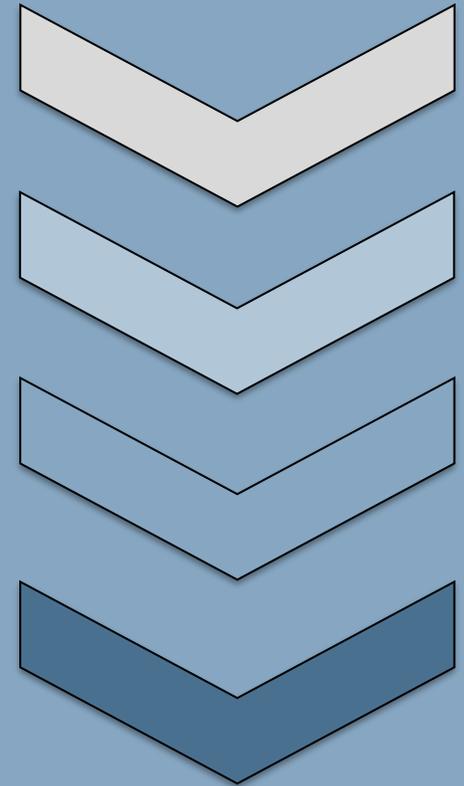


THE MISSISSIPPI OPIOID AND HEROIN DATA COLLABORATIVE



Provisional Data Report First Quarter of 2020

Mississippi Board of Pharmacy

Mississippi Bureau of Narcotics

Mississippi State Department of Health

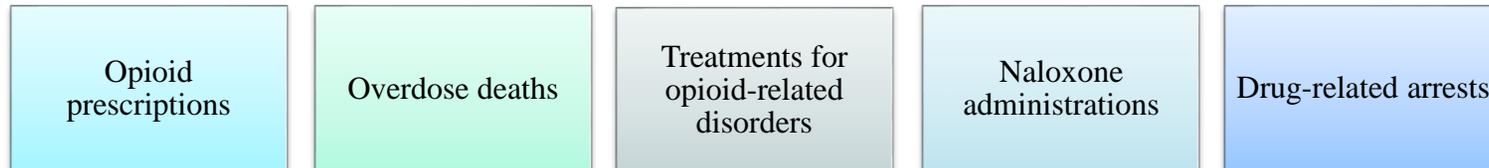
Mississippi Department of Mental Health

The University of Southern Mississippi

6/17/2020

DATA AND REPORT OVERVIEW

- This report summarizes data on opioid prescriptions dispensed in Mississippi, fatal drug overdoses reported to the Mississippi Bureau of Narcotics, naloxone administrations by Emergency Medical Services for suspected overdoses, drug-related arrests, and treatment services for opioid-related disorders within facilities certified by the Mississippi Department of Mental Health.
- The goal of this report is to provide timely and accurate information to the public and policy makers on key indicators measuring the scope of the opioid epidemic in Mississippi. The findings reported here, therefore, aim to inform and support data-driven decision-making. This report is updated quarterly to foster continuous quality improvement.
- All of the statistics featured in this report are based on available data, and data availability limitations vary somewhat across reported indicators. The Data Collaborative strives to present the latest data in a quarterly format, but some of the data sources used in this report are only released on an annual basis. Detailed information regarding each of the data sources used in the report is presented in the technical notes on page 12.



ACKNOWLEDGMENTS

This report is the product of a collaborative effort by the following state agencies: Mississippi State Department of Health, Mississippi Department of Mental Health, Mississippi Bureau of Narcotics, Mississippi Board of Pharmacy, and The University of Southern Mississippi's School of Social Work. The original formatting for these reports was developed by Manuela Staneva, MPH, Epidemiologist, Mississippi State Department of Health.

This project was supported by Grant No. 2017-PM-BX-K036 awarded by the Bureau of Justice Assistance. The Bureau of Justice Assistance is a component of the Department of Justice's Office of Justice Programs, which also includes the Bureau of Justice Statistics, the National Institute of Justice, the Office of Juvenile Justice and Delinquency Prevention, the Office for Victims of Crime, and the SMART Office. Points of view or opinions in this document are those of the Mississippi Opioid and Heroin Data Collaborative and do not necessarily represent the official position or policies of the U.S. Department of Justice.

OPIOID PRESCRIPTIONS AND DOSAGE UNITS DISPENSED

FINDINGS

- **Opioid Prescriptions:** During Q1 2020, over 599,000 opioid prescriptions were dispensed in Mississippi.
 - On average, 6,591 opioid prescriptions were dispensed every day during this quarter.
 - There was a 6.9% decrease in opioid prescriptions dispensed compared to Q1 2019.
 - In the last 91 days (January-March), there were enough opioid prescriptions dispensed for approximately 1 in 5 Mississippians to have 1 prescription.
- **Opioid Dosage Units:** During Q1 2020, more than 30.7 million opioid dosage units (e.g., pills) were dispensed in Mississippi.
 - On average, approximately 337,700 dosage units were dispensed each day during this quarter.
 - Compared to Q1 2019, the number of dosage units dispensed decreased by 7.0%, or approximately 2.3 million pills.
 - In the last 91 days (January-March), there were enough opioid dosage units dispensed for each Mississippian to have a supply of 10 dosage units.

Figure 1. Number of Opioid Prescriptions Dispensed in MS, Q1 2019 - Q1 2020

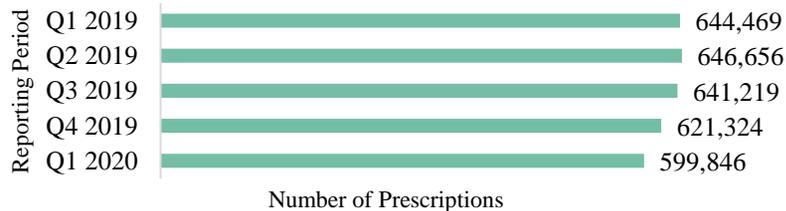


Figure 2. Number of Opioid Dosage Units Dispensed in MS, Q1 2019 - Q1 2020

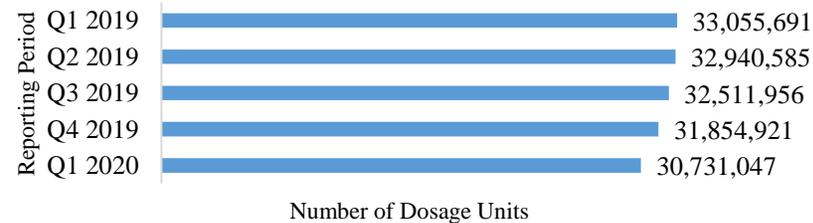
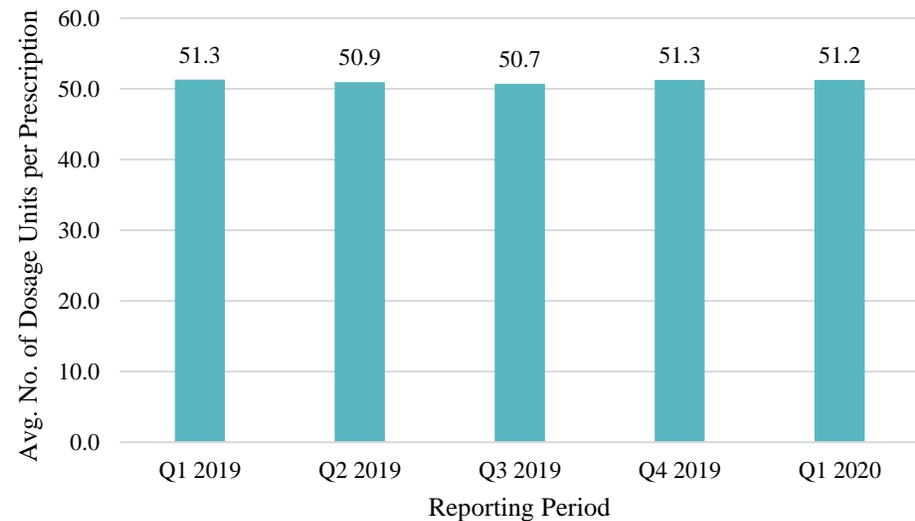


Figure 3. Average Number of Opioid Dosage Units per Opioid Prescription in MS, Q1 2019 - Q1 2020



CONSIDERATIONS: This report identified a considerable decline in the number of opioid prescriptions from 2019. Such downward movement could be driven, in part, by statewide educational initiatives. Nonetheless, Mississippi’s prescription rates remain high and warrant continuous educational outreach and preventive efforts. It should also be noted that The Mississippi State Board of Medical Licensure, The MS Board of Nursing, and The MS Board of Dental Examiners revised their regulations on prescribing opioids and other controlled substances in October 2018, August 2019, and September 2019, respectively. Information about the new regulations can be found at The Mississippi State Board of Medical Licensure’s [website](#),¹ The MS Board of Nursing’s [website](#),² and The MS Board of Dental Examiners’s [website](#).³

SUSPECTED DRUG OVERDOSE DEATHS

FINDINGS

- In the first quarter of 2020, 24 (80.0%) of the 30 suspected overdose deaths reported to the Mississippi Bureau of Narcotics (MBN) were opioid-related. The numbers of opioid-related deaths and total overdose deaths decreased by 20.0% and 41.2%, respectively, from Q1 2019 to Q1 2020.
- The number of deaths involving heroin increased from 11 in Q1 2019 to 14 in Q1 2020, representing a 27.3% change.

Figure 4. Percentage of Total Suspected Overdose Deaths by Type of Involved Substance, MS, Q1 2019 - Q1 2020

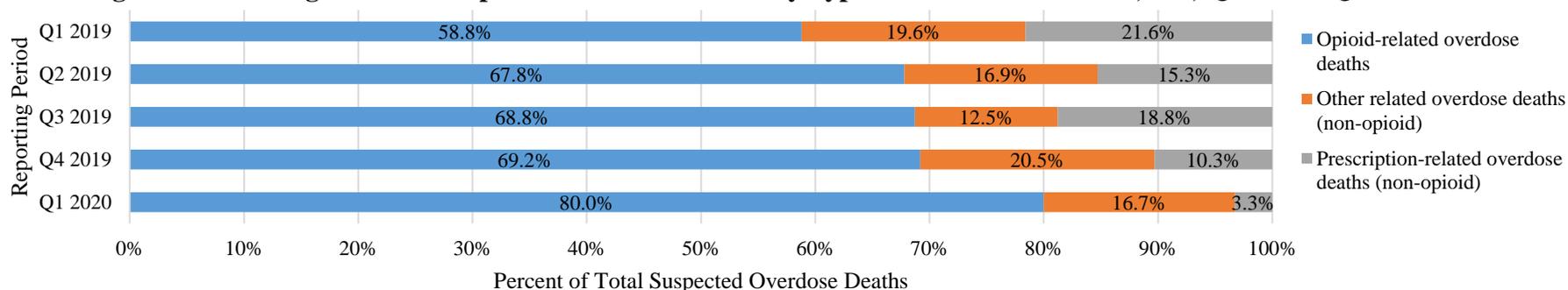


Table 1. Number of Suspected Overdose Deaths Reported to MBN by Type of Involved Substance, MS, Q1 2019 – Q1 2020

	Q1 2019	Q2 2019	Q3 2019	Q4 2019	Q1 2020
Prescription opioid related	11	17	7	6	6
Fentanyl related	3	1	6	5	3
Fentanyl and prescription related	5	5	8	3	1
Heroin related	7	12	9	11	6
Heroin and prescription related	1	1	1	2	1
Heroin and fentanyl related	3	4	2	0	7
Total opioid related overdose deaths	30	40	33	27	24
Other related overdose deaths	10	10	6	8	5
Prescription related overdose deaths	11	9	9	4	1
Total non-opioid related overdose deaths	21	19	15	12	6
Overall total suspected overdose deaths	51	59	48	39	30

CONSIDERATIONS: The accurate assessment of drug-related fatalities depends on complete and high quality data. The reliability of mortality data, however, is impacted by several constraints such as insufficient resources, training, or time for performing thorough death investigations. In addition, Mississippi lacks a centralized system for connecting different entities involved in the compilation and reporting of mortality data. Efficient collaboration among state agencies, educational outreach for coroners, and standardized protocols for drug overdose investigation and reporting are measures that can improve drug-related mortality surveillance.⁴ It should also be noted that the MBN does not include a death in the count until a toxicology report has been completed; therefore, currently pending cases will result in increased numbers in the future.

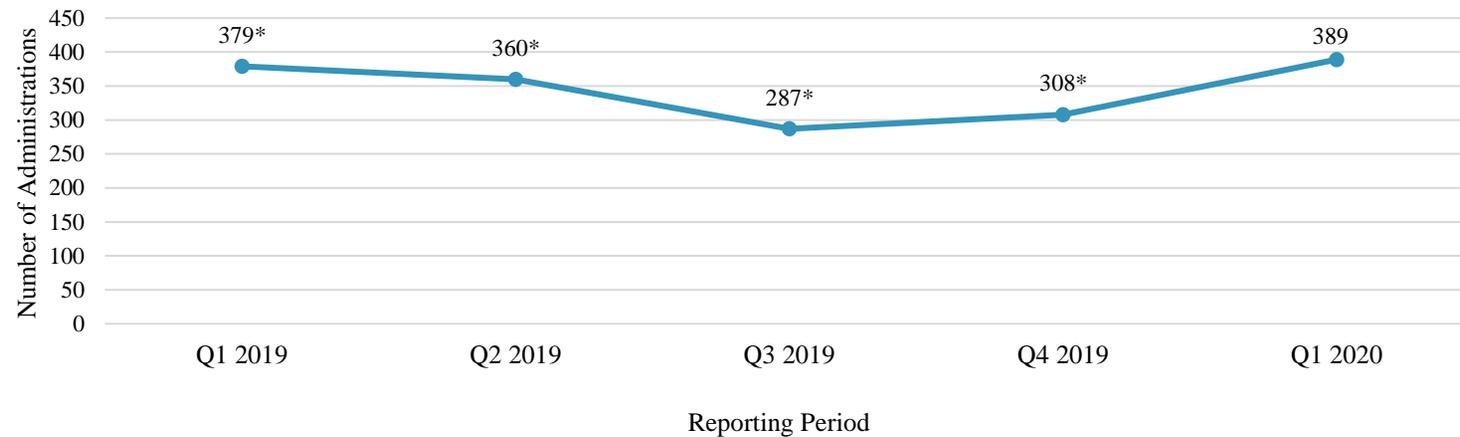
NOTE: Five (5) of the 30 overall total suspected overdose deaths also involved methamphetamine, as did 3 of the 24 total opioid-related overdose deaths.

EMS NALOXONE ADMINISTRATIONS

FINDINGS

- Emergency Medical Services (EMS) data revealed that naloxone was administered 389 times during Q1 2020, which is a 2.6% increase compared to Q1 2019.
- On average, 129 naloxone administrations were reported in Mississippi each month during the first quarter of 2020.
- Of the individuals to whom naloxone was administered, 53% were male, and 65% were white. The median age was 45 years.
- Approximately 86% of the 388 individuals who provided residence information were administered naloxone in their home county.

Figure 5. Naloxone Administration by EMS: Number of Cases, MS, Q1 2019* - Q1 2020



*Transition in data reporting system may lead to future updates

CONSIDERATIONS: The life-saving drug naloxone, an opioid antagonist, is used to reverse opioid overdose. The emergence and growing popularity of highly toxic synthetic opioid substances require the following state-level actions:

- Facilitating and expanding access to naloxone for patients with opioid use disorders.
- Providing training on naloxone administration for all first responders and all persons at risk for opioid-related overdoses as well as their families, friends, and community members.

IMPORTANT MESSAGE: Figure 5 documents only naloxone distributed through EMS. Additional distribution occurs through the State Opioid Response (SOR) grant and a standing order. In May 2018, State Health Officer of Mississippi, Dr. Mary Currier, signed a standing order that covers, without a prescription, the dispensing and administration of naloxone. The standing order was re-signed by Dr. Paul Byers, State Epidemiologist, in May of 2019 and 2020.

SUSPECTED OVERDOSE DEATHS AND NALOXONE ADMINISTRATIONS BY COUNTY

- **Suspected Overdose Deaths:** The top 2 counties, DeSoto (7) and Rankin (5), accounted for 40.0% of all suspected overdose deaths in Q1 2020.
- **Naloxone Administrations:** The top 3 counties, Harrison (72), Hinds (63), and Jackson (35), accounted for 43.7% of all EMS naloxone administrations in Q1 2020.

Figure 6. Number of Suspected Overdose Deaths by County, MS, Q1 2020

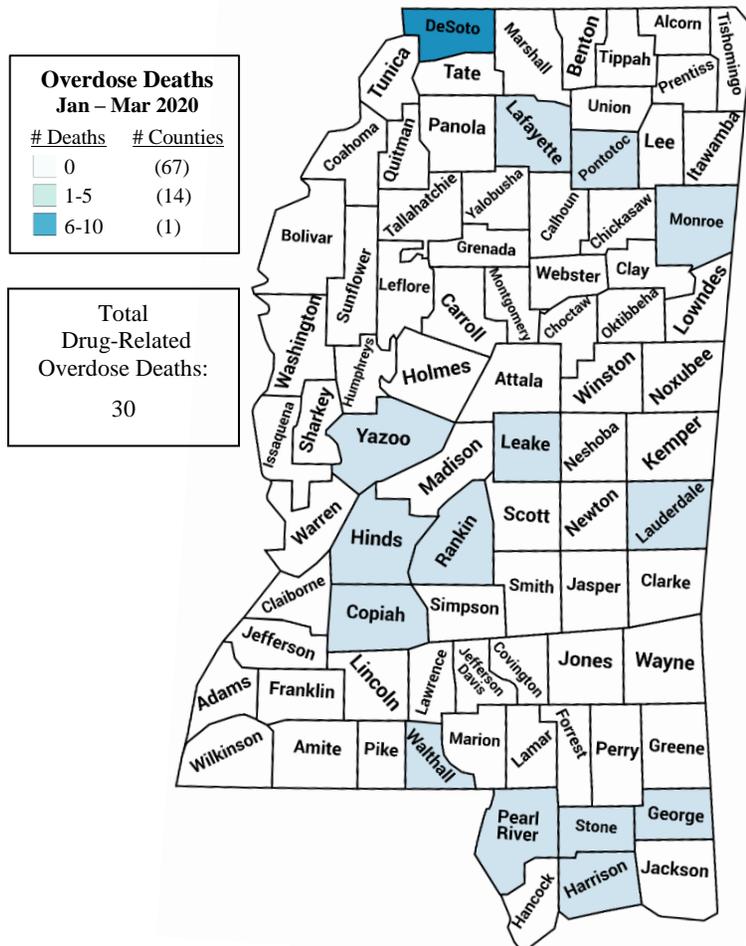
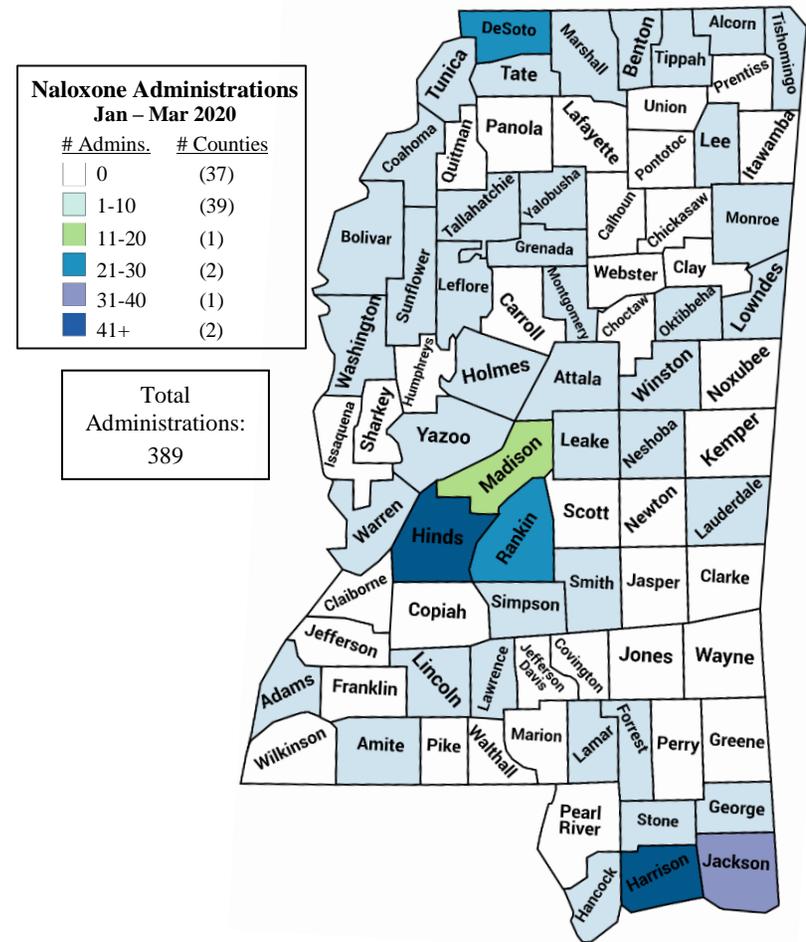


Figure 7. Number of EMS Naloxone Administrations by County, MS, Q1 2020



Data Source: Mississippi Bureau of Narcotics

Refer to p. 3 of this provisional data report for a breakdown of deaths by type of substance.

Data Source: Mississippi State Department of Health - EMS

TREATMENT ADMISSIONS FOR OPIOID USE DISORDERS

FINDINGS

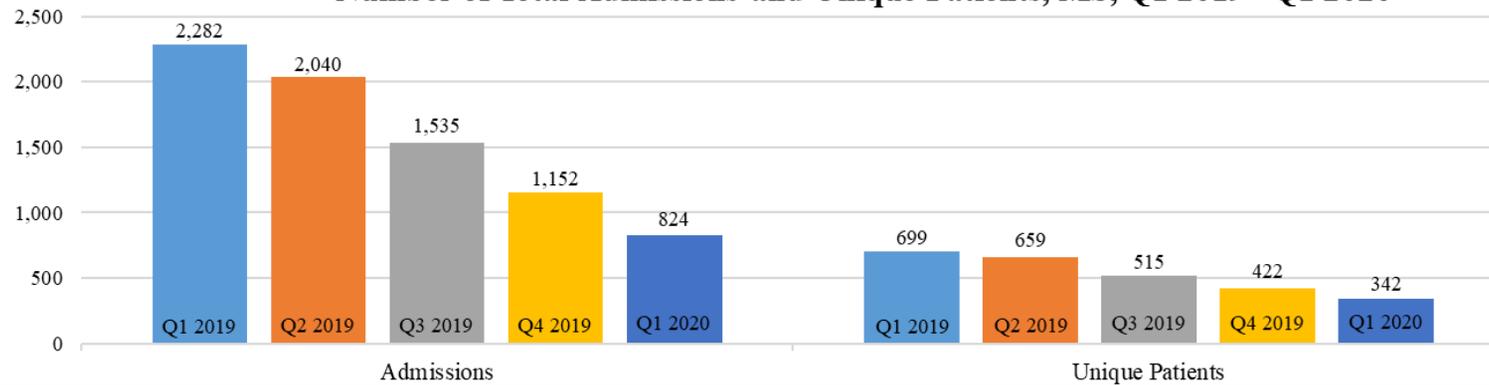
- Table 2 and Figure 8 report opioid-related admissions to facilities certified by the Department of Mental Health (DMH). Data are based off of one limited data source while developing one universal data source for DMH.
- Table 2 indicates that, on average, there were 2.4 admissions per patient during Q1 2020, a decrease compared to Q1 2019.
- Opioids were listed as the primary substance for 218 (63.7%) of the 342 unique patients admitted in Q1 2020. This percentage is higher than Q1 2019, in which opioids were the primary substance for 403 (57.7%) of the 699 unique patients.
- Figure 8 displays the total (primary, secondary, and tertiary) admissions and unique patients. There have been decreases both in total number of admissions and unique patients since Q1 2019.

Table 2. Number of Admissions and Unique Patients, Department of Mental Health, MS, Q1 2019 – Q1 2020*

	Q1 2019*		Q2 2019*		Q3 2019*		Q4 2019*		Q1 2020*	
	Adm.	Pts.	Adm.	Pts.	Adm.	Pts.	Adm.	Pts.	Adm.	Pts.
Primary	1,325	403	1,127	372	875	302	617	266	507	218
Secondary	651	196	610	191	477	155	319	101	221	82
Tertiary	306	100	303	96	183	58	216	55	96	42
Total	2,282	699	2,040	659	1,535	515	1,152	422	824	342

*Transition in data reporting system may contribute to lower than expected counts

**Figure 8. Substance Use Disorders:
Number of Total Admissions and Unique Patients, MS, Q1 2019 - Q1 2020**



CONSIDERATIONS: The number of admissions is consistently higher than the number of patients because patients can be admitted to multiple programs or relapse.
NOTE: Due to a transition from the historical data reporting system to a newer statewide data reporting system, the reporting numbers may reflect admission and patient undercounting due to current data system limitations that will soon be corrected. When the statewide system is implemented in July 2020, the numbers should more accurately reflect the intakes and services provided.

TREATMENT ADMISSIONS FOR OPIOID USE DISORDERS: TYPE OF OPIOID

FINDINGS

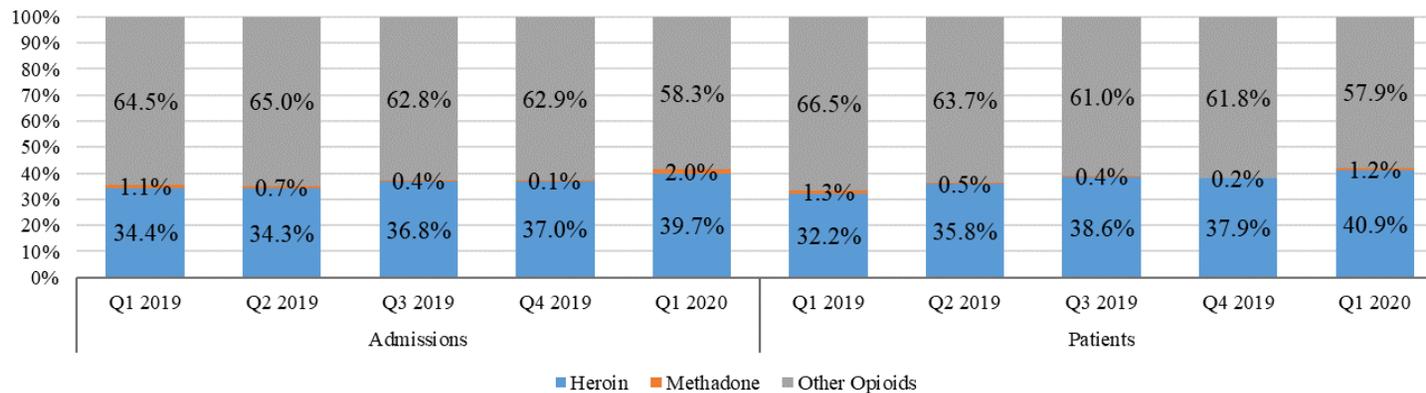
- Table 3 and Figure 9 categorize the type of opioid involved in opioid-related admissions to facilities certified by the DMH.
- The “other opioids” category includes prescription opioids and constituted 58.3% of all opioid-related admissions in Q1 2020. Heroin represented 39.7% of admissions, and methadone represented 2.0%.
- Compared to Q1 2019, the numbers of unique patients admitted for “other opioids” and heroin were down by 57.4% and 37.8%, respectively, in Q1 2020. However, the proportion of unique patients treated for heroin use rose from 32.2% to 40.9%.

Table 3. Number of Admissions and Unique Patients by Type of Opioid, MS, Q1 2019 – Q1 2020*

	Q1 2019*		Q2 2019*		Q3 2019*		Q4 2019*		Q1 2020*	
	Adm.	Pts.	Adm.	Pts.	Adm.	Pts.	Adm.	Pts.	Adm.	Pts.
Heroin	785	225	700	236	565	199	426	160	327	140
Methadone	25	9	15	3	6	2	1	1	17	4
Other Opioids	1,472	465	1,325	420	964	314	725	261	480	198
Total	2,282	699	2,040	659	1,535	515	1,152	422	824	342

*Transition in data reporting system may contribute to lower than expected counts

Figure 9. Treatment Admissions and Unique Patients by Type of Opioid: MS, Q1 2019 - Q1 2020



CONSIDERATIONS: The Substance Abuse and Mental Health Services Administration (SAMHSA) estimates that 121,000 Mississippians are in need of substance use disorder treatment services.⁵ Currently, Mississippi does not have the capacity to provide treatment for all the patients in need.

NOTE: Due to a transition from the historical data reporting system to a newer statewide data reporting system, the reporting numbers may reflect admission and patient undercounting due to current data system limitations that will soon be corrected. When the statewide system is implemented in July 2020, the numbers should more accurately reflect the intakes and services provided.

DRUG-RELATED CRIME DATA

FINDINGS

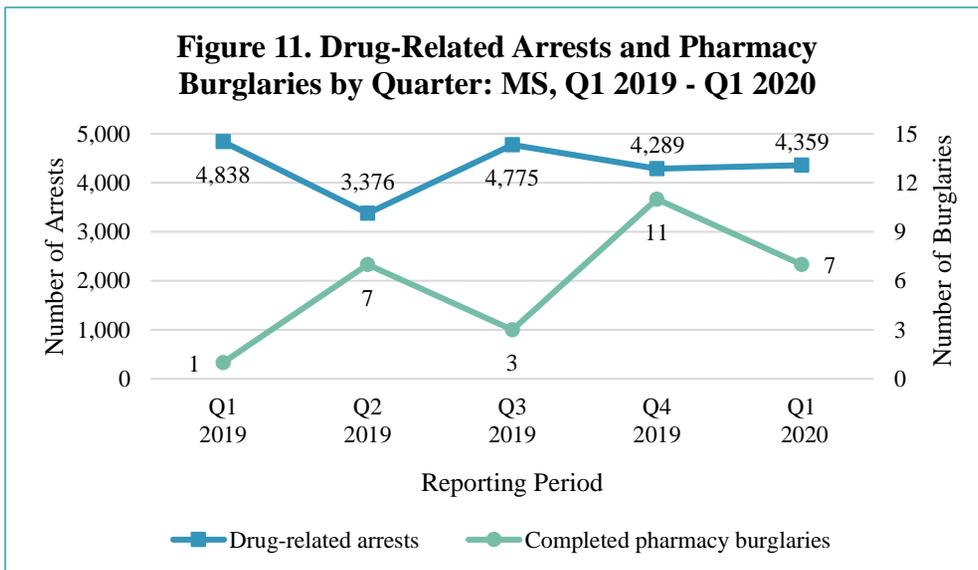
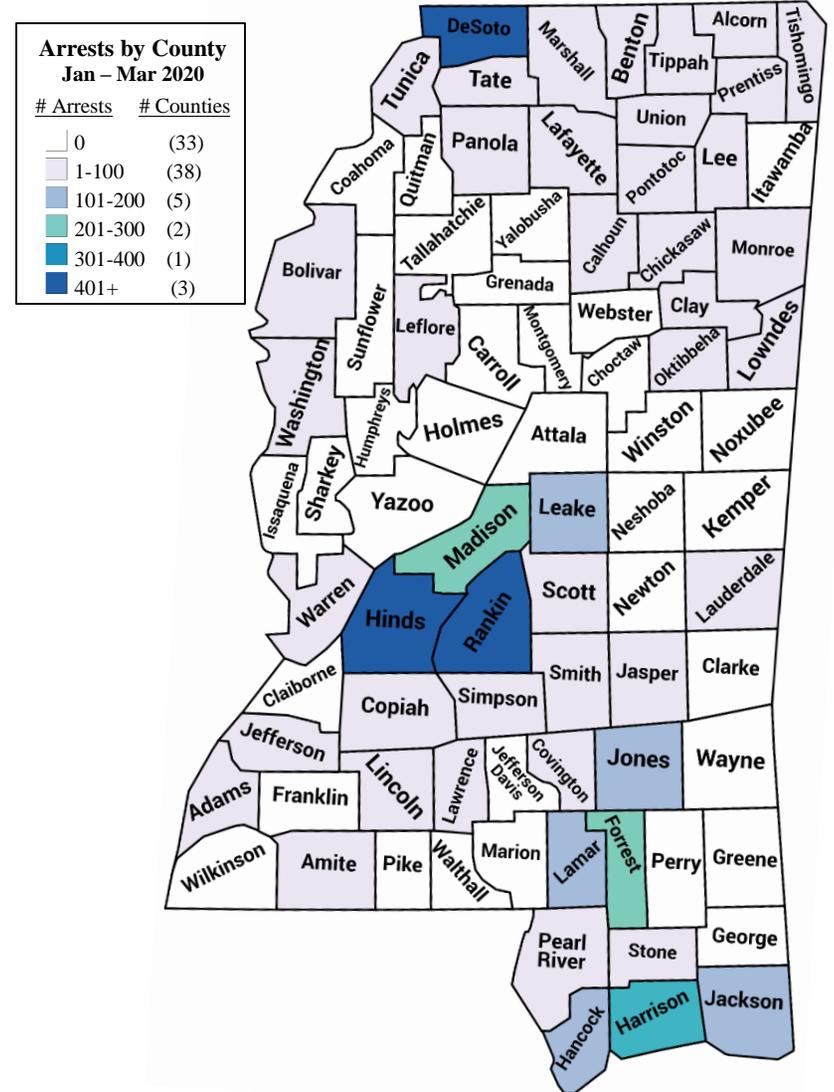
Drug-Related Arrests:

- The total number of drug-related arrests reported in Q1 2020 was 4,359, which is 9.9% fewer than in Q1 2019.
- In the last 91 days (January-March), an average of 1,453 drug-related arrests were reported each month in Mississippi.
- During Q1 2020, the greatest numbers of drug-related arrests were reported in DeSoto (478), Hinds (414), and Rankin (402) counties. They accounted for 29.7% of all drug-related arrests in Mississippi.

Pharmacy Burglaries:

- During Q1 2020, there were 7 completed pharmacy burglaries and 3 attempted burglaries.
- There were 6 more completed pharmacy burglary in Q1 2020 compared to Q1 2019.

Figure 10. Number of Drug-Related Arrests by County, MS, Q1 2020



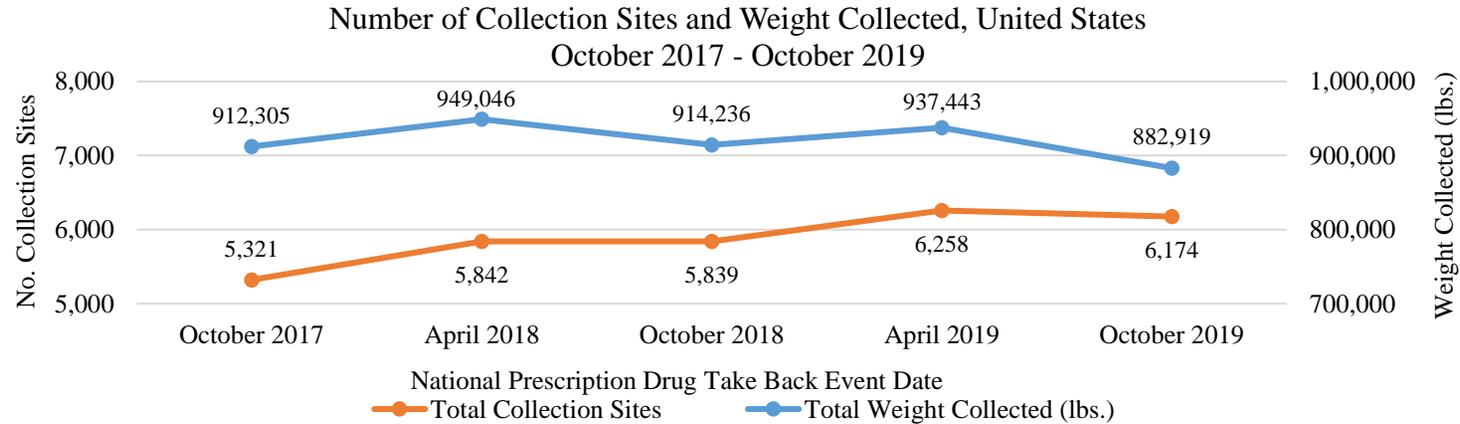
Data Source: Mississippi Bureau of Narcotics

DRUG TAKE-BACK

UPCOMING DRUG TAKE-BACK DAY: Date to Be Determined

- The Drug Enforcement Administration (DEA) holds a National Prescription Drug Take-Back Day each year in April and October in order to collect unused prescription medications. Since 2016, nearly 6,350 tons of drugs have been collected nationwide, with 20.8 tons collected in Mississippi alone.⁶
- In October 2019, a total of 882,919 pounds of drugs were collected from 6,174 sites across the United States.⁶ During the same event, 3,838 pounds were collected from 57 sites in Mississippi. The April 2020 event has been postponed due to the COVID-19 pandemic.

Figure 12. National Prescription Drug Take Back Day Results



- The Collection Site Locator on the DEA’s website can be used to find public collection sites between Take Back Days.⁷
- Prescription drop boxes are also available year-round at school and law enforcement locations in the following areas in Mississippi:^{8,9}

Bay St. Louis PD	Jackson PD Headquarters	Louisville PD	MHP – Meridian	Ocean Springs PD	Vicksburg PD
Biloxi PD	Jackson PD – Precinct 1	McComb PD	MHP – Pearl	Oxford PD	Waveland PD
Brandon PD	Jackson PD – Precinct 2	MHP – Batesville	MHP – Starkville	Pascagoula PD	
Byram PD	Jackson PD – Precinct 3	MHP – Biloxi	MHP – Tupelo	Pass Christian PD	
Columbus PD	Jackson PD – Precinct 4	MHP – Brookhaven	Moss Point PD	Pearl PD	
D’Iberville PD	Kemper Co. School District	MHP – Hattiesburg	Mississippi State University	Ridgeland PD	
Gulfport PD	Long Beach PD	MHP – Jackson I-55	Campus PD	Smith Co. SD	

PD = Police Department / MHP = Mississippi Highway Patrol / SD = Sheriff’s Department

COUNTY-LEVEL DATA: Q1 2020

Table 4. Number of Suspected Overdose Deaths, EMS Naloxone Administrations, and Drug-Related Arrests by County, MS, Q1 2020

County	Number of Suspected Overdose Deaths	Number of EMS Naloxone Administrations	Number of Reported Drug-Related Arrests	County	Number of Suspected Overdose Deaths	Number of EMS Naloxone Administrations	Number of Reported Drug-Related Arrests
Adams	0	6	56	Leflore	0	3	11
Alcorn	0	6	83	Lincoln	0	4	26
Amite	0	2	18	Lowndes	0	9	86
Attala	0	1	0	Madison	0	17	232
Benton	0	1	38	Marion	0	0	0
Bolivar	0	6	11	Marshall	0	1	71
Calhoun	0	0	2	Monroe	2	5	77
Carroll	0	0	0	Montgomery	0	2	0
Chickasaw	0	0	40	Neshoba	0	2	0
Choctaw	0	0	0	Newton	0	0	0
Claiborne	0	0	0	Noxubee	0	0	0
Clarke	0	0	0	Oktibbeha	0	8	17
Clay	0	0	22	Panola	0	0	56
Coahoma	0	2	0	Pearl River	1	0	96
Copiah	1	0	13	Perry	0	0	0
Covington	0	0	16	Pike	0	0	87
DeSoto	7	29	478	Pontotoc	1	0	25
Forrest	0	1	204	Prentiss	0	0	64
Franklin	0	0	0	Quitman	0	0	0
George	1	1	0	Rankin	5	25	402
Greene	0	0	0	Scott	0	0	27
Grenada	0	6	0	Sharkey	0	0	0
Hancock	0	9	127	Simpson	0	6	100
Harrison	1	72	332	Smith	0	2	9
Hinds	2	63	414	Stone	2	3	32
Holmes	0	2	0	Sunflower	0	4	0
Humphreys	0	0	0	Tallahatchie	0	4	0
Issaquena	0	0	0	Tate	0	5	20
Itawamba	0	0	0	Tippah	0	1	39
Jackson	0	35	181	Tishomingo	0	1	82
Jasper	0	0	20	Tunica	0	4	1
Jefferson	0	0	5	Union	0	0	91
Jefferson Davis	0	0	0	Walthall	1	0	0
Jones	0	0	110	Warren	0	3	44
Kemper	0	0	0	Washington	0	5	30
Lafayette	1	0	97	Wayne	0	0	0
Lamar	0	3	105	Webster	0	0	0
Lauderdale	2	10	65	Wilkinson	0	0	0
Lawrence	0	2	22	Winston	0	7	0
Leake	1	1	117	Yalobusha	0	3	0
Lee	0	3	58	Yazoo	2	4	0

Note: The zero values in this table may signify either that cases of overdose deaths, naloxone administrations, and drug-related crimes have not occurred or that such cases did occur but were not reported by the relevant authorities.

MISSISSIPPI BUREAU OF NARCOTICS DISTRICTS

- Figure 13 displays the 9 districts used by the Mississippi Bureau of Narcotics (MBN).
- Table 5 shows the 5 districts with the highest rates of suspected overdose deaths, EMS naloxone administrations, and drug-related arrests in Q1 2020.

Table 5. Rank of MBN Districts: Rates of Suspected Overdose Deaths, EMS Naloxone Administrations, Drug-Related Arrests, Q1 2020

Suspected Overdose Deaths per 100,000 Persons by MBN District, MS, Q1 2020		
Rank	MBN District	Suspected Overdose Deaths per 100,000 Persons
1	3	1.99
2	1	1.57
3	6	1.29
4	8	1.01
5	5	0.83

EMS Naloxone Administrations per 100,000 Persons by MBN District, MS, Q1 2020		
Rank	MBN District	Administrations per 100,000 Persons
1	8	24.11
2	1	18.50
3	2	13.71
4	5	12.06
5	3	11.96

Drug-Related Arrests per 100,000 Persons by MBN District, MS, Q1 2020		
Rank	MBN District	Drug-Related Arrests per 100,000 Persons
1	1	188.93
2	3	180.19
3	4	170.48
4	8	154.31
5	7	141.96

Figure 13. Mississippi Bureau of Narcotics Districts



Source: Mississippi Bureau of Narcotics

TECHNICAL NOTES

DATA SOURCES

Prescription Monitoring Program (PMP): The PMP is a statewide electronic database designed to collect information on the dispensing of controlled substances. These data are used to inform the public about current trends in prescription drug use and assist medical professionals in making informed clinical decisions while preventing the illegitimate use of controlled substances. PMP data are collected by the Mississippi Board of Pharmacy. The findings presented in this report include prescriptions for opioid analgesics and opioid-containing cough medications.

Drug-Related Mortality Data: The Mississippi Bureau of Narcotics collects data on overdose deaths from reports filed by coroners. Deaths are reported for the quarter the coroner's report was received, regardless of when the death occurred. Additionally, not all coroners may report data on overdose deaths. Therefore, the reported data on overdose death counts may be incomplete, thereby creating a possible undercount.

Mississippi Emergency Medical Services Data: The Mississippi State Department of Health collects state-level data and maintains a cutting-edge database on all episodes of emergency medical care delivered by Emergency Medical Services (EMS). The data set contains structured data elements such as incident date and county, patient demographics, main patient complaint, and medications administered. It should be noted that transition in data reporting system may lead to future updates of these data.

Treatment Admissions for Opioid Use Disorder: Data include admissions reported by substance use disorder treatment providers that are certified by the Mississippi Department of Mental Health (DMH). Data represent outpatient and inpatient services, including medication-assisted treatment, reported to DMH's Central Data Repository (CDR). Treatments within non-DMH certified facilities and general hospital admissions for substance use disorders are not a part of this report.

Drug-Related Crime Data: The arrest data reflect all drug-related offenses including the manufacture, sales, and possession of any controlled substance. These data may not be complete because of underreporting by local police departments. Additionally, crime statistics are influenced by the scope of law enforcement activities. Greater law enforcement capacity, for example, may lead to increased arrest rates for particular offenses.

Population Estimates for Mississippi: Rates were calculated using the 2019 Mississippi population estimates released by the U.S. Census Bureau. Accessed on 5/11/2020 at: <https://www.census.gov/data/datasets/time-series/demo/popest/2010s-counties-total.html>

Historical Data: An appendix of previous years' data can be found at the Mississippi State Department of Health website: https://msdh.ms.gov/msdhsite/_static/44,0,382,740.html

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THE PROJECT: DESCRIPTION AND GOALS

THE MISSISSIPPI OPIOID AND HEROIN DATA COLLABORATIVE (MS-OHDC)

Five state agencies have united to transform one of the most formidable drug-related challenges Mississippi has ever faced into an opportunity for developing data-driven policy changes aimed at combating the current opioid epidemic and preventing future drug-related crises.

GOALS

