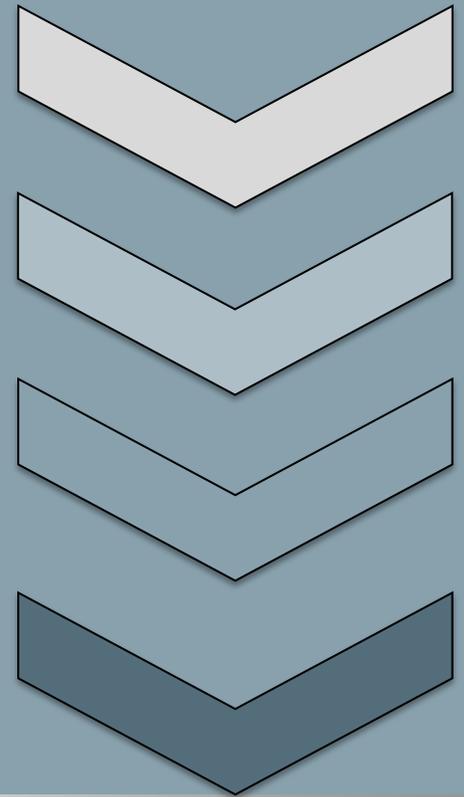


THE MISSISSIPPI OPIOID AND HEROIN DATA COLLABORATIVE

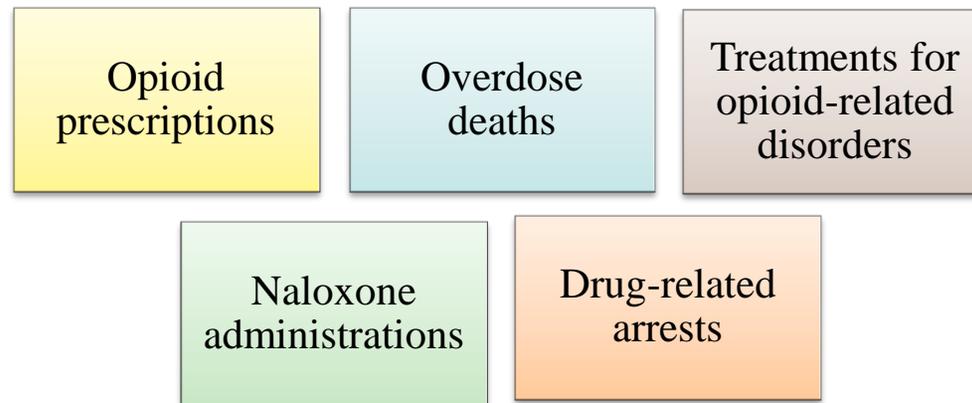


2017 Provisional Data Report
Mississippi Board of Pharmacy
Mississippi Bureau of Narcotics
Mississippi State Department of Health
Mississippi Department of Mental Health

4/6/2018

DATA AND REPORT OVERVIEW

- This report summarizes data on opioid prescriptions dispensed in Mississippi, fatal drug overdoses reported to Mississippi Bureau of Narcotics, naloxone administration for suspected overdoses by Emergency Medical Services, drug-related arrests, and treatment for opioid-related disorders within facilities certified by the Mississippi Department of Mental Health.
- The goal of this report is to provide the public and policy makers with timely information on key indicators measuring the scope of the opioid epidemic in Mississippi.
- Most of the statistics presented in this report are preliminary and based on available data at the time of analysis. Such provisional counts could change since data collection is a continuous process. In addition, finalizing data counts requires data evaluation and validation. The report is updated quarterly as new data become available. While we strive to present the latest data in a quarterly format, some of the data sources used in this report are released on an annual basis only. Detailed information regarding each of the data sources used in the report is presented in the technical notes on page 8.



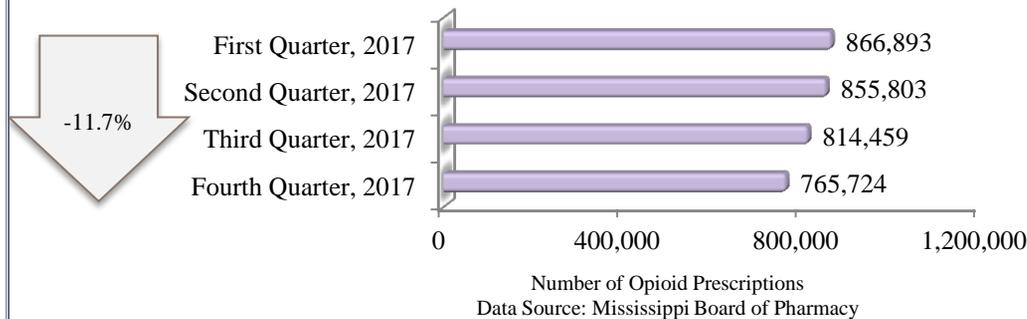
The conceptualization and production of this report is a collaborative effort by all participating state agencies, Mississippi Department of Health, Mississippi Department of Mental Health, Mississippi Bureau of Narcotics, and Mississippi Board of Pharmacy.

PRESCRIPTION MONITORING PROGRAM DATA

FINDINGS

- During 2017, over 3.3 million opioid prescriptions were dispensed in Mississippi – the number of dispensed opioid prescriptions in Mississippi was higher than the number of state’s residents.
- On average, over half of million dosage units (e.g., pills) were dispensed every day during this year.
- The number of prescriptions decreased by 11.7% and the number of dosage units for opioid-containing drugs decreased by 13.0% between the first to the fourth quarters of 2017 (Figure 1 and Figure 2).

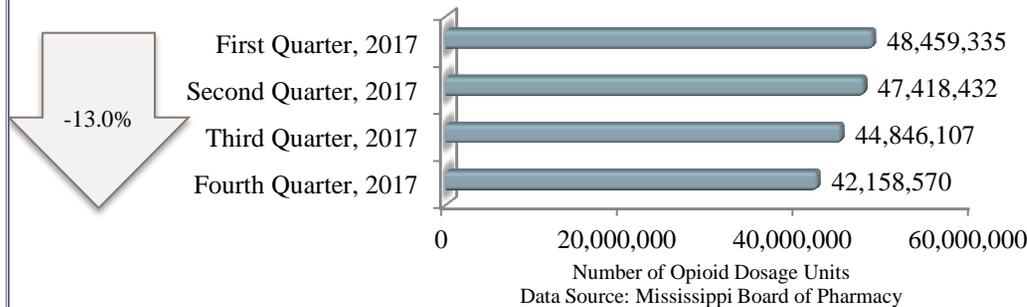
Figure 1. Number of Opioid Prescriptions, MS, 2017



Opioid Prescriptions, 2017

- Total number: 3,302,879
- Average number per month: 275,240
- Average number per day: 9,049
- The rate was 110.5 opioid prescriptions per 100 persons - enough for each person in Mississippi to have 1 opioid prescription during 2017

Figure 2. Number of Opioid Dosage Units, MS, 2017



Opioid Dosage Units, 2017

- Total number: 182,882,444
- Average number per month: 15,240,204
- Average number per day: 501,048
- The rate was 6,119.1 opioid dosage units per 100 persons - enough for each person in Mississippi to have a supply of 61 opioid dosage units during 2017

CONSIDERATIONS: Despite these encouraging trends, the high number of opioid prescriptions dispensed during 2017 warrants continuous efforts to educate the medical community about the scope of Mississippi’s opioid epidemic and the utility of PMP data for reducing the non-medical use of opioids.

SUSPECTED DRUG OVERDOSE DEATHS

FINDINGS

- The number of reported deaths due to suspected overdose reported to Mississippi Bureau of Narcotics reached a total of 256 counts during 2017.
- Opioid-related deaths accounted for over two-thirds (173 or 67.6%) and prescription opioid related deaths accounted for nearly one-third (83 or 32.4%) of all reported overdose deaths during 2017 (Figure 1 and Table 1).

Figure 3. Number of Suspected Overdose Deaths Reported to Mississippi Bureau of Narcotics, MS, 2017

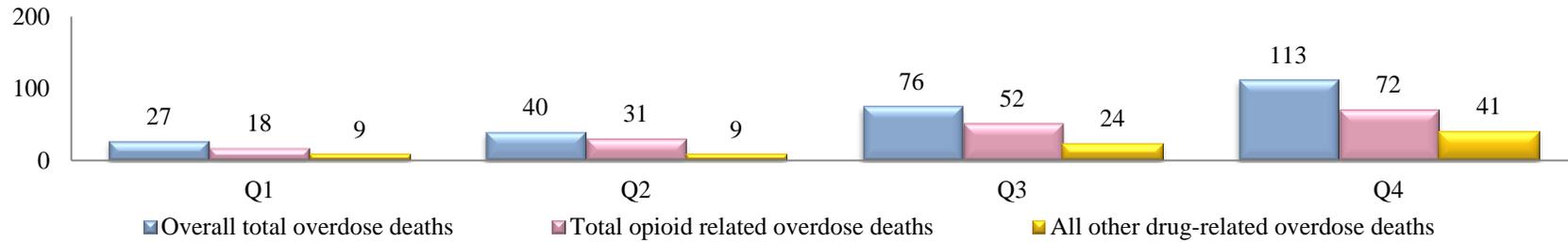


Table 1. Number and Percent of Suspected Overdose Deaths reported to Mississippi Bureau of Narcotics by Type of Involved Substance, MS, 2017

	Q1	Q2	Q3	Q4	Total for 2017	% of Total
Overall total overdose deaths	27	40	76	113	256	100.0%
Total opioid related overdose deaths	18	31	52	72	173	67.6%
Prescription opioid related overdose deaths	7	12	24	40	83	32.4%
Fentanyl related overdose deaths	2	7	8	3	20	7.8%
Fentanyl and prescription related overdose deaths	4	4	11	12	31	12.1%
Heroin related overdose deaths	4	5	9	11	29	11.3%
Heroin and prescription related overdose deaths	1	1	0	0	2	0.8%
Heroin and fentanyl related overdose deaths	0	2	0	6	8	3.1%
Other related overdose deaths	9	7	10	23	49	19.1%
Prescription related overdose deaths	0	2	14	18	34	13.3%

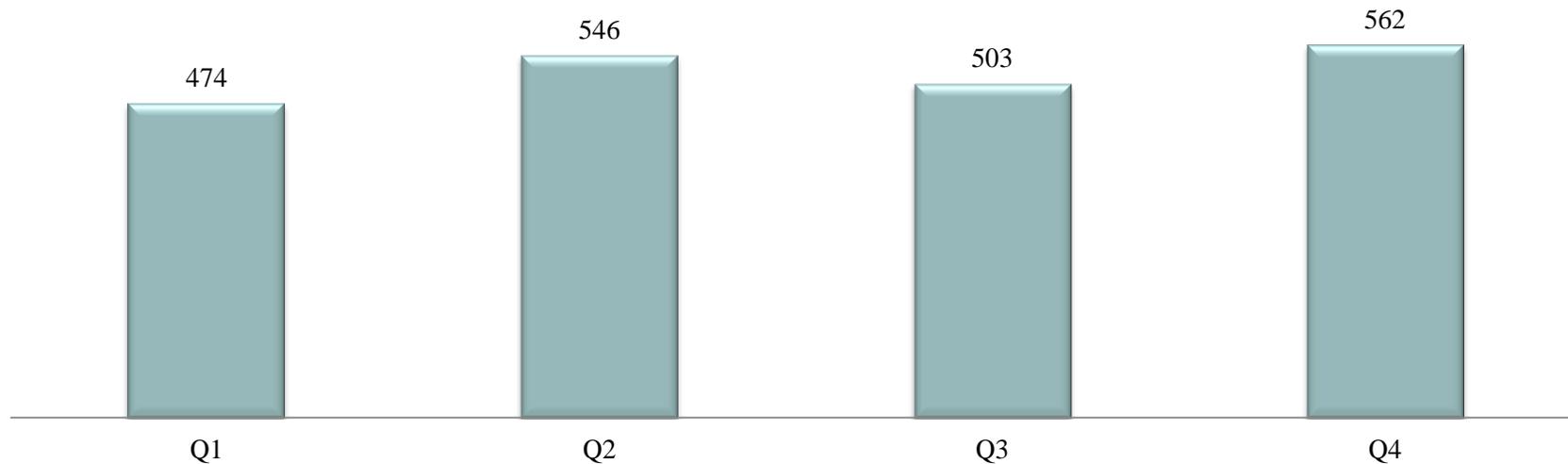
CONSIDERATIONS: The accurate assessment of drug-related fatalities depends on complete and good quality data. The reliability of mortality data, however, has been impacted by several constraints such as insufficient resources, training, or time for performing thorough death investigations. In addition, our state 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.¹

NALOXONE ADMINISTRATION

FINDINGS

- Emergency Medical Services (EMS) data revealed that naloxone was administered 2,085 times during 2017.
- The number of naloxone administrations increased by 18.6% from 474 during the first quarter to 562 during the fourth quarter of 2017. The number of naloxone administrations, however, demonstrated quarterly variations during 2017 (Figure 4).

Figure 4. Naloxone Administration by EMS: Number of Cases, MS, 2017



Note: Naloxone administration is performed when an opioid toxicity is suspected. Data for 2017 are preliminary.

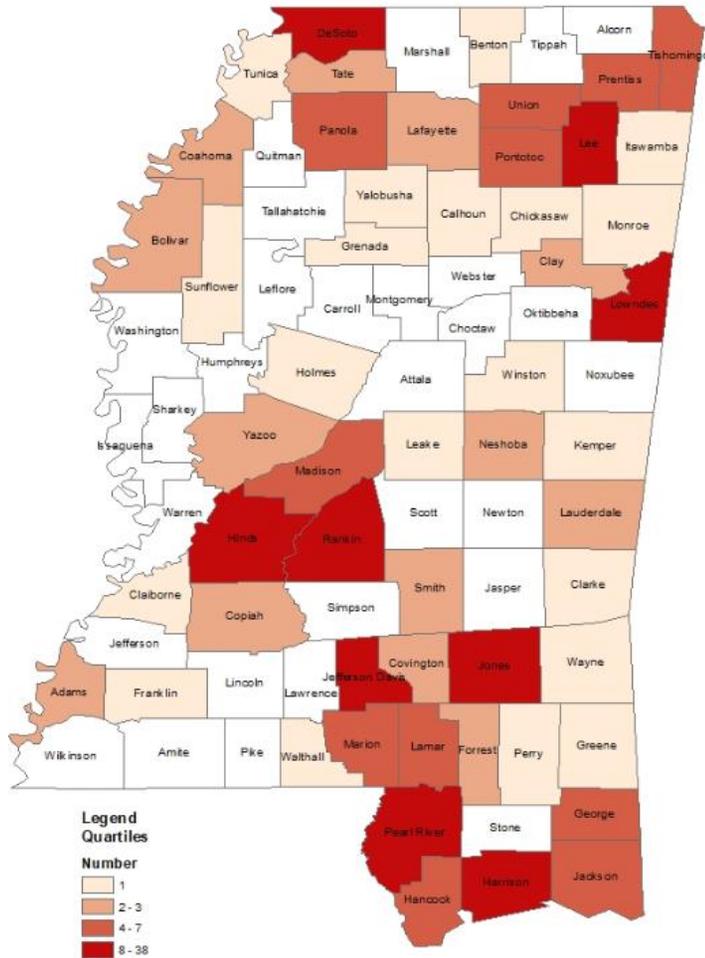
CONSIDERATIONS: Opioid-associated toxicity can lead to respiratory depression and cardiac arrest, both of which require an emergency response. The life-saving drug naloxone, an opioid antagonist, is used to reverse opioid overdose. The emergence and growing popularity of highly toxic synthetic opioid 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.

NALOXONE ADMINISTRATIONS AND SUSPECTED OVERDOSE DEATHS BY COUNTY

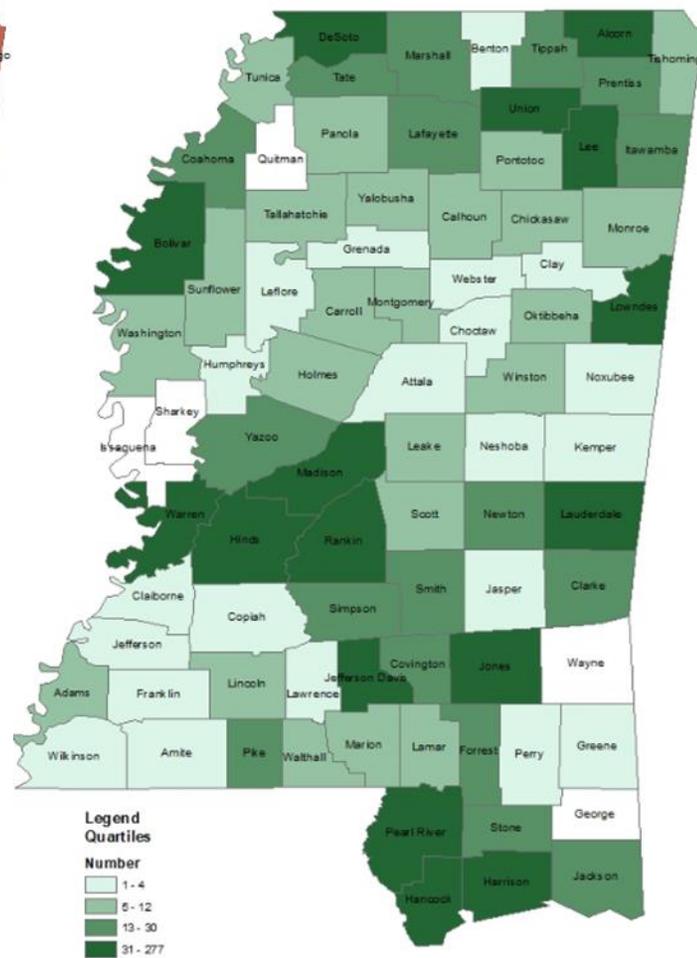
- The top 5 counties, Harrison (38), Hinds (30), DeSoto (20), Rankin (18) and Pearl River (17) accounted for 48.0% of all suspected overdose deaths.
- The Top 5 counties, Harrison (277), Hinds (243), Rankin (142), DeSoto (88), and Madison (71) accounted for 39.4% of all Naloxone administrations.

Number of Suspected Overdose Deaths by County, 2017



Data Source: Mississippi Bureau of Narcotics

Number of Naloxone Administrations by County, 2017



Data Source: Mississippi State Department of Health
 Note: Records for missing or erroneous values for county of residence and such cases were excluded.
 This analysis included 1,360 cases.

TREATMENT ADMISSIONS FOR OPIOID USE DISORDERS

FINDINGS

- The following figures display data on opioid-related admissions to facilities certified by the Department of Mental Health (DMH). These statistics are provisional and current as of 1/26/2017.
- Figure 5 categorizes the use of opioids as the primary, secondary, or tertiary substance. Opioids were listed as the primary substance for 55.4% of all 1,292 patients admitted.
- Figure 6 categorizes the type of opioid. The largest category listed as “Other opioids” includes prescription opioids and represents 74.0% of all opioids.

Figure 5. Treatment Admissions for Opioid Use as a Primary, Secondary, or Tertiary Substance: Number of Patients, MS, 2016

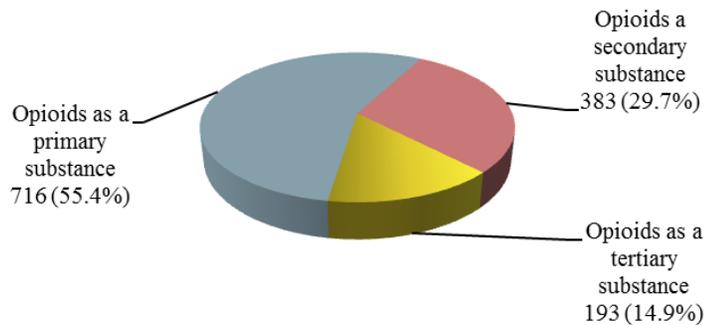
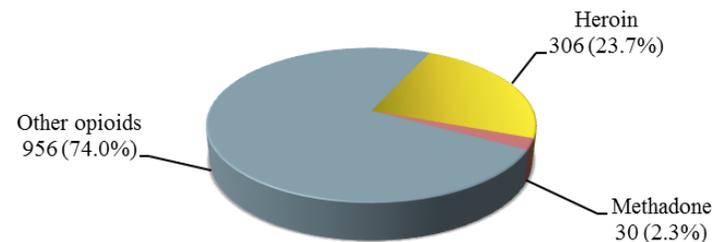


Figure 6. Treatment Admissions by Type of Opioid: Number of Patients, MS, 2016



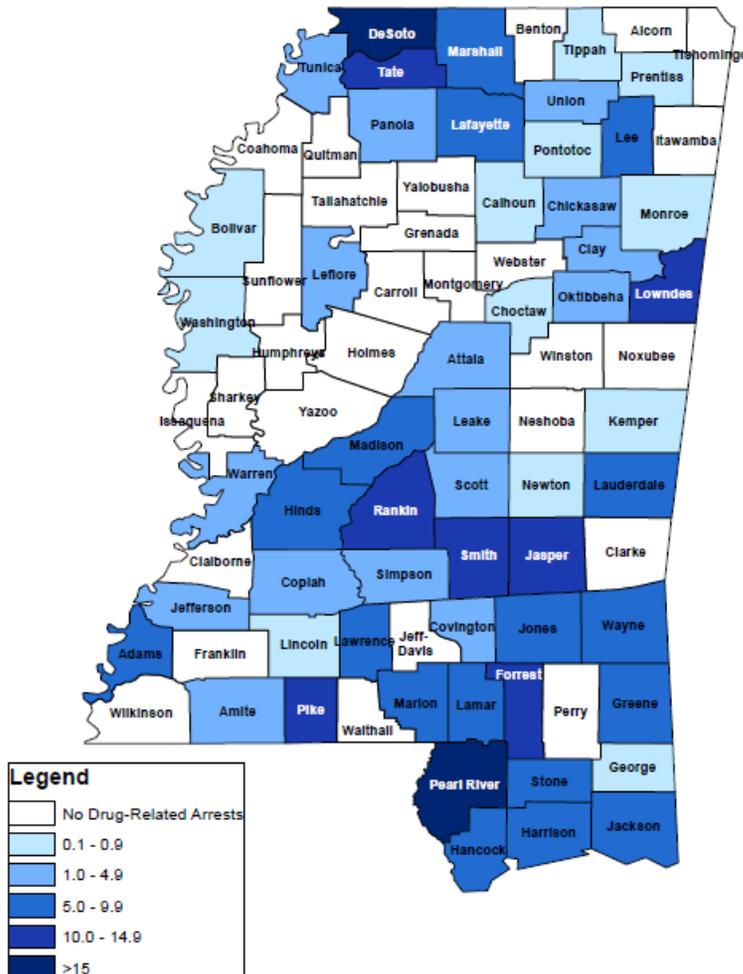
.Data Source: Mississippi Department of Mental Health

CONSIDERATIONS

- The Substance Abuse and Mental Health Services Administration (SAMHSA) estimates that 121,000 Mississippians are in need of substance use disorder treatment services.² With only 665 DMH-certified beds, people in need of treatment will continue to wait several months for an open bed. Expansion of bed capacity would significantly improve the state’s ability to provide services for those in need.
- The current data system, for capturing admission and treatment data, is not equipped to capture real-time data and therefore, there is a lag time in reporting aggregate data.

DRUG-RELATED CRIME DATA

Rates of Reported Drug-Related Arrests per 1,000 Persons, MS, 2017



Data Source: Mississippi Department of Public Safety and Mississippi Bureau of Narcotics
 Note: Twenty eight counties do not have any cases reported. These counties are presented in white.

FINDINGS

Drug-Related Arrests:

- The total number of drug-related crimes reported in 2017 was 19,650, a rate of 6.6 arrests per 1,000 residents.
- On average, 1,638 drug-related crimes were reported each month during 2017.
- During 2017, the greatest numbers of drug-related arrests were reported in DeSoto (3,449), Hinds (2,118), Harrison (1,746), Rankin (1,628), and Madison (986).
- The five counties with highest rates of drug-related crimes per 1,000 persons were DeSoto (19.6), Pearl River (17.6), Tate (13.3), Lowndes (13.2), and Forrest (13.0).

Pharmacy Burglaries: Six (15.8%) of the 38 pharmacy burglaries in the state occurred in Meridian during 2017. The number of pharmacy burglaries declined during the fourth quarter (Table 1).

Type of Crime	First Quarter	Second Quarter	Third Quarter	Fourth Quarter
	Number	Number	Number	Number
Drug-related arrests	5,284	5,184	4,818	4,364
Pharmacy burglaries	11	11	12	4

Data Source: Mississippi Department of Public Safety and Mississippi Bureau of Narcotics

COUNTY-LEVEL DATA

Table 2. Suspected Overdose Deaths, EMS Naloxone Administrations, and Drug-Related Arrests Reported by County, MS, 2017

County	Number of Suspected Overdose Deaths, 2017	Number of EMS Naloxone Administrations, 2017	Number of Reported Drug-Related Arrests, 2017	Drug-Related Arrest Rates per 1,000 Persons, 2017	County	Number of Suspected Overdose Deaths, 2017	Number of EMS Naloxone Administrations, 2017	Number of Reported Drug-Related Arrests, 2017	Drug-Related Arrest Rates per 1,000 Persons, 2017
Adams	2	7	165	5.3	Leflore	0	2	33	1.1
Alcorn	0	35	0	0.0	Lincoln	0	7	28	0.8
Amite	0	2	56	4.5	Lowndes	11	35	784	13.2
Attala	0	3	57	3.0	Madison	7	71	986	9.4
Benton	1	2	0	0.0	Marion	4	10	202	8.0
Bolivar	2	43	31	0.9	Marshall	0	21	208	5.8
Calhoun	1	6	9	0.6	Monroe	1	6	24	0.7
Carroll	0	9	0	0.0	Montgomery	0	7	0	0.0
Chickasaw	1	8	85	4.9	Neshoba	2	2	0	0.0
Choctaw	0	1	3	0.4	Newton	0	13	2	0.1
Claiborne	1	1	0	0.0	Noxubee	0	1	0	0.0
Clarke	1	13	0	0.0	Oktibbeha	0	8	48	1.0
Clay	2	4	96	4.8	Panola	5	9	35	1.0
Coahoma	2	13	0	0.0	Pearl River	17	37	972	17.6
Copiah	2	4	64	2.2	Perry	1	1	0	0.0
Covington	3	14	38	1.9	Pike	0	18	434	10.9
DeSoto	20	88	3,449	19.6	Pontotoc	5	11	22	0.7
Forrest	2	30	984	13.0	Prentiss	5	13	14	0.6
Franklin	1	2	0	0.0	Quitman	0	0	0	0.0
George	7	0	20	0.8	Rankin	18	142	1,628	10.8
Greene	1	1	79	5.9	Scott	0	12	82	2.9
Grenada	1	1	0	0.0	Sharkey	0	0	0	0.0
Hancock	5	54	366	7.8	Simpson	0	20	48	1.8
Harrison	38	277	1,746	8.6	Smith	2	13	175	11.0
Hinds	30	243	2,118	8.8	Stone	0	16	153	8.5
Holmes	1	7	0	0.0	Sunflower	1	12	0	0.0
Humphreys	0	1	0	0.0	Tallahatchie	0	7	0	0.0
Issaquena	0	0	0	0.0	Tate	2	20	374	13.3
Itawamba	1	25	0	0.0	Tippah	0	18	16	0.7
Jackson	6	15	773	5.5	Tishomingo	4	12	0	0.0
Jasper	0	4	174	10.5	Tunica	1	6	21	2.1
Jefferson	0	1	17	2.3	Union	4	32	140	4.9
Jefferson Davis	0	3	0	0.0	Walthall	1	7	0	0.0
Jones	9	43	424	6.2	Warren	0	38	167	3.5
Kemper	1	4	3	0.3	Washington	0	12	30	0.6
Lafayette	3	25	441	8.2	Wayne	1	0	147	7.2
Lamar	4	6	384	6.3	Webster	0	3	0	0.0
Lauderdale	2	51	651	8.4	Wilkinson	0	2	0	0.0
Lawrence	0	1	83	6.5	Winston	1	10	0	0.0
Leake	1	12	104	4.6	Yalobusha	1	12	0	0.0
Lee	8	56	457	5.4	Yazoo	3	17	0	0.0

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.

TECHNICAL NOTES

DATA SOURCES

The Prescription Monitoring Program: This 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 as well as to prevent the illegitimate use of controlled substances. The 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. In this report, death counts are current as of 2/13/2018. The counts are provisional and may change because of pending investigations. Additionally, not all coroners may have reported data on overdose deaths. Therefore, the reported data on overdose death counts may be incomplete.

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 a narrative component and structured data elements such as patient demographics, main patient complaint, medical procedures performed, medications administered, and rationale for 911 call.

Treatment Admissions for Opioid Use Disorder: Data includes admissions reported by substance use disorder treatment providers that are certified by the Mississippi Department of Mental Health (DMH). Data represent all outpatient or inpatient services, including medication-assisted treatment, provided by the 39 DMH-certified treatment providers 665 residential beds across the state. 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 offices. Additionally, crime statistics are influenced by the scope of law enforcement activities. An increased level of law enforcement, for example, may lead to increased arrest rates for particular offenses.

Population Estimates for Mississippi: Rates were calculated using the 2016 Mississippi population estimates released by the U.S. Census Bureau. Accessed on 11/1/2017 at: <https://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?src=bkmk>.

References:

1. Recommendations and Lessons Learned for Improved Reporting on Drug Overdose Deaths on Death Certificates. Council of State and Territorial Epidemiologists. April 2016. Accessed on 11/10/2017 at: http://c.ygcdn.com/sites/www.cste.org/resource/resmgr/PDFs/PDFs2/4_25_2016_FINAL-Drug_Overdos.pdf.
2. Mississippi - FY2018-2019 SABG Behavioral Health Assessment and Plan Table 3 SABG Persons in need/receipt of SUD treatment. Substance Abuse and Mental Health Administration.

THE PROJECT: DESCRIPTION AND GOALS

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

Four state agencies have united to transform a seemingly hopeless and overwhelming situation into an opportunity for developing data-driven policy changes aimed at combating the current opioid epidemic and preventing future drug-related crises.

GOALS

