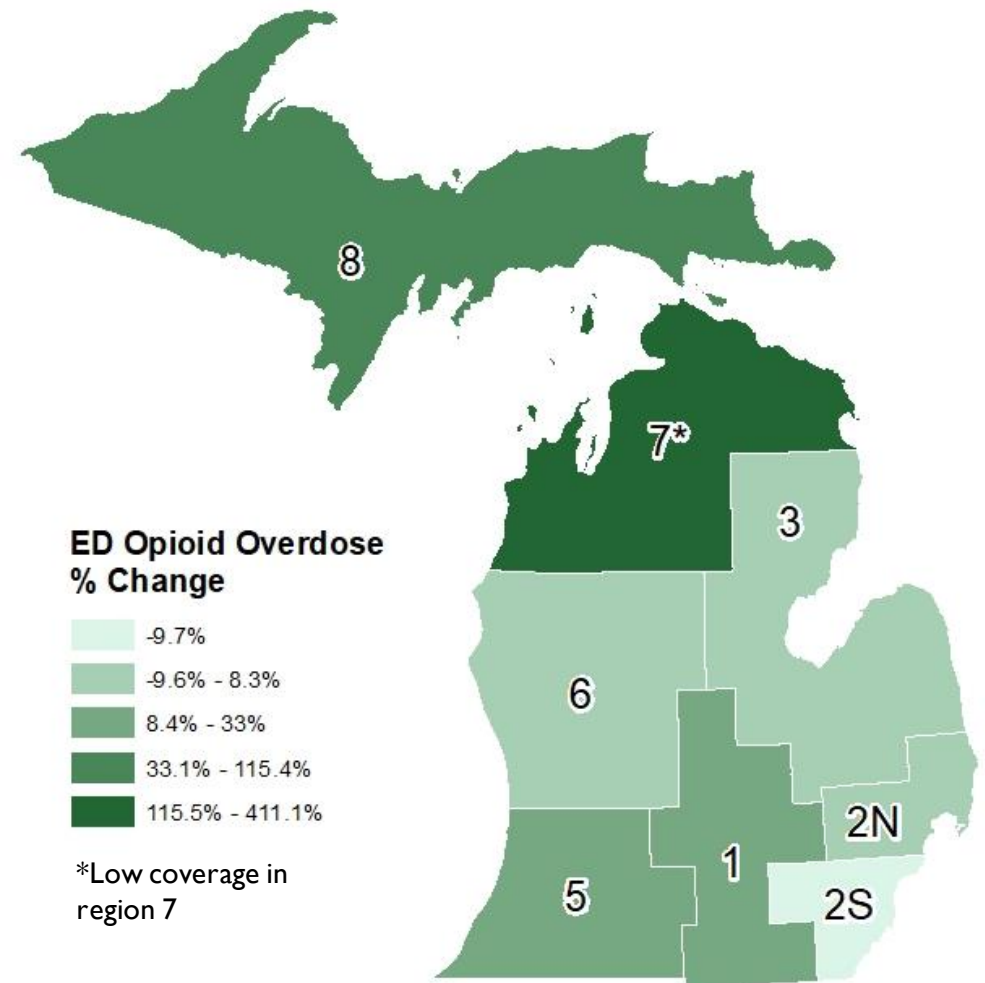
↑ **4.1% increase** comparing pandemic period (Apr-Aug 2020) to same time period in 2019

REGIONAL TRENDS

OPIOID OVERDOSE EMS RESPONSES



OPIOID OVERDOSE ED VISITS



DEMOGRAPHIC TRENDS



- Largest increases in opioid overdose EMS responses seen in:
 - Men (32.1%)
 - 0-24-year-olds (34.7%)
 - 25-44-year-olds (38.2%)
 - Other race (33.3%)
 - White race (25.2%)
- Largest increases in opioid overdose ED visits seen in:
 - Men (16.7%)
 - Other race (55.7%)

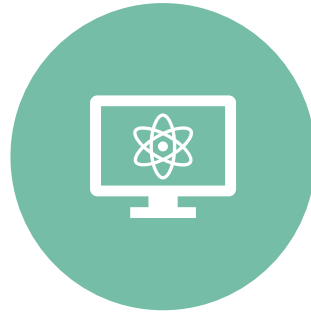
CONCLUSIONS

- Opioid overdoses are increasing during COVID-19 (as evidenced by EMS data)
- Opioid overdose patients may be avoiding care in the ED
- We expect we will see increases in overdose deaths when finalized death data becomes available

ACTIONS TAKEN



PRESS RELEASE



PUBLICATION
(IN REVIEW)



INCREASED
NALOXONE
ACCESS



CONTINUED
MONITORING AND
DISSEMINATION

QUESTIONS?



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