

## Michigan's Opioid Use Landscape (July 2025 Update)

By: John Bulat

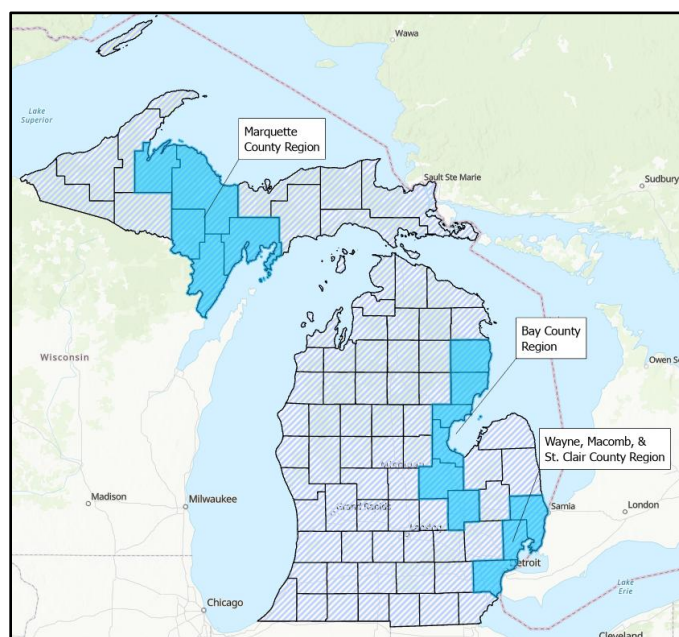
## Introduction

In 2023, in partnership with the Overdose Prevention Engagement Network (OPEN), Poverty Solutions at the University of Michigan produced a white paper and landscape map that examined data related to opioid use, opioid use disorder (OUD), and poverty in Michigan in 2019. Based on this data, three hotspot county clusters within the state were identified as areas with particularly high opioid usage indicators. In this white paper, these hotspots are re-examined using the most recent data and other emerging opioid-use-related hotspots in the state are identified.

While this work is similar to the [Michigan Substance Use Vulnerability Index](#) that examines substance use disorder indicators, demographic indices, and recovery resources, this paper focuses strictly on opioid and OUD-related indicators and relies on individual demographic measures.

## Review of 2019 White Paper County Hotspot Clusters

In the [previous white paper](#), three hotspot county clusters were identified within the state based on demographic information connected to OUD as well as other indicators of mental and physical health, opioid-related outcomes, and the availability of health and addiction care resources within the counties. The three hotspot clusters were the Bay County region, the Marquette County region, and the Wayne, Macomb, and St. Clair County region (see map below).



In the Lower Peninsula (L.P.), the Bay County and Wayne, Macomb, and St. Clair County regions were characterized by high rates of fatal opioid overdoses, emergency department visits, and hospitalization related to nonfatal opioid poisonings.

In the Marquette County region in the Upper Peninsula (U.P.), these types of extreme crisis indicators were not as pronounced, but indications of opioid use disorder were evident by high opioid-related treatment admission rates within the area, particularly in Baraga County, which is directly adjacent to Marquette County. EMS naloxone administration rates were also high in Baraga County compared to the rest

of the U.P., and medication-assisted treatment (MAT) facilities were scarce region-wide.

## Update on Previous Hotspots

Recent data<sup>1</sup> indicate that the previous hotspot county clusters continue to demonstrate higher levels of OUD-related activity. We begin our review in the Bay County region, on the eastern side of the L.P., which stretches from Alcona County in the north down to Genesee County in the south.

### Bay County Region

In the last white paper, using data from 2019, Iosco and Genesee Counties had some of the highest age-adjusted death from opioid poisoning rates per 100,000 population in the state, trailing only Wayne County in this metric<sup>2</sup>. Unfortunately, according to the Michigan Department of Health and Human Services' [MiTracking](#) data, in 2022 both counties had higher rates than they did in 2019. These counties now surpass Wayne County in terms of the highest statewide rates, with Iosco's rising from 34.5 to 44.9 and Genesee's increasing from 34.5 to 48.5<sup>3,4</sup>.

**2022 Top 10 Counties**  
**Age-Adjusted Fatal Opioid Poisoning**  
**(Rate per 100,000)**

County	2022 Rank	2022 Rate	2019 Rate
Genesee	1	48.5	35.4
Iosco	2	44.9	34.5
Manistee	3	44.2	Suppressed: Counts <6
Wayne	4	43.8	35.7
Ingham	5	39.6	28.1
Muskegon	6	35.0	26
Calhoun	7	32.4	26.1
Berrien	8	32.1	14
Mason	9	31.4	Suppressed: Counts <6
Shiawassee	10	30.1	17.5



<sup>1</sup> Data availability varies by source. Therefore, depending on the indicator, the most recent data could be from 2022, 2023, or 2024. See the Appendix for more detailed information on data sources and years.

<sup>2</sup> Among the counties for which this data was not suppressed. Same for all data throughout the paper. Fatal opioid poisoning data provided by MDHHS's MiTracking.

<sup>3</sup> Manistee County, which will be highlighted later in the paper, also had a higher rate for this category (44.2) than Wayne County.

<sup>4</sup> Encouragingly, according to the [Michigan Overdose Data to Action Dashboard \(MODA\)](#), in 2023 Genesee County experienced a decline in its synthetic opioid-involved overdose death rate per 100,000 population (crude rate), down from approximately 42 to 39, while Iosco County was not listed in the top 10 counties statewide for this rate. The crude rates were constructed using synthetic opioid-involved death counts from MODA and CDC PLACES population data.

In 2019, Iosco and Genesee counties also ranked highly statewide in age-adjusted emergency department visits for nonfatal opioid poisonings per 100,000 population, with Iosco County having the highest rate in the state (211.3) and Genesee County ranking fifth (160.7). The latest data available from MDHHS's MiTracking system is for 2020, and the dataset notes decreases in this category for both counties in that year (Iosco – 139.6, Genesee – 149.8). Both counties still ranked in the top 10 statewide for this category but are ninth (Genesee) and 10th (Iosco) in the ranking. Additionally, two other counties in the region, Bay County and Arenac County, experienced increases in this measure. They ranked fourth and fifth in the state in 2020, indicating persistent ongoing OUD activity in the region between years.

**2023 Top 10 Counties  
EMS Response Rates for  
Probable Opioid Overdoses  
(Rate per 100,000)**

County	2023 Rank	2023 Rate	2019 Rate
Muskegon	1	281.1	189.0
Wayne	2	219.3	210.6
<b>Genesee</b>	<b>3</b>	<b>206.1</b>	229.2
Ingham	4	195.7	169.3
Calhoun	5	181.6	206.5
<b>Bay</b>	<b>6</b>	<b>173.4</b>	79.5
<b>Saginaw</b>	<b>7</b>	<b>146.9</b>	120.2
Manistee	8	146.6	118.1
Kalamazoo	9	145.0	130.2
Jackson	10	143.6	150.1

In the absence of more recent data for this category, it is instructive to consider EMS response rates for probable opioid overdoses, for which there is 2023 data<sup>5</sup>. Based on this data, three counties in the Bay County region rank within the top 10 statewide for EMS responses to probable opioid overdoses (see table on left). Genesee County ranks third (206.1 responses per 100,000 population), Bay County ranks sixth (173.4), and Saginaw County ranks seventh (146.9).

In addition, Bay and Genesee counties, which were among the top five counties statewide for heroin and prescription opioid treatment admission rates in 2019, continued to be among the top five counties statewide for this metric in 2024. Given this and the data noted above, opioid-related activity appears to continue to be concentrated in this hotspot.

Although this concentration still exists, socio-economic indicators in the region are improving. Unemployment and poverty rate data recently became available for 2023. It shows that between 2019 and 2023, unemployment and poverty rates decreased for most of the counties in the hotspot, with Iosco and Saginaw counties being the notable exceptions. Encouragingly, the counties saw a 5 to 7.5 percentage point drop in adults 18 to 64 years old who reported that they lacked health insurance (perhaps due to increased employment) between 2019 and 2022<sup>6</sup>. Also, residents reported improved physical health in almost all the counties, though in four of the six counties, residents reported slightly poorer perceived mental health<sup>7</sup>.

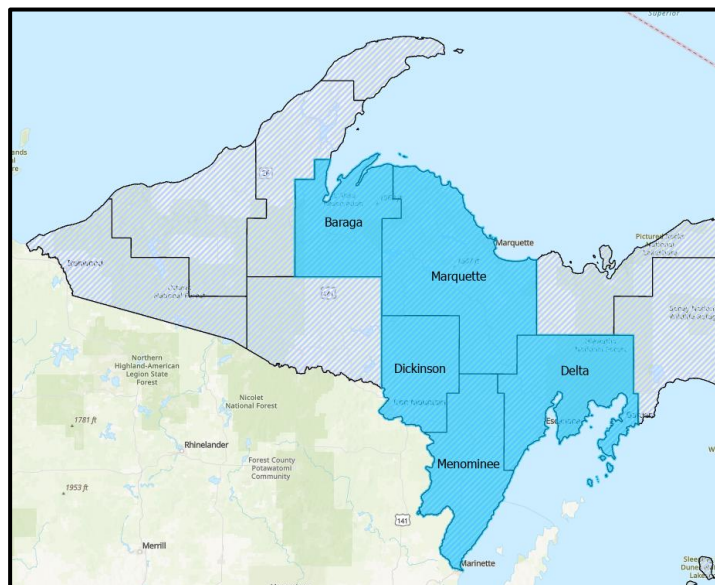
<sup>5</sup> Note – These rates are based on reported counts and are not age-adjusted.

<sup>6</sup> This health insurance coverage metric is the [CDC's PLACES](#) "estimate for age-adjusted prevalence of current lack of health insurance among adults aged 18-64 years." The most recent data is for 2022.

<sup>7</sup> Both the physical and mental health indicators, which were taken from the [CDC's PLACES](#) dataset, measure the percentage of adults 18 and over who reported that their mental or physical health was "not good for 14 or more days during the past 30 days". Those who replied in the affirmative were adjudged to have frequent distress, either physically or mentally. The most recent data is for 2022.

## Marquette County Region

When the previous analysis examined the Marquette County region, it did not stand out due to high rates of deaths or hospitalizations from opioid poisoning like those found in the other hotspot regions. Instead, one of its counties (Baraga) had the highest statewide admissions rate for opioid treatment (prescription opioids and heroin) per 1,000 population (7.1). At the time, Baraga County also had the highest EMS naloxone administration rate in the Upper Peninsula (U.P.). Two of the counties in this region (Dickinson and Delta) also ranked within the top 10 statewide for per person opiate prescription rates.



More recent data suggests that this last trend continues to hold. Although Dickinson and Delta counties saw some decrease in opiate prescription rates per person in 2022 (down to 1.1 from 1.5 and to 0.9 from 1.1, respectively), they continued to be in the top 10 counties statewide in this metric.<sup>8</sup> Encouragingly, unlike 2019, in 2024 Baraga County no longer led the state in the rate of admissions for opioid treatment per 1,000 population. In fact, their rate was no longer in the top 25 counties statewide for this metric, dropping down to a rate of 1.5 in 2024 from a high of 7.1 in 2019. That said, data from the [Michigan System for Opioid Overdose Surveillance \(SOS\)](#) indicates that as of May 2025, Baraga County still has a high rate of EMS naloxone administrations per 100,000 residents (48) compared to most of the counties in the U.P. as well as the rest of the counties in the state.

Given all this, while rates of treatment have gone down significantly in Baraga County, the larger Marquette County region is still exhibiting some signs of high levels of opioid use disorder though its crisis indicator rates are not as high as those found in other parts of the state.

Turning to demographic and socioeconomic factors, the Marquette County region experienced similar changes as those experienced in the Bay County region between 2019 and 2022/2023. Poverty levels declined in four of the five counties, but there were increases in the unemployment rate for two of the five counties in the region. The increase was slight in one of the counties (0.2 percentage point increase in Baraga County); however, there was a 1.1-point increase in Menominee County (from 4.5 to 5.6).

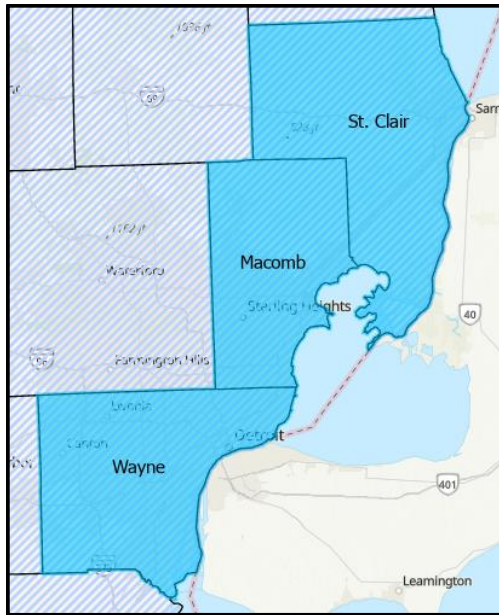
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<sup>8</sup> Ogemaw County, though still ranked first statewide in this category in 2022, also experienced a substantial decrease during this timeframe, down from 2.5 opiate prescriptions per person in 2019 to 1.7 in 2022.



Residents reported less frequent physical distress and more frequent mental distress in 2022 than they did in 2019 in the Marquette County region. Here, too, there was a substantial decrease between 2019 and 2022 in the percentage of the adult population lacking health insurance. On average, 12.5% of adults between 18 and 64 years old lacked coverage in 2019. In 2022, the average had decreased to 6.3%<sup>9</sup>.

## Wayne, Macomb, and St. Clair County Region



As noted in the previous white paper, in 2019, the Wayne, Macomb, and St. Clair County region was characterized by some of the highest statewide age-adjusted rates for opioid-related deaths, hospitalizations, and emergency department visits. Both Wayne and Macomb counties ranked within the top 10 statewide for these three indicators and St. Clair County ranked within the top 10 for deaths and hospitalizations.

In 2019, Wayne County ranked first statewide in the rate of deaths due to opioid poisonings and second in emergency department visits due to nonfatal opioid poisonings. Although EMS response rates for probable opioid overdoses were not considered in the previous white paper, it is worth noting that both Wayne and Macomb counties ranked within the top 10 statewide for

this category in 2019 as well (second and 10<sup>th</sup>, respectively).

More recent data suggests that all three counties continue to experience high rates of opioid-related health incidents, with Wayne and Macomb counties seeing increases in the age-adjusted rates of fatal opioid poisonings. This increase was most remarkable in Wayne County where the rate rose from 35.7 per 100,000 people in 2019 to 43.8 in 2022, ranking fourth in the state for this metric. Macomb County's rate increased by a smaller margin (from 24.7 to 29.7) and fell out of the top 10 statewide, though just barely as it ranked 11<sup>th</sup> in the state in 2022.

In 2023, EMS response rates for probable opioid overdoses continued to be high in Wayne County (219.3 per 100,000 population). This was the second highest rate in the state and an increase from the county's 2019 rate (210.6). Both Macomb and St. Clair counties experienced decreases in this rate between 2019 and 2023, with Macomb County falling outside the top 10 statewide in this metric and St. Clair County just within the top quarter statewide (ranked 19<sup>th</sup>). Further, as in 2019, both Macomb and Wayne counties were ranked within the top 10 counties statewide for their rate of opioid

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<sup>9</sup> These changes in health insurance are likely due to Medicaid expansion and pandemic eligibility and recertification policies.

treatment admissions per 1,000 residents in 2024, which is partially impacted by greater availability of treatment.

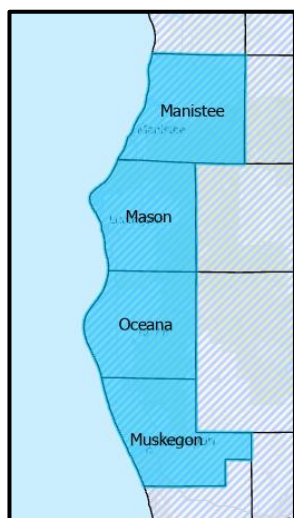
Given these high rankings statewide for each of the indicators listed, Wayne, Macomb, and St. Clair counties continue to be hotspots for opioid use. This is the case even though there were positive changes in certain socioeconomic and health-related measures between 2019 and 2022/2023.

Poverty levels decreased in each county. There was a decrease in those experiencing episodes of physical distress in Wayne and St. Clair counties between 2019 and 2022 (Macomb County had a 0.1 percentage point increase). There were also decreases in the percentage of residents between 18 and 64 years old who lacked health insurance within each county. There were no consistent trends in employment across all three counties. Unfortunately, as seen in the other hotspots, each county had an increase in the percentage of adults experiencing episodes of mental distress.

## Summary of Previous Hotspot Regions

As noted in the individual hotspot reviews, each region experienced somewhat similar changes between 2019 and 2022/2023 in terms of socioeconomic and health-related measures. In almost all counties, reports of mental distress increased while reports of physical distress decreased. Unemployment decreased in the hotspots as did poverty levels. Across each county in each hotspot, there were also decreases in the percentage of adults 18 to 64 years old who lacked health insurance.

Despite improvements in socioeconomic indicators and progress for some opioid-related measures in some individual counties in hotspot areas, these areas continue to stand out as areas with higher rates of opioid use and OUD, with many of the counties continuing to rank in the top 10 statewide for individual metrics. Given this, these hotspots are worthy of continued intervention-related activities.



## Additional Hotspot Areas

In addition to the hotspots above, another concentration of counties is emerging along the western coast of the L.P., starting in Muskegon County and traveling north to Manistee County (see map).

These counties have seen increases in crisis indicators since 2019 and now have multiple indicators that rank within the top 10 statewide in 2022 and 2023. Manistee County, for instance, ranked third statewide in 2022 in the age-adjusted rate of deaths from opioid poisoning per 100,000 population (44.2), behind only Genesee and Iosco counties<sup>10</sup>. Muskegon (35.0) and Mason (31.4) counties were also ranked in the top 10 counties statewide for this metric (sixth and ninth, respectively).

<sup>10</sup> In 2019, Manistee County's fatal opioid overdose rate was not available due to data suppression (fewer than 6 incidents occurred).

Further, in 2023, Muskegon County ranked first statewide in EMS response rates for probable opioid overdoses at 281.1 per 100,000 population, surpassing Wayne County (219.3) and Genesee County (206.1) in this metric<sup>11,12</sup>. This rate is 49% higher than the county's rate in 2019 (189.0). Additionally, Manistee and Muskegon counties were also among the top 10 statewide counties for admissions rates for opioid treatment (prescription opioids and heroin) per 1,000 population in 2024, with Manistee ranked first statewide in this metric in 2024 (see table).

Turning to socioeconomic indicators, unemployment was slightly higher on average in this cluster in 2023 than it was in 2019, with Mason and Muskegon counties both experiencing slight increases in unemployment while Manistee and Oceana counties saw little or no change. While most of the counties experienced a decrease in the percentage of families below the federal poverty level between these years, Manistee County's poverty rate went up, albeit slightly.

Given its ranking statewide in multiple crisis and non-crisis opioid-related measures and considering the sizeable changes in many of these rates since 2019, the Muskegon-Manistee County region should be considered a hotspot area for opioid use.

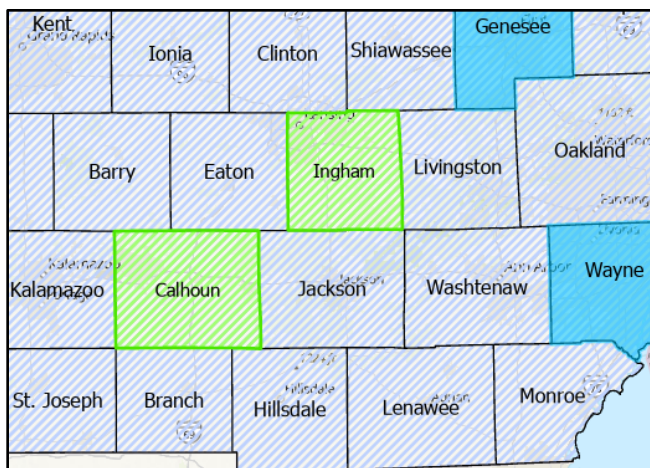
**2024 Top 10 Counties  
Prescription Opioid and Heroin  
Treatment Admissions  
(Rate per 1,000)**

County	2024 Rank	2024 Rate	2019 Rate
<b>Manistee</b>	1	<b>4.0</b>	3.7
Genesee	2	3.4	4.7
Bay	3	2.9	5.7
Wexford	T4	2.3	2.3
Roscommon	T4	2.3	2.1
Ingham	T4	2.3	3.9
<b>Muskegon</b>	T4	<b>2.3</b>	4.3
Wayne	T8	2.2	4.3
Macomb	T8	2.2	5.1
Calhoun	T8	2.2	3.6

## Individual Counties

While not necessarily constituting a geographic cluster, two individual counties in the L.P, Ingham and Calhoun, are worth noting as opioid-related hotspots (see map).

Both counties ranked within the top 10 counties statewide in the age-adjusted fatal opioid poisoning rate in 2022 as well as in 2019, with rates increasing between time periods. Both counties were ranked within the top 10 statewide for EMS response rates for probable opioid overdoses in 2023. Both counties were also in the top 10 counties statewide for heroin and prescription opioid treatment admission rates in 2024. Given these high rates, both counties are worthy of additional harm reduction interventions.



<sup>11</sup> Again, please note this is the crude rate, not the age-adjusted rate.

<sup>12</sup> Genesee County and Wayne County had the highest two rates for this indicator in 2019, 229.2 and 210.6, respectively.

## Conclusion

Data from the [Michigan Department of Health and Human Services](#) show that annual opioid-involved overdose deaths in Michigan decreased 5% between 2021 and 2022 (from 2,539 to 2,422) as well as 6% between 2022 and 2023 (from 2,422 to 2,287). Still, as covered in detail above, certain counties and groups of counties continue to evidence higher rates of opioid-related crisis indicators (such as overdose deaths and hospitalizations) and non-crisis indicators (opioid-treatment admission rates) than others. Given these concentrations, on-going interventions in these counties are not only encouraged but continue to be needed.

## About the author

John Bulat is a data and policy analyst at Poverty Solutions at the University of Michigan, an initiative that partners with policymakers and community groups to find new ways to prevent and alleviate poverty through action-based research.



## Appendix

Data Categories	Data Source	Data Year(s)
Age-Adjusted Rates for Opioid-Related Emergency Department Visits, Hospitalizations, and Deaths	MDHHS's <a href="#">Michigan Environmental Public Health Tracking (MiTracking) dataset</a>	2020, 2022
EMS Response to Probable Opioid Overdose	<a href="#">Michigan Overdose Data to Action Dashboard (MODA)</a> , Centers for Disease Control and Prevention (CDC) <a href="#">PLACES dataset</a> , and American Community Survey 5-Year Estimates (via <a href="#">Social Explorer</a> )	2019, 2023
Fatal Opioid Overdoses (All Opioids)	<a href="#">Michigan Department of Health and Human Services</a>	2021-2023
Opiate Prescriptions Per Person	LARA <a href="#">Annual Drug Utilization Report</a> and Centers for Disease Control and Prevention (CDC) <a href="#">PLACES dataset</a>	2022
Opioid and Heroin Treatment Rate	MDHHS's <a href="#">Treatment Episode Data Set (TEDS)</a> , Centers for Disease Control and Prevention (CDC) <a href="#">PLACES dataset</a> , and American Community Survey 5-Year Estimates (via <a href="#">Social Explorer</a> )	2019, 2024
Population, Age-Adjusted rates for Health Insurance Coverage, Poor Mental Health, and Poor Physical Health	Centers for Disease Control and Prevention (CDC) <a href="#">PLACES dataset</a> (2024 release)	2022
Synthetic Opioid-Involved Overdose Deaths	<a href="#">Michigan Overdose Data to Action Dashboard (MODA)</a>	2023
Unemployment, Median Household Income, and Poverty	American Community Survey (ACS) 5-Year Estimates (via <a href="#">Social Explorer</a> )	2019-2023