

Using Prescription Drug Monitoring Program Data to Support Prevention Planning—*At-a-Glance!*

Since 2000, there has been a 200% increase in the rate of overdose deaths involving opioids. In 2014, 28,647 drug overdose deaths involved some type of opioid. While heroin alone was involved in 37% of these deaths, other opioids—including many commonly prescribed pain relievers—were involved in the remaining two-thirds.¹

To track the prescribing and dispensing of controlled substances such as opioids, 49 states and the District of Columbia have legislatively mandated the creation of Prescription Drug Monitoring Programs (PDMPs). This practice-support tool offers a brief introduction to these programs, highlighting how practitioners can use PDMP data to prevent prescription drug misuse in their states and communities.

WHAT ARE PRESCRIPTION DRUG MONITORING PROGRAMS?

- **PDMPs are statewide electronic data systems that collect, analyze, and make available prescription data on controlled substances dispensed by non-hospital pharmacies and practitioners.**² These data can be used in a variety of ways to address the prescription drug and opioid epidemics, making PDMPs key public health and safety tools.

WHAT TYPES OF DATA DO PDMPs COLLECT?

- **All PDMPs collect the following information:**
 - Type of drug dispensed
 - Quantity of drug dispensed
 - Number of days a given quantity is supposed to last (“days supply”)
 - Date dispensed
 - Prescriber and pharmacy identifiers

¹ CDC. Wide-ranging online data for epidemiologic research (WONDER). Atlanta, GA: CDC, National Center for Health Statistics; 2016. Available at <http://wonder.cdc.gov>. Opioid-overdose deaths were calculated using underlying cause-of-death codes X40-44, X60-64, X85, and Y10-14; and T40.0, T40.1, T40.2, T40.3, T40.4, and T40.6 as contributing causes.

² Drugs considered to be controlled substances are placed into five different schedules. The placement of the substance is dependent on whether they have currently accepted medical use, relative abuse potential, and the likelihood of causing dependence. See <https://www.dea.gov/druginfo/ds.shtml>. In addition to scheduled substances, some PDMPs collect data on non-scheduled drugs that are commonly misused, such as butalbital or gabapentin. Butalbital is a sedative that is often used in headache medication, and gabapentin is a non-narcotic drug used for nerve pain.

- Patient identifiers.³
- Some PDMPs also collect data on method of payment (e.g., private insurance, Medicare/Medicaid, cash) and dispensing facility (e.g., Veteran’s Administration, Indian Health Services, retail pharmacies, hospital/clinic pharmacies).
- **PDMP data do not include information on patient race/ethnicity, prescriber specialty (e.g., primary care, oncology), or the patient’s medical condition or diagnoses.**

WHAT CAN PDMP DATA TELL US?

- **PDMP data can help prevention practitioners identify patterns of possible nonmedical or dangerous use of prescription drugs.** PDMP data can reveal:
 - Prescribing rates that may be consistently higher or lower for different types of controlled substances (e.g., opioids, benzodiazepines, stimulants).
 - Providers who are prescribing controlled substances in excessive quantities.
 - Pharmacies that are dispensing controlled substances in excessive quantities.
 - Individuals who are prescribed dangerous combinations of drugs (e.g., concurrent prescriptions for opioids and benzodiazepines).
 - Individuals who may be addicted and receiving multiple prescriptions for commonly misused drugs from multiple prescribers and/or pharmacies—also known as multiple provider episodes (MPEs) or doctor/pharmacy shopping.
 - Geographic locations of patients (down to the zipcode level) who are receiving dangerous combinations of drugs and/or are engaged in doctor/pharmacy shopping.
- Activities such as doctor/pharmacy shopping and over-prescribing, in particular, are often associated with increases in opioid misuse and overdose.⁴

WHO CAN ACCESS PDMP DATA?

- Access to PDMP information is determined by state law. All states with a PDMP allow **prescribers**, and most allow **pharmacists**, to obtain prescription history information on patients under their care.⁵

³ Patient identifiers include name, address, zip code, and date of birth.

⁴ Clark, Thomas; Eadie, John; Kreiner, Peter; Strickler, Gail. (2012). Prescription Drug Monitoring Programs: An Assessment of the Evidence for Best Practices. Prepared for The Pew Charitable Trusts, http://www.pewtrusts.org/~media/assets/0001/pdmp_update_1312013.pdf

⁵ For types of authorized healthcare users of PDMP data by state, see http://www.pdmpassist.org/pdf/Health_Care_Entity_Table.pdf

- Many PDMPs provide this information to other stakeholders as well, such as **law enforcement, medical licensing and regulatory boards, state Medicaid programs, and medical examiners or coroners. Some PDMPs are also authorized to release de-identified data (i.e., data that is stripped of all identifiers) for research and prevention purposes.** The table below shows how many states authorize access to these different groups of stakeholders.

PDMP Authorized Users	Number of States*
Prescribers	49
Dispensers	49
Law Enforcement	47
Regulatory Licensing Boards	45
Researchers	44
Patients	38
Medical Examiners/Coroner	36
Substance Abuse Treatment Providers	12
Drug Courts	12

*Missouri does not have legislation to enable a PDMP.

- Some PDMPs are proactive in sending notifications to physicians informing them of patients who may be doctor shopping or receiving dangerous drug combinations or amounts. Some PDMPs also notify practitioners flagged as prescribing opioids more often than their peers. These prescriber “report cards” suggest that they review their prescribing behavior.

HOW CAN PDMP DATA SUPPORT PREVENTION EFFORTS?

Practitioners working to prevent and/or reduce prescription drug misuse and opioid overdose can use PDMP data in a variety of ways:

- **To identify and/or refine priorities.** PDMP data can offer a compelling, real-time snapshot of opioid prescribing rates in a state, region, or community. For example, PDMP data may reveal that hydrocodone and oxycodone are the most commonly prescribed opioids as compared to others. Prevention practitioners can use these data to refine their priorities and engage appropriate stakeholders in prevention efforts.
- **To target prevention efforts.** For example, prevention practitioners can use PDMP data to pin-point the geographic location of patients that are at risk for opioid misuse (e.g., those that are prescribed excessive quantities and/or are engaged in doctor/pharmacy shopping). By identifying “hot spots,” they can anticipate where they are likely to see higher rates of opioid-related hospitalizations or overdose deaths and direct resources accordingly.

- **To change prescriber behavior.** For example, a growing number of states have begun sharing PDMP data using prescriber “report cards,” which compare practitioners’ prescribing practices to their peers in the same specialty. These reports can alert prescribers about at-risk patients and prompt them to take necessary steps to prevent opioid misuse.
- **To monitor progress and track emerging trends.** Reviewing PDMP data periodically can tell prescribers, pharmacies, and prevention practitioners about new controlled substances about which they need to be cognizant (e.g., if rates of use are increasing).

WHAT ARE THE LIMITATIONS OF PDMP DATA SYSTEMS?

Although PDMPs provide a wealth of data to prescribers, dispensers, and other stakeholders, the data that states collect, as well as the quality, analysis, and dissemination of that data, vary greatly. As prevention practitioners look to PDMPs for information, understanding the limitations of PDMP data is critical. Some of the key limitations with respect to prevention planning include the following:

- **PDMP data is not publicly available, and access is limited to authorized users only.** Access to PDMP data varies based on state legislation, funding, and personnel resources. Only a handful of PDMPs have currently authorized prevention practitioners to access and analyze PDMP data.
- **Because PDMPs operate independently within states, and are not currently linked into a larger system, no comprehensive national PDMP prescription data are available.** Moreover, there is no uniform way of accessing PDMP data across states, as data platforms differ by state.
- **PDMPs do not collect data on patients’ race and ethnicity.** This limits the use of PDMP data for identifying non-medical or risky prescription drug use in racial and ethnic groups experiencing health disparities.
- **PDMPs do not include data on physician specialty (though some states obtain this information through other sources) or on patient diagnosis.** This can make it difficult to distinguish nonmedical use from legitimate use (e.g., high opioid doses for cancer pain management as opposed to pediatrics).

HOW CAN I ENHANCE ACCESS TO AND USE OF PDMP DATA?

Prevention practitioners can play an important role in enhancing access to and use of PDMP data. Some strategies include the following:

- **Encourage inter-agency collaboration.** Effective use of PDMP data for public health surveillance and prevention planning relies on close collaboration between the PDMP agency and other stakeholders. Recruiting members of the state PDMP to participate in state epidemiological workgroups, for example—and vice versa—can help create a working relationship between PDMPs and prevention practitioners.

- **Explore channels for releasing and reporting PDMP data.** States often have a standard data release process for obtaining PDMP data. This process varies from state to state and may require stakeholders to create a memorandum of understanding with its PDMP program before accessing its data.
- **Encourage cross-state PDMP data access.** Such access would allow prescribers and dispensers to obtain patients' prescription records from across state lines, thereby providing a more complete picture of patients' in state and out-of-state medication history.

WHERE ELSE CAN PREVENTION PRACTITIONERS FIND DATA ON PRESCRIPTION DRUG MISUSE?

SAMHSA's Center for the Application of Prevention Technologies developed several resources to help practitioners find data on prescription drug misuse. Available on the Prevention Solutions@EDC website (preventionsolutions.edc.org), these include:

[Preventing Prescription Drug Misuse: Data Resources](#)

[Locating Data on Risk Factors for Opioid Overdose](#)