



# PRESCRIPTION DRUG MONITORING PROGRAM

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## 2021 Annual Report

Arkansas Department of Health

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Little Rock, AR 72205

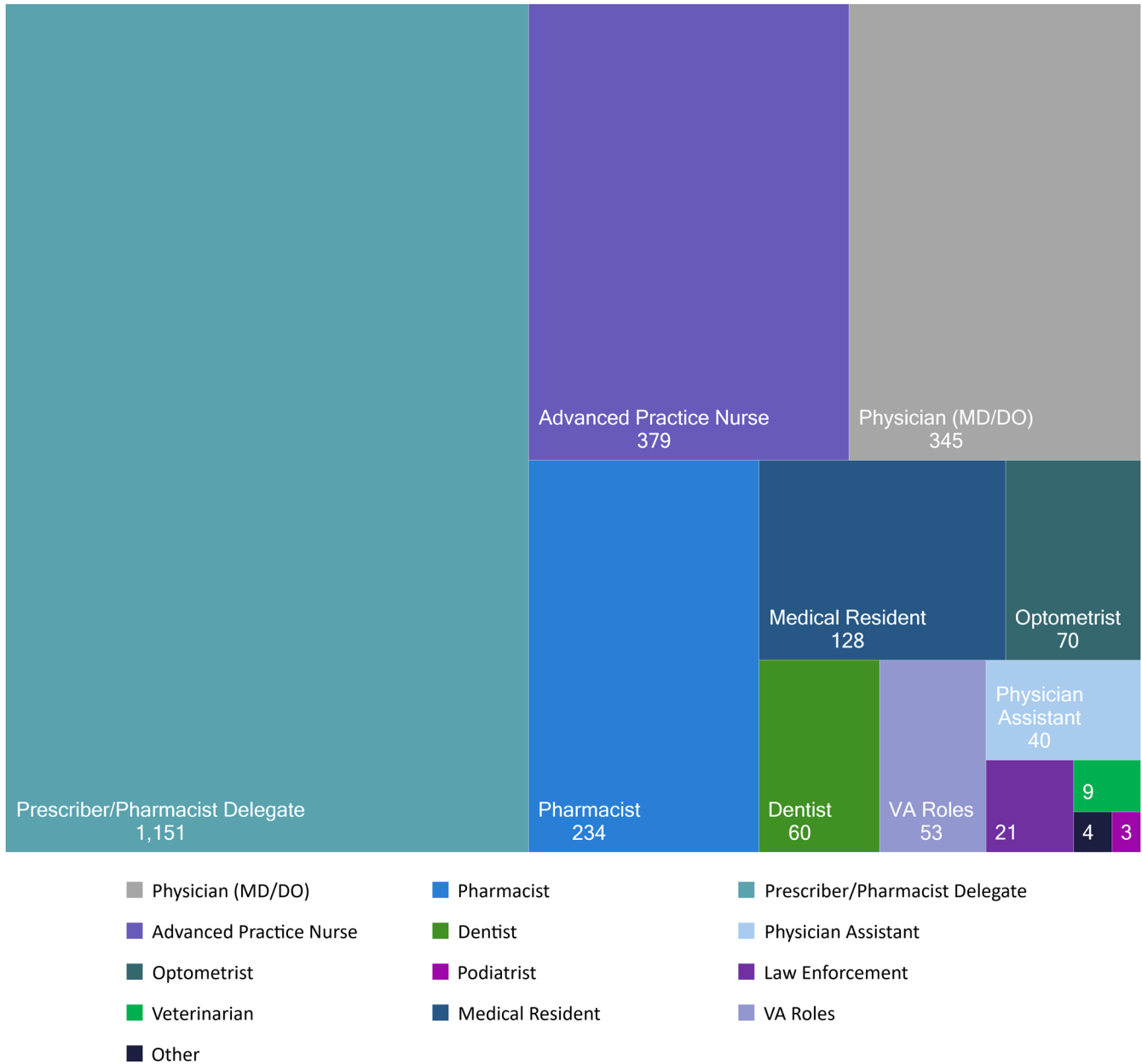


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# User Information

Figure 1: New Registered PDMP Accounts, Arkansas 2021.

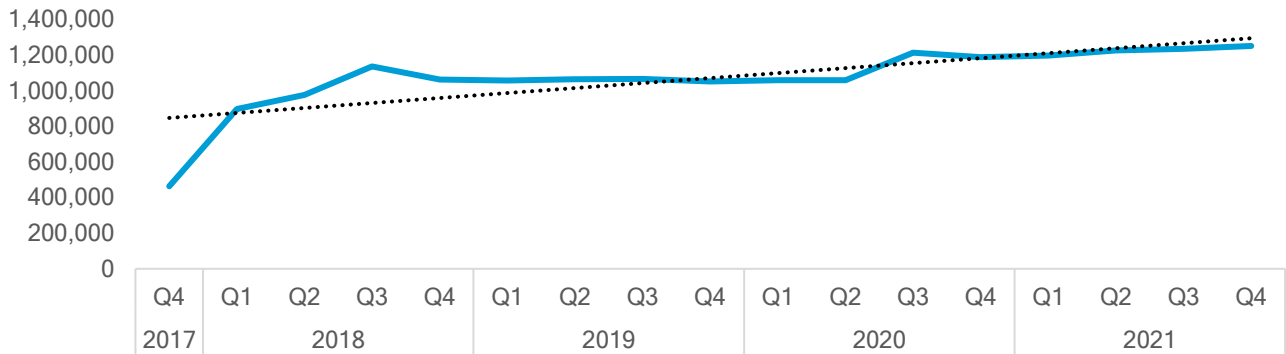


Source: Tableau, Bamboo Health

## PDMP Usage

Since the change to the PMP AWARE web portal system at the end of 2017, queries by Arkansas users of the PDMP has been trending up.

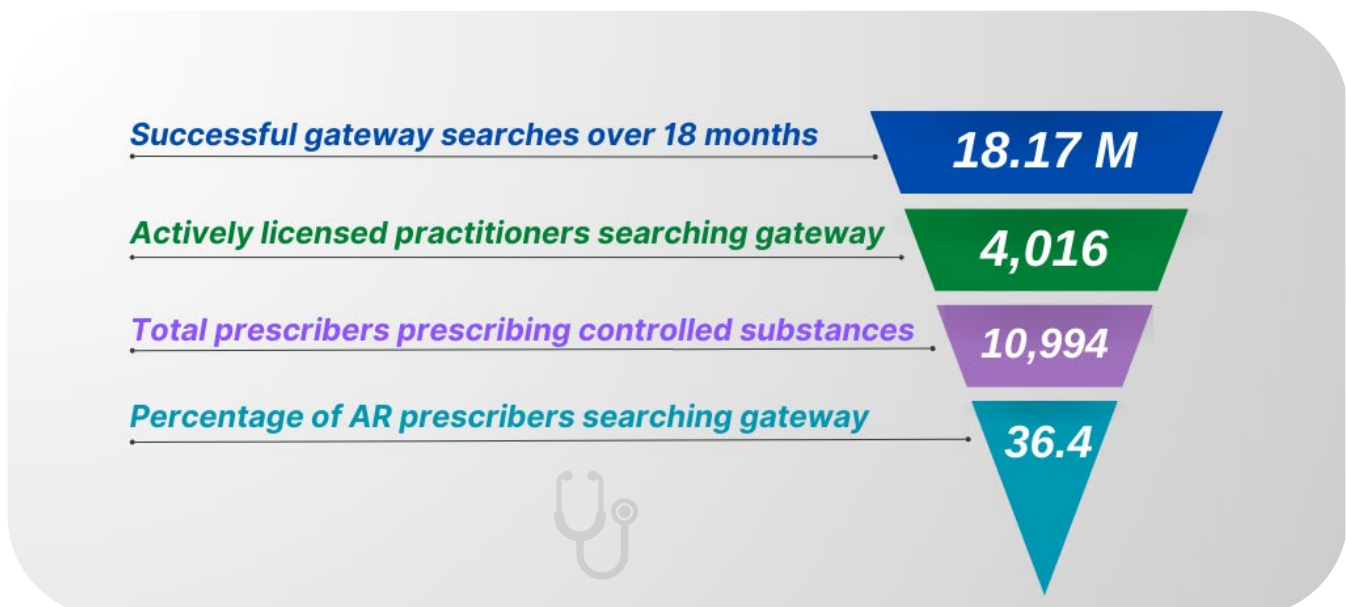
**Figure 2: Total PDMP Queries by AR Users, Arkansas 2021.**



Source: Tableau, Bamboo Health

In 2021, the PDMP was able to support the Gateway integration of the PDMP to electronic health records, pharmacy management systems and health information exchanges. By the end of the year over one third of all Arkansas providers prescribing controlled substances were utilizing the Gateway integration.

**Figure 3: AR PDMP Users Searching Integrated Gateway, Arkansas 2021.**

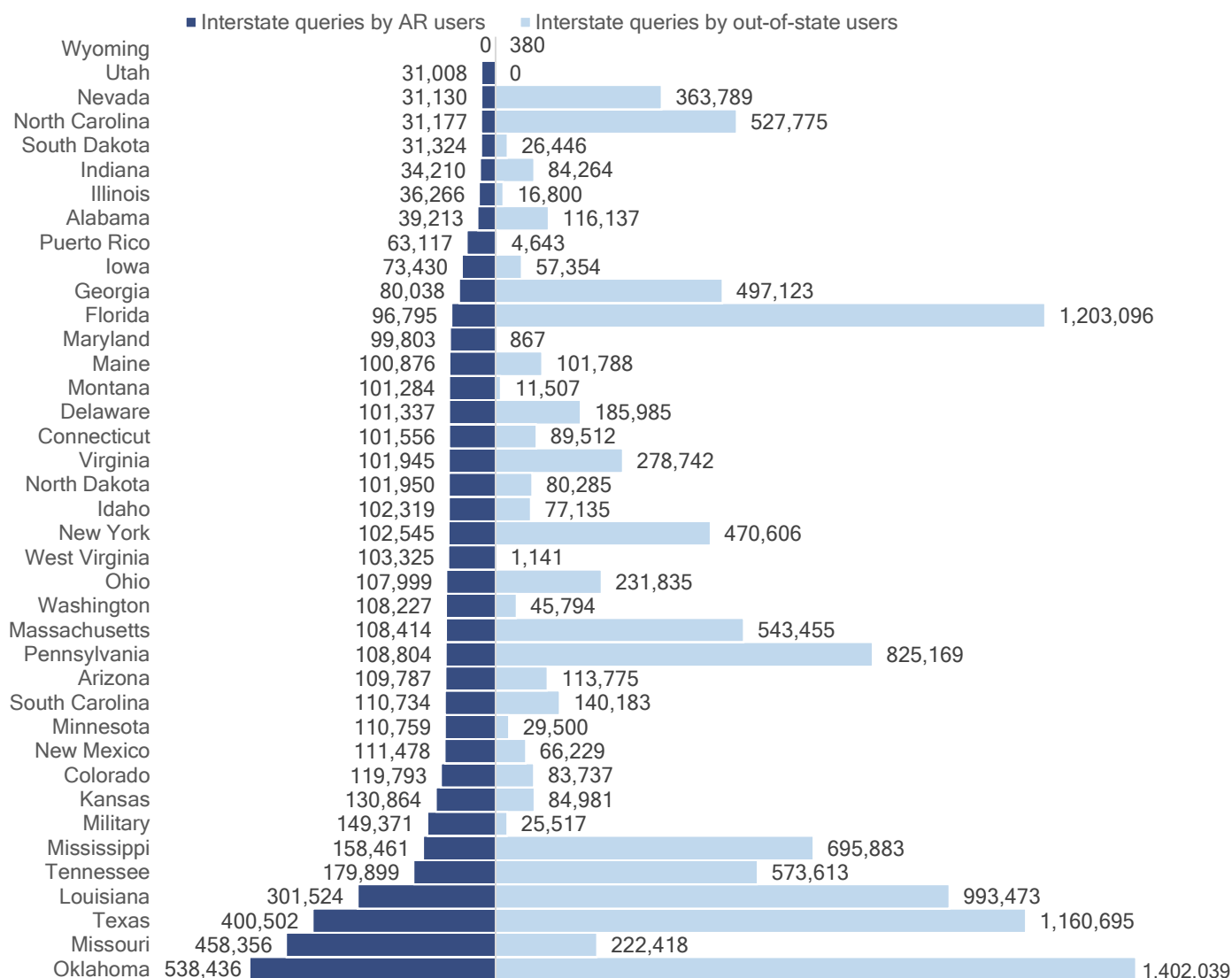


Source: Tableau, Bamboo Health

## Interstate Data Sharing

Arkansas currently has PDMP data sharing agreements with 38 states, the Military Health Systems, Puerto Rico, and Washington DC. Figure 4 shows the interstate queries from 2021. The left side of the chart reflects queries by Arkansas users accessing other states data, and the right side of the chart reflects queries by out-of-state users accessing Arkansas data. A query does not indicate that a patient record was found and returned.

**Figure 4: Interstate query counts between Arkansas and PDMP data sharing locations, 2021.**



Source: Tableau, Bamboo Health

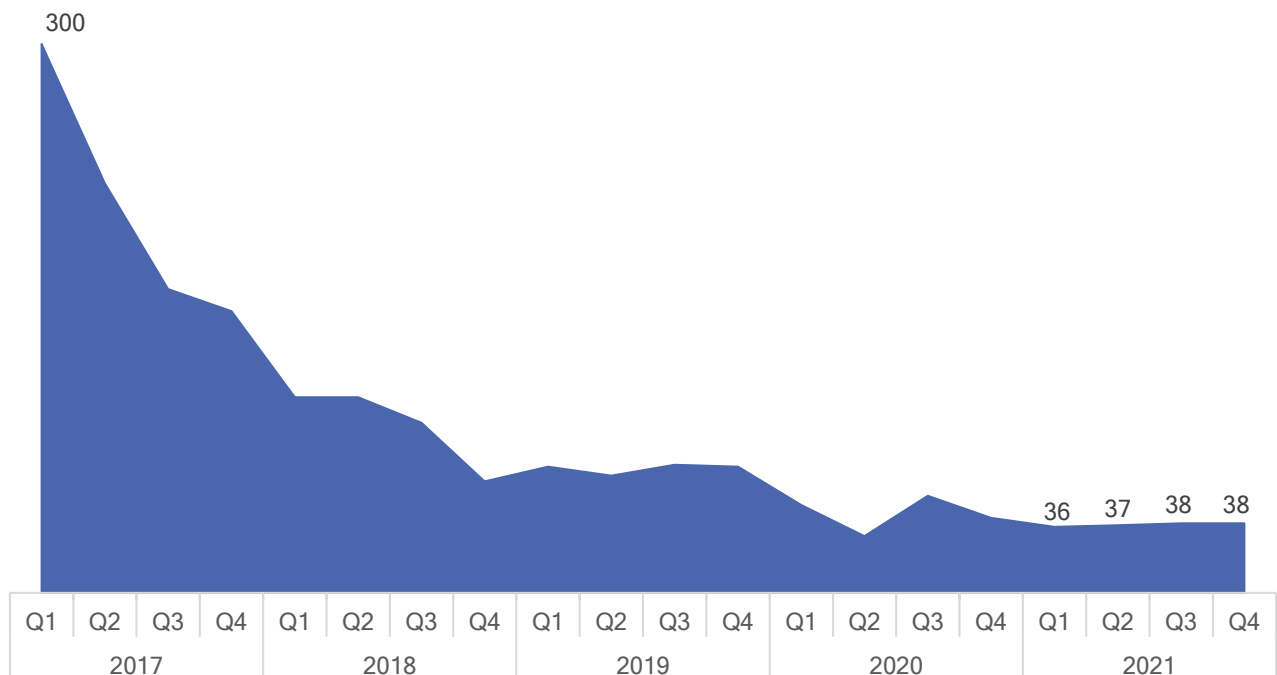
\*Includes only queries with states using the PMP InterConnect system. Does not include Gateway requests.

## Multiple Provider/Dispenser Incidence

The PDMP will alert users if there are patients that seem to have a recent history of controlled prescriptions from multiple providers. The practice of seeking prescriptions for the same medicine or drug class from multiple providers is known as doctor shopping. In Arkansas, the threshold for flagging potential doctor shopping is when a patient fills prescriptions from five different providers at five different pharmacies within 90 days. Once this threshold is met, the PDMP will send a clinical alert to all users associated with the patient.

Arkansas began tracking doctor shopping behavior in 2017. Since then, there has been an 87% decrease in flagged individuals, and in 2021 the numbers were consistently between 36 and 38 individuals each quarter.

**Figure 5: Individuals with Prescriptions from Five or More Prescribers Dispensed at Five or More Pharmacies per Quarter, Arkansas 2017–2021.**



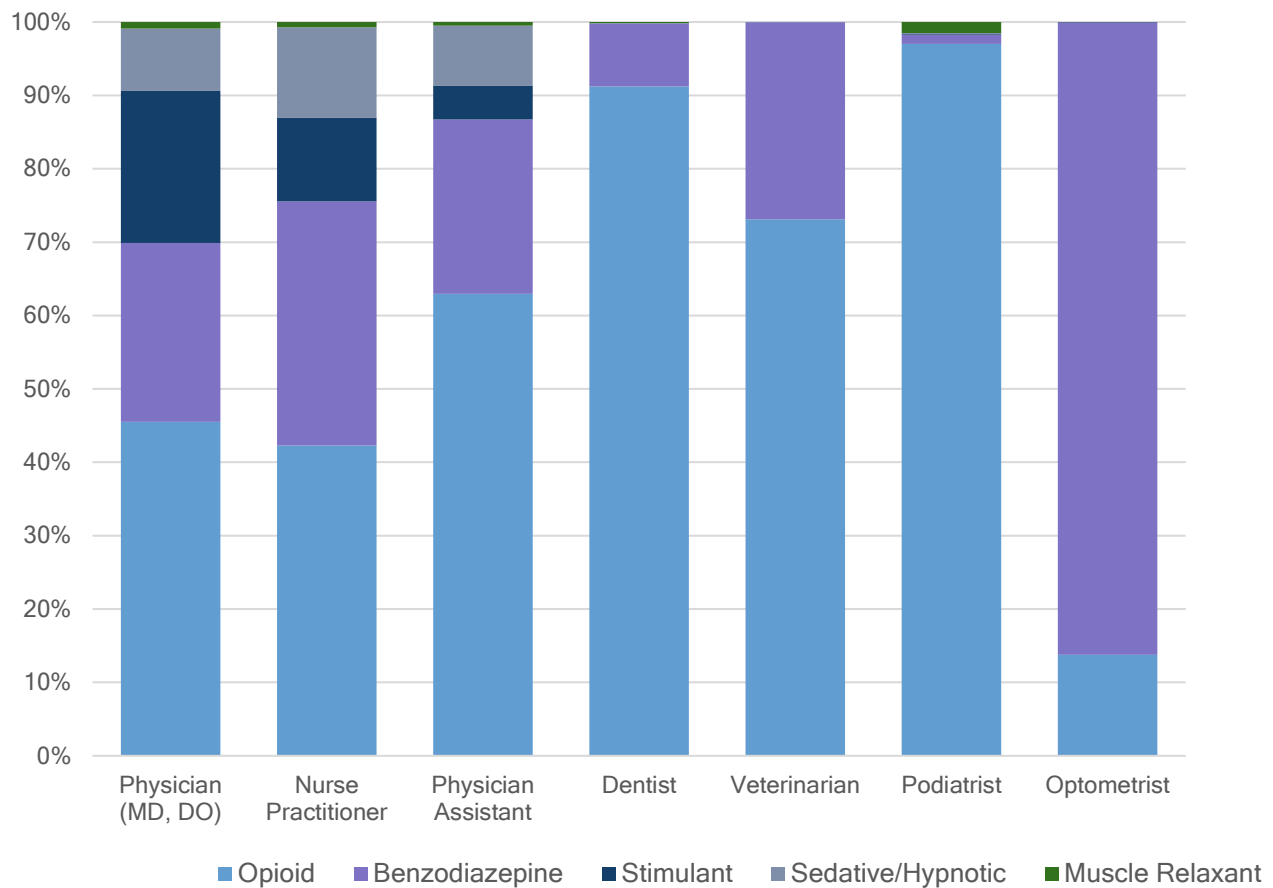
Source: PMP AWARE, Bamboo Health

## Provider Prescribing by Drug Class

Many different provider types prescribe controlled substances in their practice. Professionals that commonly prescribe drugs reported to the PDMP include physicians (both MD and DO), nurse practitioners, physician assistants, dentists, veterinarians, podiatrists, and optometrists.

In 2021, the class with the highest percentage of prescriptions across nearly all provider types were opioids followed by benzodiazepines. The only exception were optometrists, who prescribed benzodiazepines more frequently than opioids.

**Figure 6: Most Frequently Prescribed Drug Classes by AR Providers to AR Residents, Arkansas 2021.**



Source: AR PDMP



# Dispensations by Drug Class

**Table 1: Top Selling Prescription Drugs by Class for AR Residents by AR Prescribers, Arkansas 2021.**

| Drug Class        | Prescriptions*   | Pills Sold**       |
|-------------------|------------------|--------------------|
| Opioid            | 2,677,232        | 141,544,277        |
| Benzodiazepine    | 1,434,249        | 73,637,175         |
| Stimulant         | 1,004,916        | 38,754,858         |
| Sedative/Hypnotic | 499,629          | 16,395,112         |
| Muscle Relaxant   | 45,341           | 3,046,754          |
| <b>Total</b>      | <b>5,661,367</b> | <b>273,378,176</b> |

Source: AR PDMP merged with CDC Opioid List and AHFS Pharmacologic-Therapeutic Classification

\* Includes all dosage forms – liquids, patches, tablets, capsules, suspensions, etc.

\*\*Includes only solid dosage forms – capsules, tablets, pills, etc.

Buprenorphine not removed

## DRUG CLASSES

**Opioids:** Medications used primarily to treat pain. This class of drugs includes hydrocodone, oxycodone, morphine, and others. Opioids also include buprenorphine, a medication used to treat opioid use disorder.

**Benzodiazepines:** Medications often prescribed for anxiety, panic attacks, insomnia, seizures, and muscle spasms. This drug class includes alprazolam, diazepam, and others.

**Stimulants:** Medications commonly prescribed to treat attention deficit hyperactivity disorder and narcolepsy. These drugs include methylphenidate and dextroamphetamine along with phentermine, which is used to treat obesity.

**Sedative/Hypnotics:** Medications prescribed to treat insomnia, including zolpidem, zaleplon and eszopiclone.

**Muscle Relaxants:** Medication prescribed to treat muscle-related symptoms, like spasticity and spasms. The majority of prescriptions are for carisoprodol.

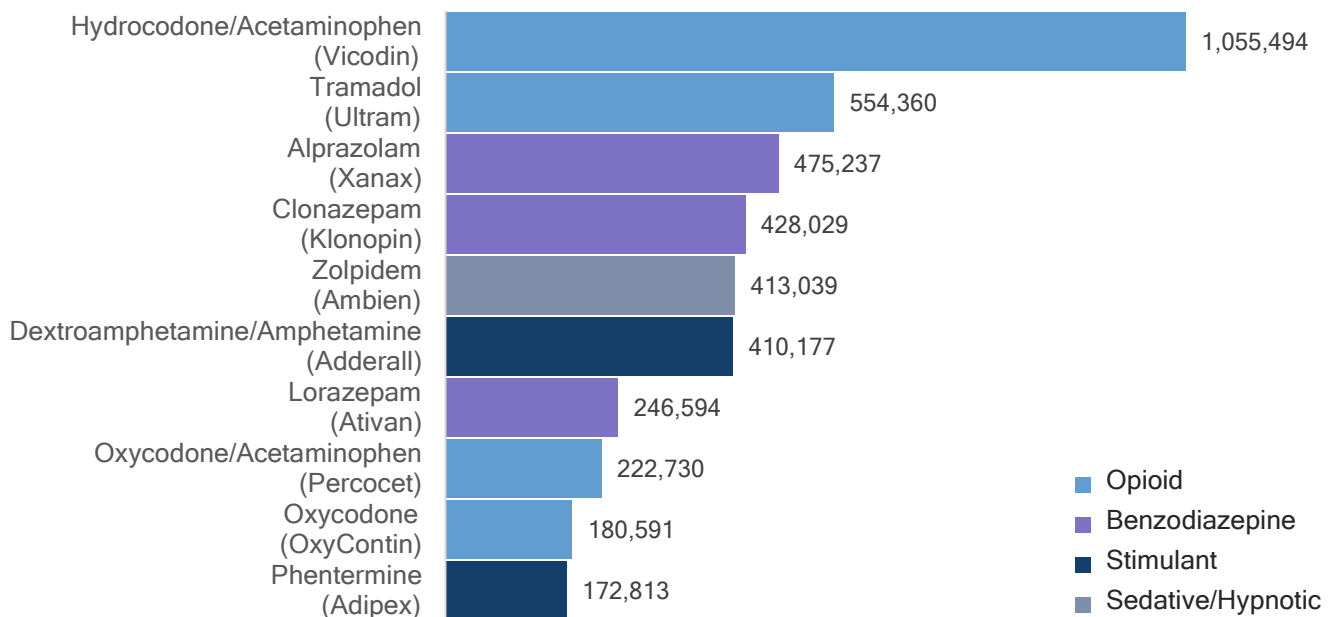


# Dispensations by Prescription Drug

The 10 controlled substances most commonly dispensed and authorized by Arkansas providers to Arkansas residents are shown below. The list is dominated by hydrocodone/acetaminophen, and includes a mixture of opioids, benzodiazepines, stimulants, and sedative/hypnotics. Figure 7 shows the commonly dispensed generic drug names, an example of a brand name, the drug class, and the number of prescriptions filled in 2021.

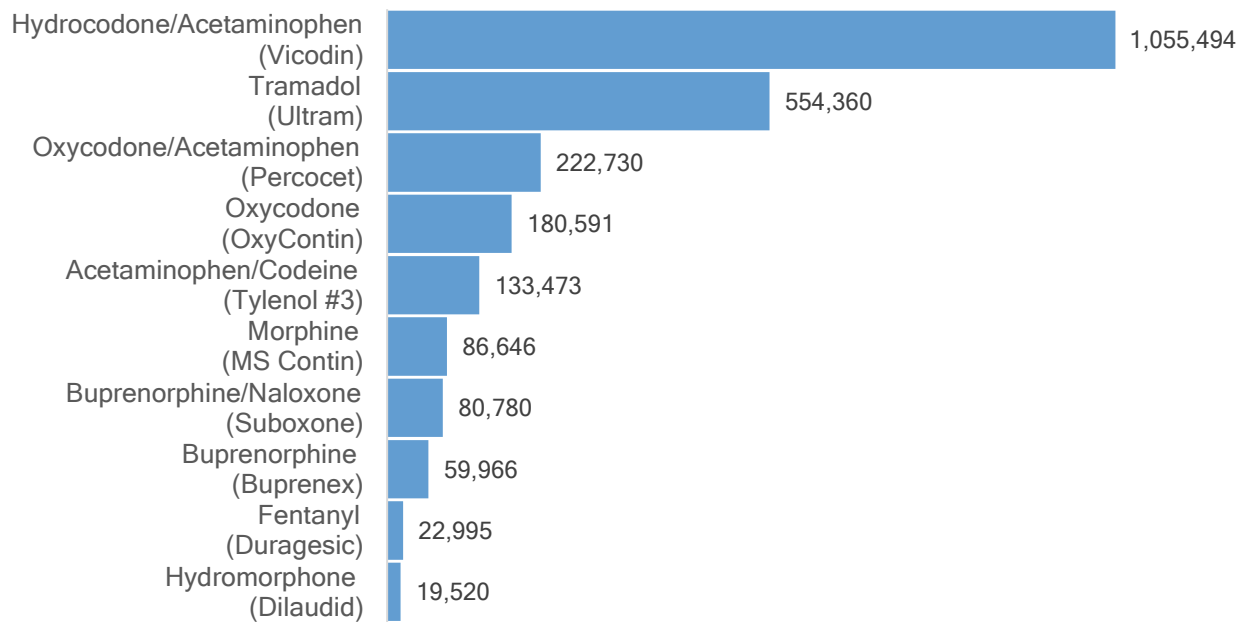
Figures 8 and 9 show the most dispensed opioids and stimulants in 2021.

**Figure 7: Most Frequently Prescribed Controlled Prescription Drugs by AR Providers to AR Residents, Arkansas 2021.**



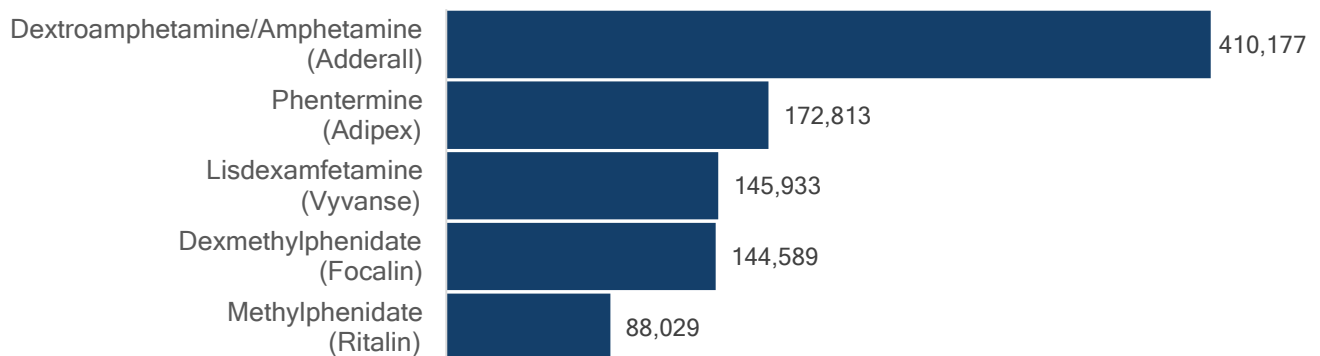
Source: AR PDMP merged with CDC Opioid List and AHFS Pharmacologic-Therapeutic Classification

**Figure 8: Most Frequently Prescribed Opioids by AR Providers to AR Residents, Arkansas 2021.**



Source: AR PDMP merged with CDC Opioid List and AHFS Pharmacologic-Therapeutic Classification

**Figure 9: Most Frequently Prescribed Stimulants by AR Providers to AR Residents, Arkansas 2021.**

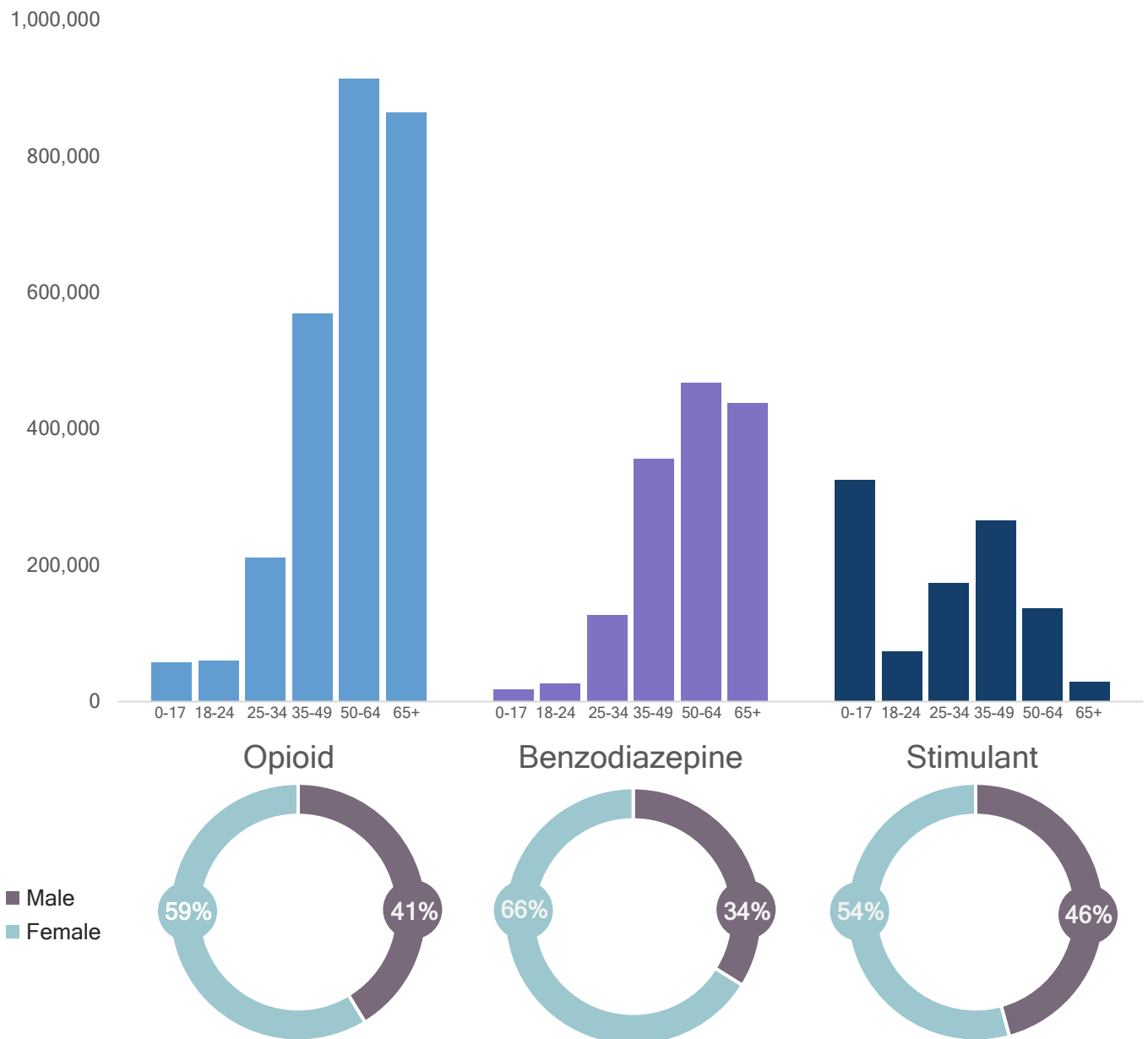


Source: AR PDMP merged with CDC Opioid List and AHFS Pharmacologic-Therapeutic Classification

# Dispensations by Age and Sex

Drug class prescribing varies by the age and gender of the patient. In Arkansas, the majority of prescriptions across all classes were prescribed to females. In 2021, the age distribution for stimulants were distinctly different compared to opioids and benzodiazepines.

**Figure 10: Opioid, Benzodiazepine, and Stimulant Prescriptions by Age and Sex, Arkansas 2021.**

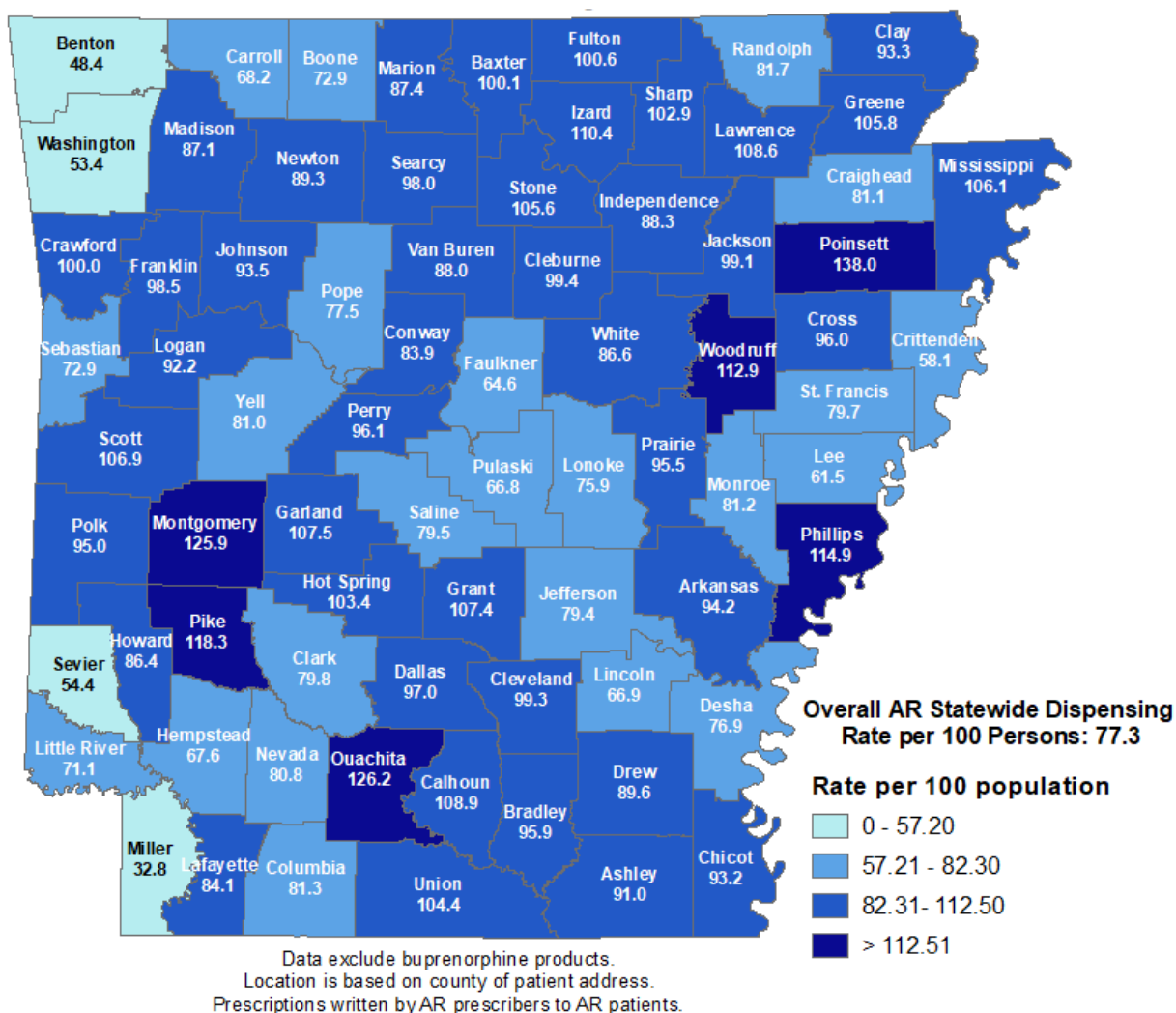


Source: AR PDMP merged with CDC Opioid List and AHFS Pharmacologic-Therapeutic Classification Prescriptions written by AR prescribers to AR residents

# Opioid County Rates

The opioid dispensing rate describes the number of opioid prescriptions dispensed per 100 people. In 2021, Arkansas had an opioid dispensing rate of 77.27. Individual counties ranged from 32.83 (Miller County) to 138.04 (Poinsett). There are 22 counties in Arkansas that had dispensing rates over 100, which means that more than one opioid prescription per person was dispensed in 2021.

**Figure 11: Opioid Dispensing Rates per 100 People per County, Arkansas 2021.**



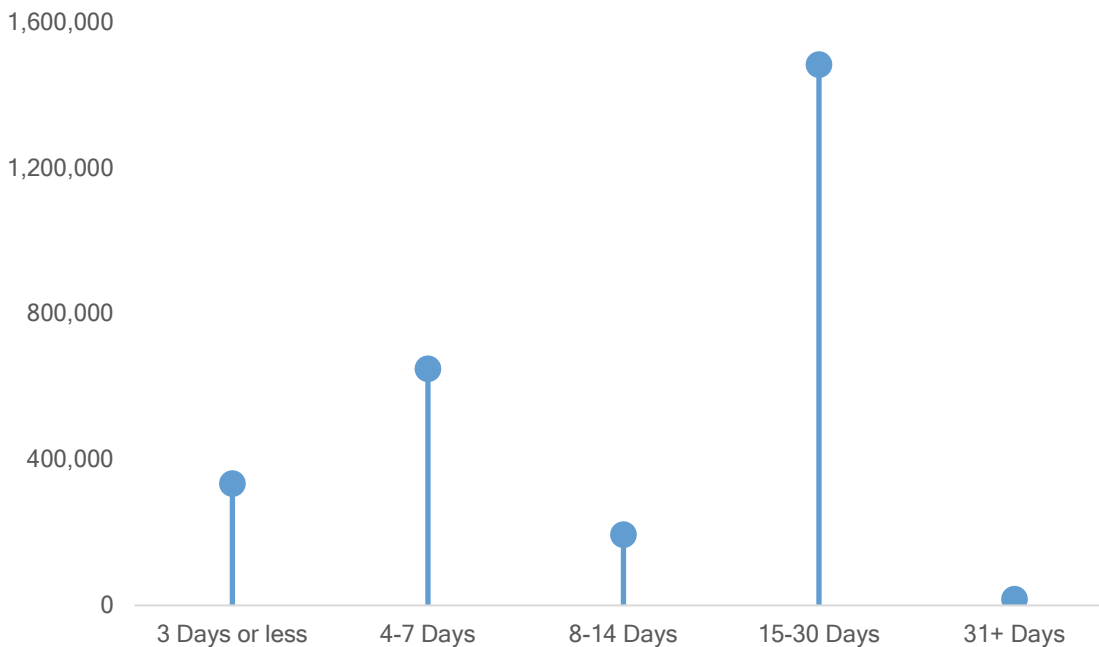
Source: AR PDMP

# Opioid Prescription Duration

In 2016 the CDC released guidelines for prescribing opioids for chronic pain in an effort to encourage safe opioid prescribing practices. The guidelines state that when treating acute pain, the duration of the prescription should be no longer than needed for the pain, which is typically three days or less, and that longer than 7 days is rarely needed. The CDC encourages clinicians to evaluate the efficacy of long-term opioid treatment within a month and re-evaluate every three months.

Figure 12 shows that in Arkansas there were far more prescriptions with a duration of 2-4 weeks than any other length of time in 2021.

**Figure 12: Duration of Opioid Prescriptions for AR Residents by AR Prescribers, Arkansas 2021.**



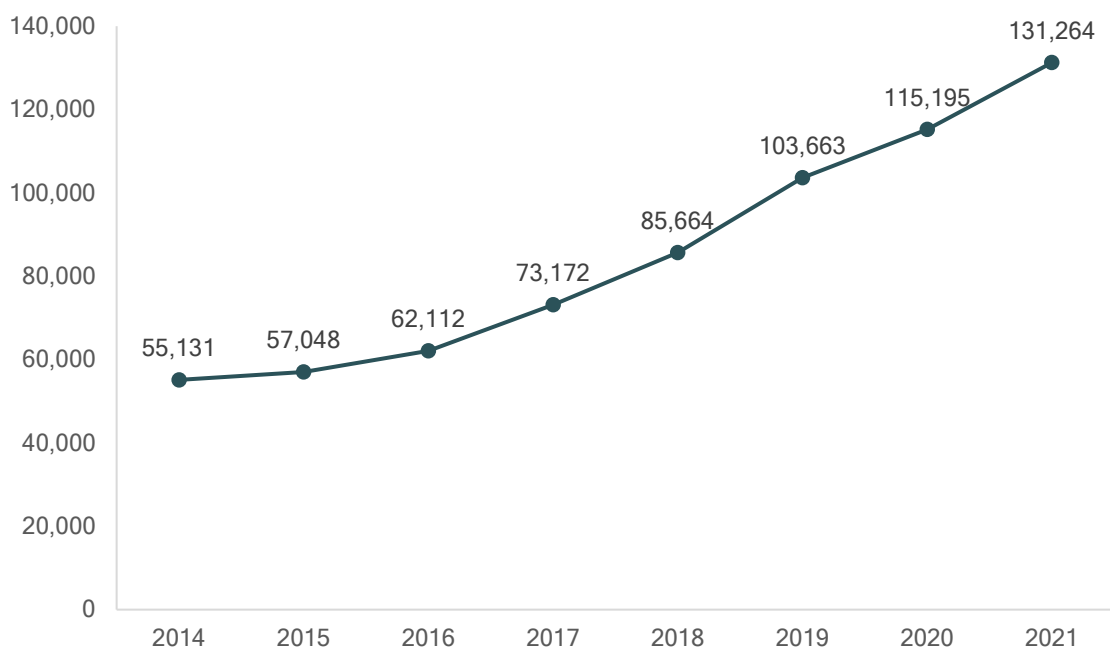
Source: AR PDMP

# Buprenorphine

Buprenorphine is an opioid partial agonist that suppresses or reduces cravings for opioids and can be prescribed to treat Opioid Use Disorder (OUD). Buprenorphine is commonly combined with naloxone for treatment of OUD.

Since the Arkansas PDMP began tracking prescriptions in 2014, prescriptions for buprenorphine products have been steadily rising.

**Figure 13: Buprenorphine Prescriptions by Year for AR Residents by AR Prescribers, Arkansas 2014-2021.**



Source: AR PDMP

# Acknowledgements

## Prescription Drug Monitoring Program Staff

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