2018: Annual Report

PRESCRIPTION DRUG MONITORING PROGRAM

ARKANSAS DEPARTMENT OF HEALTH | 4815 W. Markham St, Little Rock, AR 72205

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Update from the Program

The Arkansas Prescription Drug Monitoring Program (PDMP) welcomed two new staff members, Dr. Jamie Turpin, PharmD as the new PDMP Administrator and DeShawn Bryant as the PDMP Health Program Specialist. Dr. Turpin is an Arkansas native and obtained her Doctorate of Pharmacy from the University of Arkansas for Medical Sciences College of Pharmacy in 2013. Prior to starting at the PDMP last November, she had worked in a chain retail pharmacy for over 12 years. Mr. Bryant is also an Arkansas native and graduated from the University of Central Arkansas in 2013 with a Bachelor's Degree in Health Education with Minor in Family Consumer Science. Before starting at the PDMP, Mr. Bryant worked for the City of North Little Rock as a Healthy Program Leader.

Along with the new faces at the PDMP, there were some exciting enhancements to the program. In the Spring of 2018, the first round of Prescriber Comparison Reports was distributed to the all the healthcare providers in Arkansas who wrote a prescription for an opioid and had a user account in the PDMP system. The reports compare the prescribing habits of the prescribers to other prescribers within the same specialty. This tool can give the providers a better understanding of how others within their specialty prescribe opioids and other controlled substances. Furthermore, these reports are a valuable tool helping prescribers identify if their individual prescribing habits should be adjusted.

In 2019, the PDMP hopes to see even more helpful enhancements for prescribers, pharmacies, professional boards and law enforcement in an effort to decrease misuse and abuse of controlled substances in the state.

Arkansas PDMP Background

In 2011, Act 304 enlisted the Arkansas Department of Health (ADH) to establish a Prescription Drug Monitoring Program (PDMP). The goal of this legislation was to: enhance patient care; help curtail the misuse and abuse of controlled substances; assist in combating the illegal trade in and diversion of controlled substances; and make prescription information available to practitioners, law enforcement, professional boards and other authorized users.

In 2013, the PDMP began accepting dispensed prescription information from outpatient pharmacies; however, medications administered while in hospitals or in clinics are exempt from reporting. Mail order pharmacies that ship prescriptions into Arkansas *are* required to report to the PDMP, however. Healthcare providers across the state are able to run patient reports that identify all the controlled medications dispensed at these pharmacies. Professional boards and law enforcement are able to utilize the PDMP data in their investigation of prescribers, dispensers and patients to help identify and decrease the misuse and abuse of controlled medications.

In 2015, legislation was passed, allowing all prescribers and pharmacists to each assign a delegate to assess the PDMP on their behalf. A delegate is an agent or employee of the prescriber or pharmacist that has been granted access to the PDMP in order to run patient reports for the supervising prescriber or pharmacist, thus increasing efficiency.

In 2017, Act 820 was signed into law that mandated prescriber usage of the PDMP. The law states that a prescriber must check the PDMP each time prior to prescribing a schedule II or schedule III opioid (i.e. hydrocodone, oxycodone, morphine, etc.) and the first time prescribing a benzodiazepine (i.e. alprazolam, diazepam, lorazepam, etc.). Exceptions to this rule are in the instances of hospice, nursing home, in-patient and emergent situations in an ambulance.

In the 2019 legislative session, the passing of Act 605 added the ability to share data with federal PDMPs. The Department of Defense established the Military Health System (MHS) PDMP and the sharing will allow authorized Arkansas users to see prescriptions filled on military bases and military prescribers to see prescriptions filled in Arkansas. Also in 2019, Act 141 allows the Office of Medicaid Inspector General to access to the PDMP as a part of their search for fraud, waste and abuse in the state.

PDMP Use

Who's using the PDMP?

The PDMP allows access to many different users. Access to the PDMP system occurs through a secure website, which requires authorized users to log in with a password. User accounts are granted to physicians, pharmacists, dentists, medical residents, physician assistants, veterinarians, nurse practitioners, Medicaid officials, law enforcement, regulatory boards, the state medical examiner, and prescriber and pharmacist delegates. All users must be approved for access according to statutory requirements. The number of user accounts are constantly increasing due to many factors, such as mandatory usage, opioid prescribing, internal office policies, etc. By the end of 2018, the PDMP had 19,835 user accounts, which was an increase from the 15,637 user accounts in 2017 (Table 1).

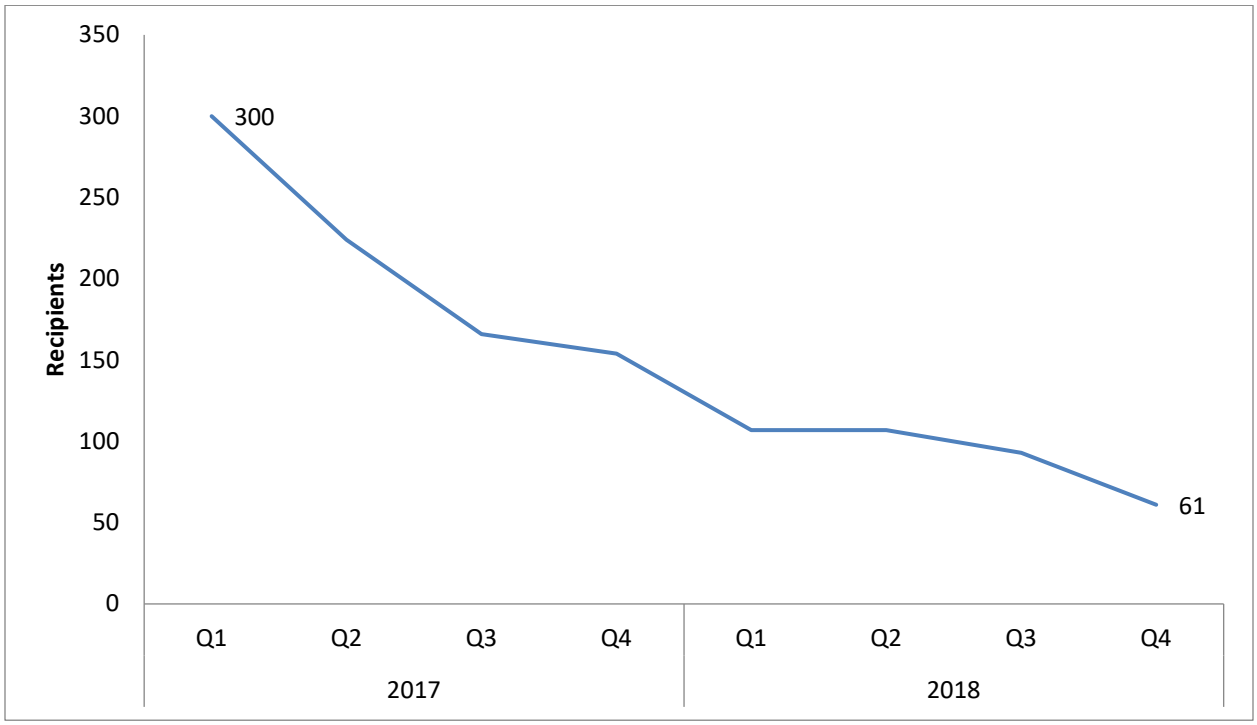
Table 1: Number of Registered PDMP Accounts—Arkansas—2018

Role	Accounts
Physician (MD/DO)	6,134
Pharmacist	3,117
Delegate	5,574
Adv. Practice Nurse	2,545
Dentist	1,265
Physician Assistant	401
Optometrist	115
Podiatrist	77
Law Enforcement	192
Veterinarian	95
Medical Resident	330
Licensing Board	5
Other	3
Total	**19,853**

“Doctor Shopping”

In an effort to curb the misuse and abuse of controlled substances, the PDMP is able to alert prescribers and dispensers of patients who seem to be “doctor shopping.” “Doctor shopping” is defined as a patient going to multiple providers (prescribers and pharmacies) to obtain the same prescription or same class of medication. The PDMP flags patients who get multiple prescriptions from multiple providers and fill the prescriptions at multiple pharmacies. In previous years, the threshold for doctor shopping was 7 prescribers and 7 pharmacies in 90 days. However, the number of doctor shopping patients identified was low, which resulted in lowering the threshold. The new threshold is met once a patient sees 5 prescribers and 5 pharmacies in 90 days (5/5/90), at which point a patient alert is sent out to all providers and dispensers the patient has seen. Since quarter one of 2017, the state has seen a decrease in “doctor shopping” of the 5/5/90 threshold by 80% (Figure 1).

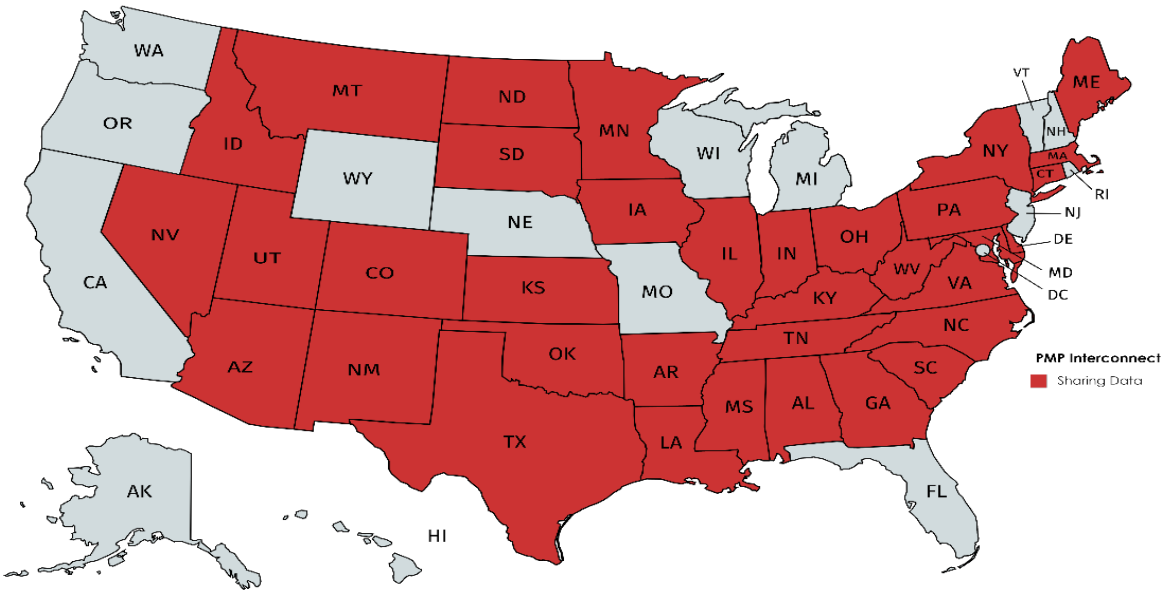
Figure 1: Recipients Seeing 5 or More Physicians and 5 or More Pharmacies in a 90-day Period—Arkansas—2017-2018



Interstate Data Sharing

The opioid crisis does not stop at state borders. Soon after states began establishing PDMPs, authorities recognized the need to share information between states. PDMP data are shared between states through an interface called PMP Interconnect. All the states in the country have a statewide PDMP with the exception of Missouri. Interstate data sharing allows prescribers, pharmacists and their delegates in Arkansas to see what controlled medications their patients have received in the 34 states with whom Arkansas currently shares data. The data sharing is bi-directional; Arkansas users are able to see information from other states and the other states are able to see prescription data in Arkansas. Sharing data across state lines prevents patients from "doctor shopping" from one state to another (Figure 2).

Figure 2: States that Share PDMP Data with Arkansas—2018



Non-registered Provider Audits

In the Summer of 2017, the mandatory use law went into effect. This law requires providers, with some exceptions, to check the PDMP prior to prescribing:

(1) a schedule II or schedule III opioid (i.e. oxycodone, hydrocodone, etc.) each time they are prescribed, and
(2) a benzodiazepine (i.e. alprazolam, diazepam, etc.) for the first prescription.

Two manual audits were performed by the PDMP to identify the providers who wrote a prescription for a schedule II or schedule III opioid between January 1, 2018, and June 30, 2018, and between July 1, 2018, and December 31, 2018, but appeared to not be registered with the Arkansas PDMP. If a provider is not registered with the PDMP and prescribes in one of the above categories, then the prescriber is not in compliance with the mandatory use law.

Each applicable professional board was notified of these providers, with the recommendation to send out a communication to educate on the new law. It is possible that some of these prescribers are not under the purview of the state licensing board—as an example, some of the prescribers may be Veterans Affairs (VA) healthcare professionals, and therefore not necessarily licensed in Arkansas.

A comparison of the first audit and the second audit was performed. Overall, every professional board had a decrease in healthcare providers that had prescribed at least one schedule II or III opioid who appeared to not have an account in the PDMP website.

Prescription Drug Use

Data by Drug Classes

The top selling controlled prescription drug type in 2018 in Arkansas filled by Arkansas residents was opioids. Opioids are medications used primarily to treat pain. This class of drugs includes hydrocodone, oxycodone, morphine, and others. Over 3.2 million prescriptions were given to Arkansas residents in 2018. Between 2016 and 2018, the total number of opioid pills sold decreased from 235,934,613 to 186,424,459. This is a 21% decrease in total number of opioid pills sold.

The second top-selling controlled class was benzodiazepines (Benzo), such as Xanax and Valium, which can be prescribed for anxiety, panic attacks, insomnia, seizures, and muscle spasms. In 2018, over 1.7 million prescriptions to Arkansans equated to 86 million pills.

Ranking third in the top-selling list is the stimulant class with drugs such as Adderall and Ritalin. Stimulants are mostly indicated for attention deficit hyperactivity disorder (ADHD) and narcolepsy. In 2018, 762,057 prescriptions to Arkansans totaled 26 million pills (Table 2).

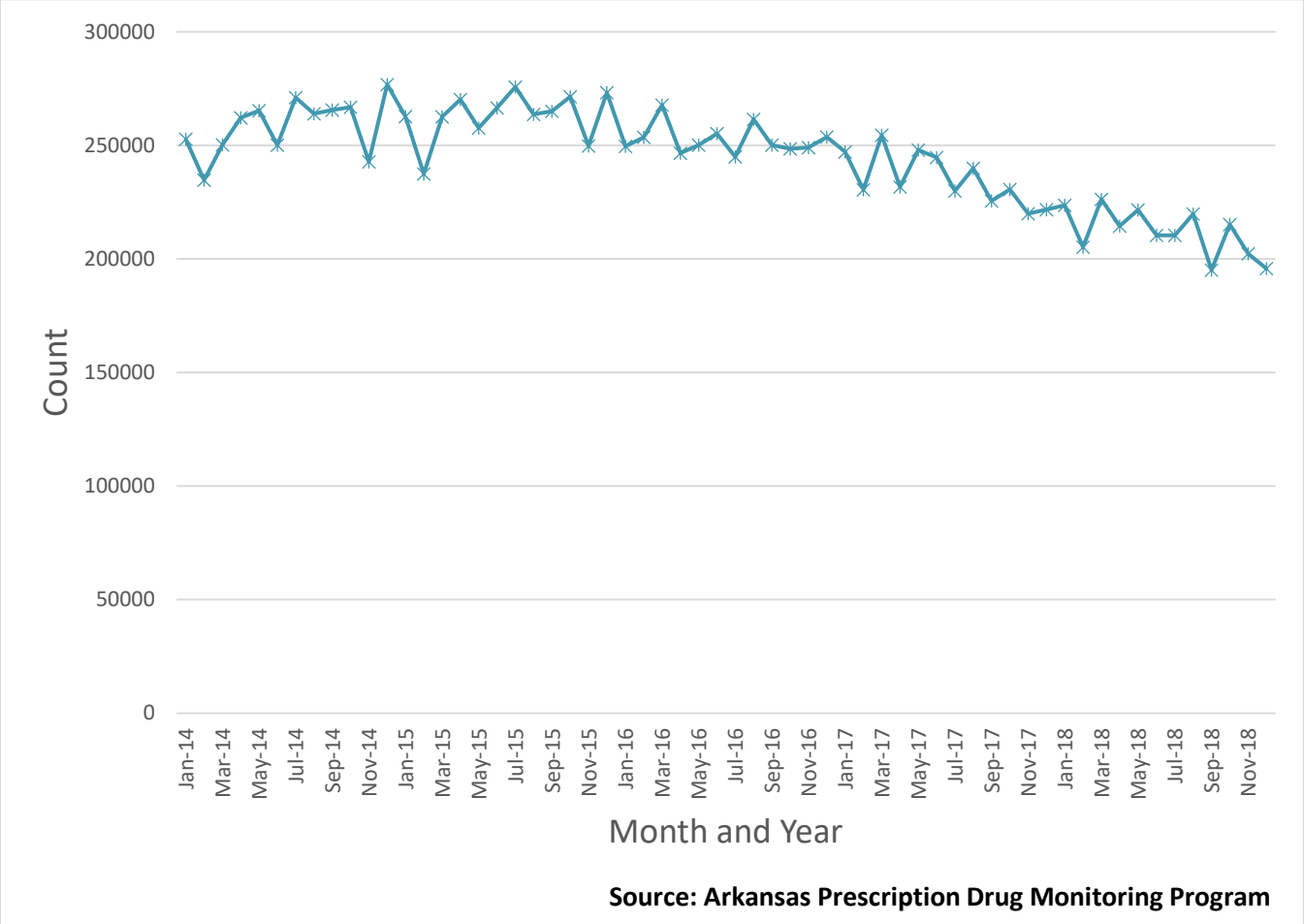
Table 2: Top-Selling Prescription Drugs by Class—Arkansas, 2018

Rank	Drug Type	Pills Sold	Number of Prescriptions
1	Opioid	186,424,459	3,283,428
2	Benzo	86,029,755	1,739,022
3	Stimulant	26,846,338	762,057
4	Zolpidem	14,236,720	499,592
5	Muscle Relaxant	5,869,053	93,071
Total		319,406,325	6,377,170

Opioid Prescribing in Arkansas

The number of opioid prescriptions issued monthly from Arkansas prescribers to Arkansas residents is on the decline, from approximately 250,000 opioid prescriptions per month in 2014 to nearly 220,000 opioid prescriptions per month in the later portions of 2018. That is a 12% decrease in 4 years (Figure 3).

Figure 3: Total Opioid Prescriptions from Arkansas Prescribers to Arkansas Patients—Arkansas, 2014-2018

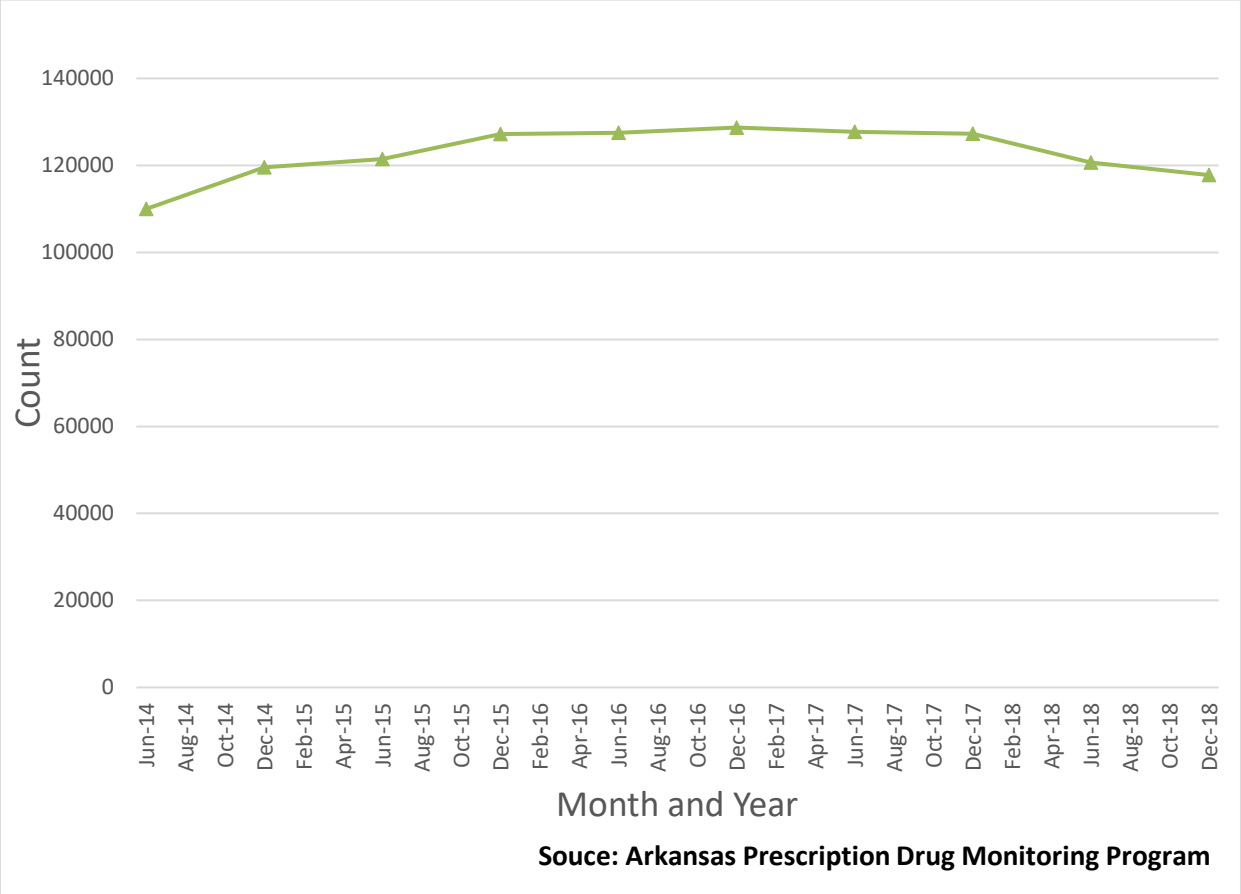


Source: Arkansas Prescription Drug Monitoring Program

Chronic Pain—Opioid Patients

While the number of opioid prescriptions being dispensed in the state has declined over the past 4 years, the number of chronic opioid users remains relatively stable. A chronic opioid user is defined as a patient who received 90 days of an opioid prescription in a 180-day period, with no more than a 30-day gap in usage. The number of Arkansans on chronic opioid therapy in any given 180-day period is between 120,000 to 130,000. However, even at its lowest, that number shows that almost 4% of Arkansans are on chronic opioids in any given 180-day period (Figure 4).

Figure 4: Number of Chronic Opioid Users in Arkansas Prescribed by Arkansas Prescribers—Arkansas, 2014-2018

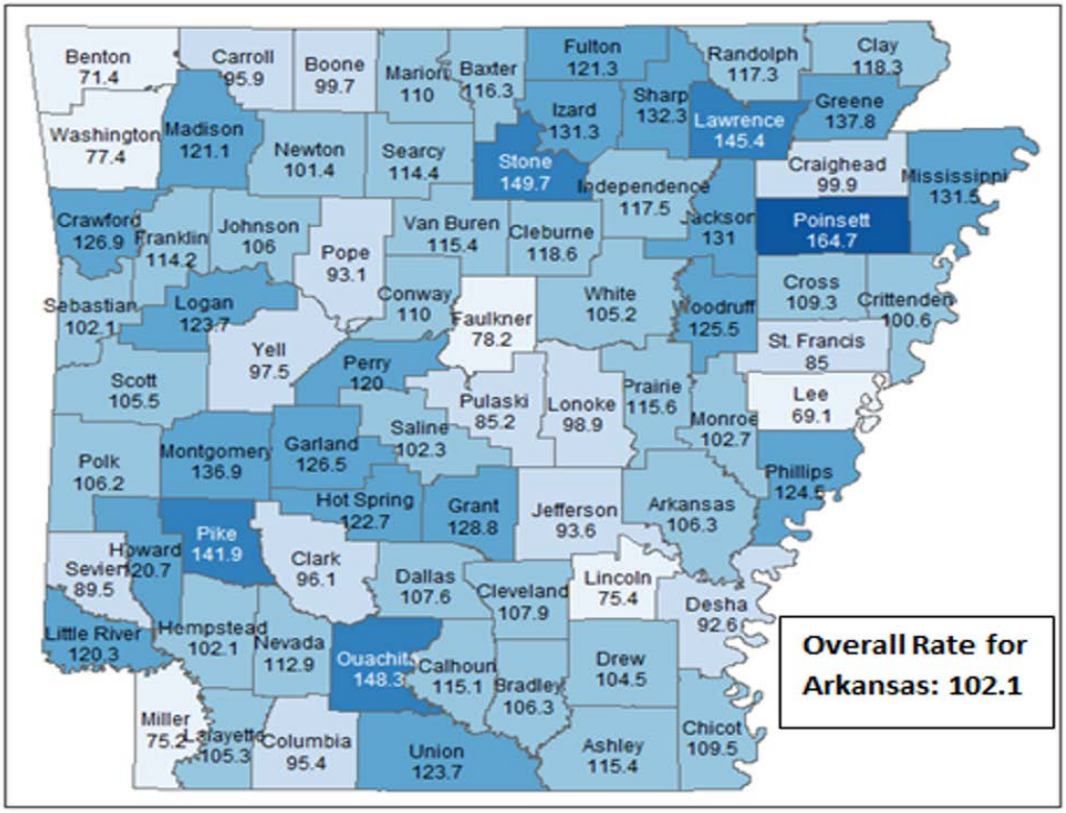


Souce: Arkansas Prescription Drug Monitoring Program

County Rates for Opioids

For the state, the opioid prescription rate per 100 people in 2018 was 102.1. To put this figure into perspective, a rate of 102.1 opioid prescriptions per 100 people suggests that there were more opioid prescriptions dispensed in the state than there are Arkansas residents. Even though this number has been decreasing in the past couple years, Arkansas is almost double the Centers for Disease Control's (CDC) determined national average rate of 58.7 per 100 in 2017. Every county in the state is over this national average with the highest prescribing counties being Poinsett (164.7), Stone (149.7), Ouachita (148.3) and Lawrence (145.4) (Figure 5). Counties are determined by the addresses of patients who received the prescription. Therefore, the map does not reflect the rates of prescriptions from providers in each county, but instead rates of prescriptions received by individuals in the county.

Figure 5: Opioid* Prescription Rates per 100 People per County Based on the Address of the Patient—Arkansas, 2018



*Note: Does not include buprenorphine products

Source: Arkansas Prescription Drug Monitoring Program

Opioid by Types

Since opioids are the most prescribed controlled drug type for the state, it is important to identify which specific opioids are being prescribed the most. In 2018 the top three types of opioids dispensed were hydrocodone, tramadol, and oxycodone. These three opioids combined make up 82% of all opioid prescriptions dispensed.

The state's highest prescribed opioid in 2018 was hydrocodone, with almost 1.37 million prescriptions. In 2018, hydrocodone accounted for 43% of all the opioid prescriptions sold. In 2015, 111,987,967 hydrocodone pills were dispensed compared to 76,613,992 pills in 2018, which is a 31.5% decrease.

The number of prescriptions for tramadol was almost half of the number for hydrocodone at 702,668, in 2018. Tramadol accounted for 22% of all the opioid prescriptions dispensed in Arkansas. Since 2015, the total number of tramadol pills sold decreased from 58,672,813 to 45,130,539, which is a 23% decrease.

Oxycodone was the third highest dispensed opioid for 2018 in the state with almost 535,000 prescriptions. Oxycodone prescriptions made up 17% of the total opioid prescriptions dispensed in the state. The number of oxycodone pills sold has decreased 31% since 2015 from 50,244,192 to 34,659,919 (Table 3) (Figure 6).

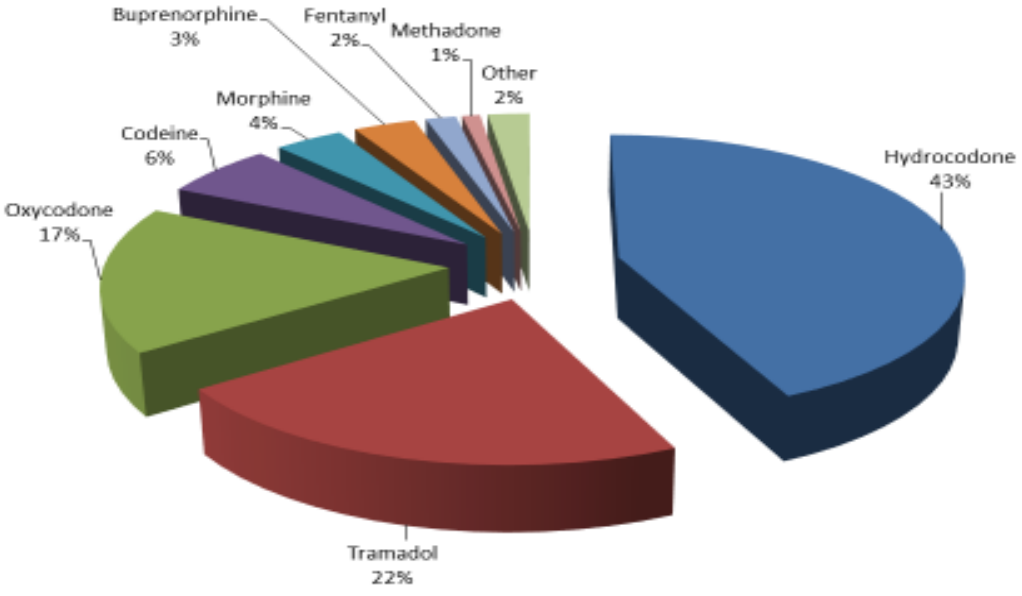
Table 3: Top Five Types of Opioids Dispensed*—Arkansas, 2018

Drug Name	Number of prescriptions	Pill Counts
Hydrocodone	1,369,322	76,613,992
Tramadol	702,668	45,130,539
Oxycodone	534,590	34,659,919
Codeine	192,613	7,734,391
Morphine	116,847	5,542,745

*Note: Filled by AR residents

Source: Arkansas Prescription Drug Monitoring Program

Figure 6: Percentage of Total Opioid Prescriptions by Type—Arkansas, 2018



*Note: Filled by AR residents

Source: Arkansas Prescription Drug Monitoring Program

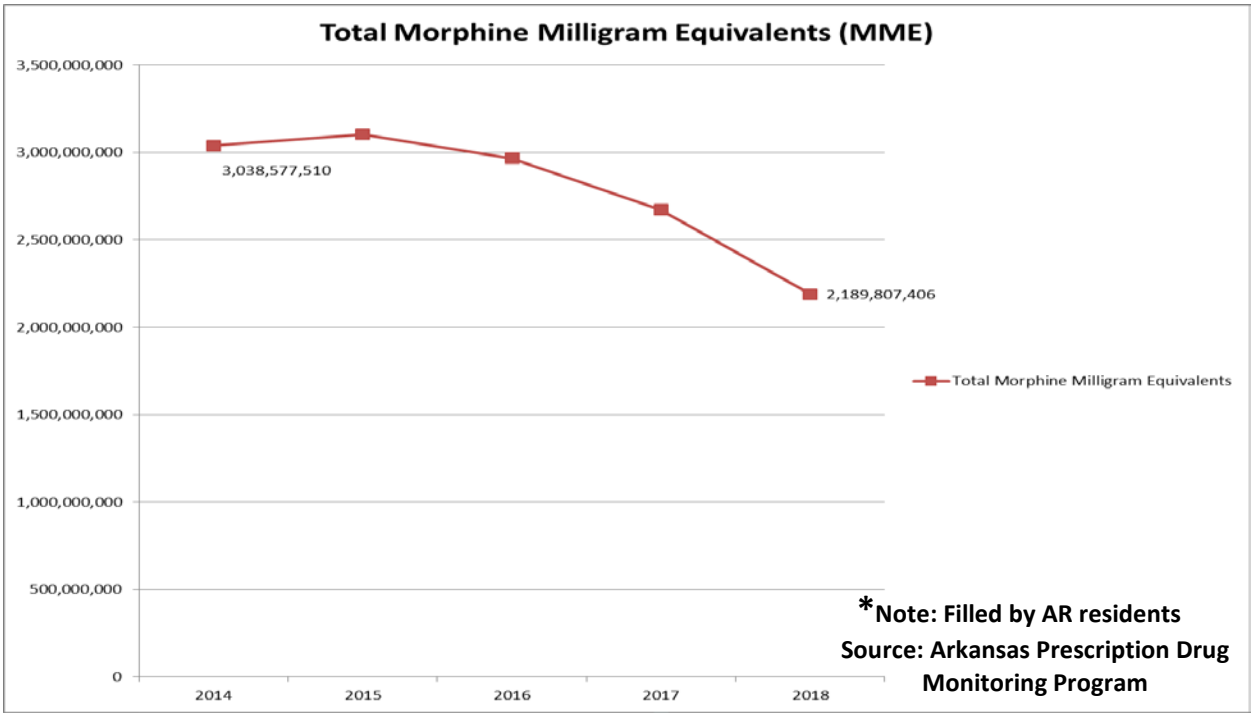
Morphine Milligram Equivalents (MME)

Not all opioids are equal. Some opioid medications are more potent than others; fentanyl is 50-100 times more potent than morphine, as an example. In order to compare the strengths of all opioids across the board, a conversion factor called the morphine milligram equivalent (MME) was established. The higher the MME of a prescription, the higher the risk of overdose. The formula for calculating is:

Strength of opioid X (number of units/days supply) X MME conversion factor = MME/Day

By looking at the trends of MME over the years, the PDMP is able to gauge the overall potency of the total opioid prescriptions dispensed in Arkansas. From 2014 to 2018, the total morphine milligram equivalent dispensed to Arkansas residents decreased by 28%. Not only has the state seen a decrease in the overall number of prescriptions for opioids and pills sold, there has been a decrease in the total MME dispensed (Figure 7).

Figure 7: Total Morphine Milligram Equivalents Dispensed* Arkansas, 2014-2018

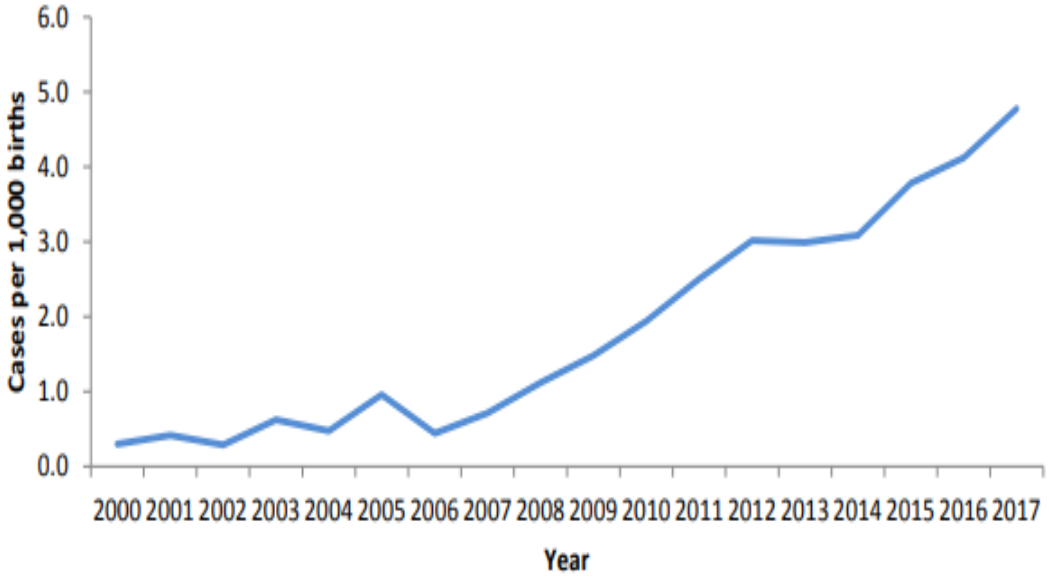


Problems Related to Drug Misuse

Neonatal Abstinence Syndrome

Neonatal Abstinence Syndrome (NAS) is a group of symptoms resulting from drug use during pregnancy. Since 2000, the rate of NAS per 1,000 hospital births increased from 0.3 per 1,000 births to 4.8 per 1,000 births in 2017 (Figure 8). The demographic breakdown of NAS cases in 2017 show the condition is more common among white than non-white Arkansans. Comparing the mother's insurance coverage, NAS rates for women with Medicaid were twice as high as women with other types of insurance. Rates in the northeast and northwestern regions of Arkansas show some of the highest rates. [1]

Figure 8: Rate of Neonatal Abstinence Syndrome per 1,000 Births, Arkansas Residents, 2000-2017*



*Does not include births to Arkansas mothers occurring in out-of-state hospitals

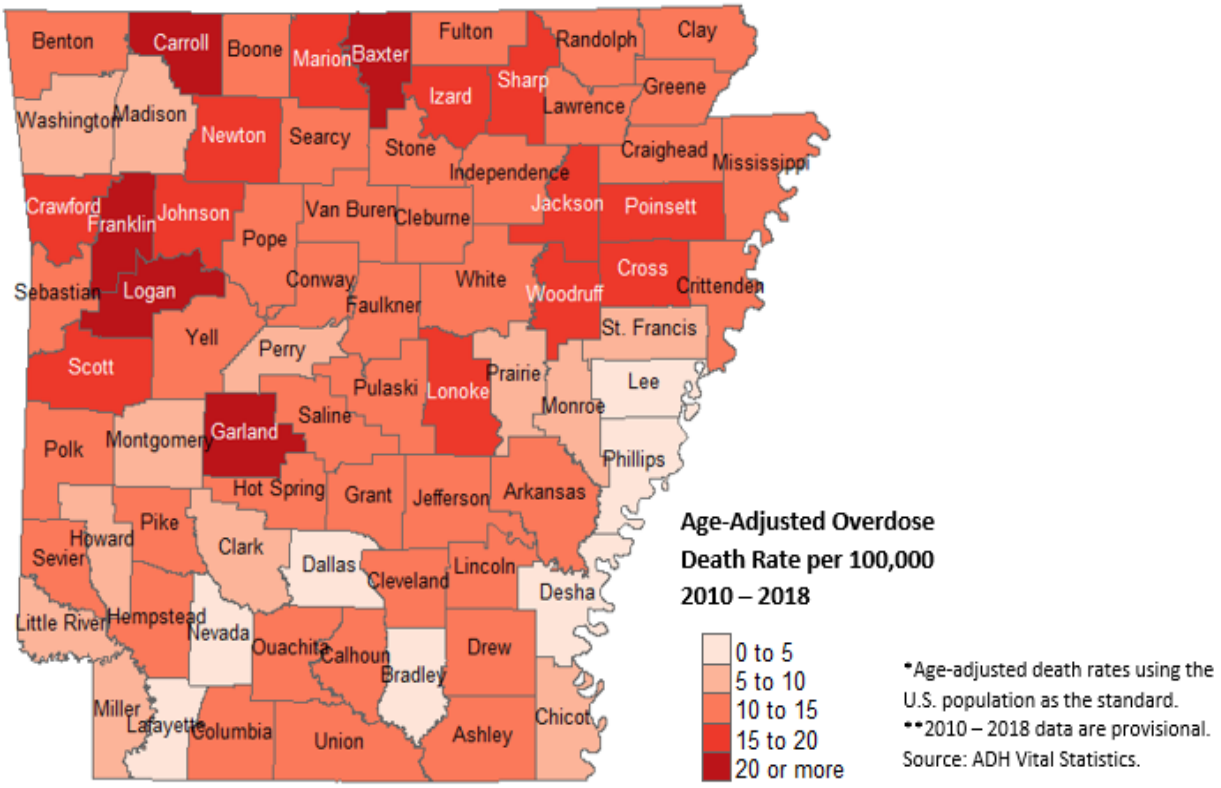
Source: ADH Hospital Discharge Data System

[1] Neonatal Abstinence Syndrome in Arkansas 2000-2017. Arkansas Department of Health.

Overdose Death Rates

According to the Arkansas Department of Health Vital Statistics Section, provisional data based on death certificates indicate that 426 Arkansas residents died from a drug overdose in 2018. This number is an increase from the 417 overdose deaths in 2017. The overdose death rates vary by county, with some of the higher ranking counties found in north central, central and south east Arkansas. The county with the highest overdose death rate is Garland County (Figure 9). Counties are determined by the individual's address of residence.

Figure 9: Overdose Death Rates per 100,000 People per County Based on the Individual's Address-- Arkansas, 2018



Contact Information

Dr. Jamie Turpin, PharmD

Prescription Drug Monitoring Program Administrator

Jamie.turpin@arkansas.gov

DeShawn Bryant

Prescription Drug Monitoring Program Specialist

DeShawn.bryant@arkansas.gov

Arkansas Department of Health

4815 West Markham St., Slot 10

Little Rock, AR 72205

501-683-3960