



Policy Changes Could Bolster Prescription Drug Monitoring Programs

Data can help identify drug use trends and overprescribing, link patients to treatment

Overview

High rates of opioid prescribing have contributed to the current U.S. opioid epidemic and the steady increase in overdose deaths across the country. Prescribers wrote an all-time high of 255 million opioid prescriptions in 2012, and though that rate has since declined, the amount of opioids prescribed per person remained three times higher in 2015 than it was in 1999. In 2017, there were more than 47,000 deaths attributed to opioids; over one-third of them (17,029) involved prescription opioids. And data show that approximately 80 percent of people who use heroin had previously misused prescription opioids.

To address the high rate of prescribing, every state except Missouri has implemented a prescription drug monitoring program (PDMP), which documents a patient's controlled substance prescription history.¹ These state-based electronic databases help health care providers decide whether to prescribe an opioid or other controlled substance by detecting patterns of misuse and alerting providers to patients who may be at risk of a substance use disorder. After reviewing a patient's profile in a PDMP, a prescriber may decide to have a conversation about safety concerns and can respond clinically by making referrals to pain specialists or for mental health or substance use treatment. The PDMP data also can reduce doctor shopping, which occurs when patients visit multiple clinicians for the same or similar drugs in a specific time frame.

This brief describes promising approaches for the use of PDMPs to improve public health and help providers deliver high-quality care to their patients.

State and local policies and practices that use PDMP data

Public health officials can use information from PDMPs—either alone or in combination with other data—to better understand prescribing patterns in their community and implement appropriate interventions. As of July 2019, 47 states and the District of Columbia have the statutory authority to release state PDMP data to officials requesting it for research, epidemiological, or educational purposes, although just 27 states have done so.² As a result, many local health departments, universities, and other relevant entities are not able to use PDMP data.

Aggregate PDMP data to explore the scope of the epidemic

Aggregate PDMP data refers to PDMP information without patient or prescriber identifying details that has been collated to understand overarching prescription drug trends in a state or area. Such data can be valuable for public health officials. Despite the nationwide drop in opioid prescribing rates since 2012, significant state variation exists: For example, the opioid prescribing rate is almost four times higher in Alabama than in the District of Columbia.³ Similarly, critical differences in opioid prescribing persist within states: In Georgia, for example, opioid prescribing rates vary by a factor of 300 between low-prescribing counties (Crawford, Dooly, and Twiggs) and high-prescribing ones (Ware, Haralson).⁴ State and county health officials can use such prescribing differences to determine whether clinicians in their area would benefit from additional education.

Local health officials could also use state PDMP data to examine the co-prescribing rates of benzodiazepines, which are involved in about 30 percent of opioid-related overdose deaths.⁵ A North Carolina study found that overdose death rates were 10 times higher among individuals who received benzodiazepines and opioids concurrently compared with people who received opioids only.⁶ In 2016, the Food and Drug Administration issued black box warnings—the strongest cautionary label available—alerting providers and patients of the serious risks of combining these medications, and that same year the Centers for Disease Control and Prevention released the Guideline for Prescribing Opioids for Chronic Pain, encouraging physicians to decrease the co-prescription of opioids and benzodiazepines when appropriate.⁷

Finally, combining PDMP data with information from other data sources may allow officials to examine more complex questions. For example, when Massachusetts public health officials combined PDMP and death certificate data, they found that only 8.3 percent of individuals who died from prescription opioid-related overdoses had an active opioid prescription in the PDMP, suggesting that they received opioids outside a prescription. Their findings reveal that, because PDMPs capture only prescribed drugs, Massachusetts also needs prevention and harm reduction strategies—such as increasing patient education or establishing naloxone access laws—to address illicit drug use.

Recommendation

State and local public health officials, along with program administrators, should use aggregate PDMP data to better understand the prescribing of opioids and other controlled substances in their community—and to design interventions. Because only 27 of the 48 jurisdictions with the statutory authority to share data have done so, states should examine whether the statutory language may need to be clarified or whether there are practical challenges around sharing PDMP data that do not include any personal identifiers (e.g., name, birth date) that need to be addressed. The goal of examining aggregate PDMP data should not be to eliminate the prescribing of controlled substances but to identify areas in which the community is an outlier and opportunities to improve health outcomes.

Additionally, barriers to analyzing PDMP data alongside other datasets should be removed. For example, in 2015, Massachusetts passed Chapter 55, which permits the state Department of Public Health to analyze

10 government datasets (e.g., nonscheduled pharmacy claims, treatment data) to guide policy decisions and appropriate allocation of resources.⁸ Policymakers in other states should identify and remove legal obstacles to the linking of datasets for public health purposes.

Use PDMP data to inform overdose fatality reviews

Local teams—typically made up of representatives from state or local agencies (e.g., social services, health), emergency medical services, and hospitals, as well as individuals in recovery and recovery service providers—perform overdose fatality reviews (OFR) to examine drug-related overdose deaths and search for missed opportunities for intervention, including treatment and social services.⁹ Nine states had authorized such reviews as of August 2018, the most recent date for which data are available.¹⁰ Some of the nine states grant OFR teams access to PDMP data, and others do not. Review teams are often responsible for reporting their findings to the governor and/or state legislature; in some cases, local teams make policy and program recommendations based on their findings.¹¹

In Maryland, OFR teams analyze PDMP records and other datasets to inform overdose prevention strategies as part of the state’s Data-Driven Responses to Prescription Drug Abuse grant from the Bureau of Justice Assistance. These teams have used PDMP data to identify and reach out to the prescribers and other health care providers of individuals who have died from an overdose.¹² As of August 2018, 40 fatality review teams in Maryland had submitted 689 PDMP requests to the Maryland Department of Health, the state agency that operates the PDMP.¹³

Recommendation

States that join the nine states that have already authorized OFRs should allow local teams to access PDMP data, because knowledge of a patient’s prescription history can help the teams identify trends that may help influence a state’s prevention strategy.

Policies and practices that support PDMPs for clinical decision-making

Prescribers and pharmacists use PDMPs to inform clinical decisions about their patients.¹⁴ Many states have recently implemented policies to promote greater use of these systems as a clinical decision support tool:

- Forty-one states have adopted prescriber use mandates, which are laws that require health care providers to consult the PDMP under certain circumstances;¹⁵
- Forty-seven states share PDMP data with other states;¹⁶ and
- Thirty-six states send unsolicited reports, or proactive communications, to prescribers to flag potentially harmful drug use or prescribing activity.¹⁷

Fund the evaluation of PDMP enhancements

About half of states have implemented enhancements to the standard PDMP functionality, including alerts when known overdose risk factors are present, such as co-prescribing of opioids and benzodiazepines and high daily average doses of opioids.¹⁸ States have also implemented PDMP enhancements such as data visualizations and maps. Many of these improvements were funded by CDC’s Data-Driven Prevention Initiative and Prevention for States grants and/or the Bureau of Justice Assistance’s Comprehensive Opioid Abuse Program grant. In 2019, CDC released a request for applications for its new Overdose Data to Action grant, which funds efforts that make PDMPs easier to use and access.

Recommendation

As states continue to implement PDMP enhancements, state policymakers should fund research partners (e.g., local universities, independent evaluators) for ongoing PDMP evaluations, which will build an evidence base that can guide future PDMP policy and funding decisions. Several states disseminate the findings from these evaluations through annual PDMP reports provided to the governor and other lawmakers (e.g., state legislature) as required by state statute.

Report nonfatal overdoses to the PDMP

In addition to the tens of thousands of nationwide overdose deaths annually, there are several hundred thousand nonfatal overdoses as well. In 2015, for example, a year with some 52,000 overdose deaths, there were 547,543 emergency department visits and 316,900 hospitalizations related to an overdose.¹⁹ Nonfatal overdose data can serve as an epidemiological early warning system and allow researchers to study overdose trends. Additionally, knowledge of a patient's nonfatal overdose may prompt a health care provider to discuss opioid risks and safety with the patient, prescribe the overdose reversal drug naloxone, and/or refer the patient to substance use treatment. Yet despite these potential benefits, few states require nonfatal overdoses to be reported to the PDMP.²⁰

Wisconsin is one state that does. Any Wisconsin law enforcement officer encountering an individual who is undergoing or has just experienced an overdose is required to report the name and date of birth of the individual to the officer's law enforcement agency (e.g., local or state police)—which, in turn, reports the information to the state PDMP.²¹ Moreover, if a prescription medicine container is found in the person's vicinity, the officer must report the name of the prescribing practitioner, the prescription number, and the name of the drug as it appears on the prescription order or the container.²² In Utah, only overdoses related to *prescribed* controlled substances are reported, while in West Virginia, all overdoses are reported to the PDMP quarterly.²³

Recommendations

Policymakers seeking to incorporate overdose data within their state PDMP should consider requiring any first responder—including emergency medical personnel, health care professionals, and law enforcement—to promptly report information regarding all drug overdoses to the state agency that operates the PDMP, including those caused by illicit substance use, to help ensure that clinicians and others have access to the information in a timely fashion.²⁴ According to the CDC, real-time data are needed to drive rapid, coordinated public health responses.²⁵ (Rhode Island, for example, requires that first responders report this information within 48 hours.)

Finally, state PDMP administrators should work with their vendors and IT departments, who manage the program software, to ensure that prescribers are alerted to overdoses to inform future clinical decisions related to a patient's health. One study found that 91 percent of patients who had overdosed filled another prescription for opioids afterward, and 70 percent continued to receive opioids from the same prescriber who treated them before the overdose.²⁶ Unsolicited reports are a well-established best practice for PDMPs, and as of 2015 (the most recent year that data were available), the practice was adopted by roughly two-thirds of PDMPs.²⁷ This helps get valuable information to busy health care providers, who may not otherwise be aware of the patient's overdose.

Highlight overdose risk factors in the PDMP

Some states have made, or are planning to make, improvements in how patient profiles are presented to prescribers, which could help health care providers more easily assess overdose risk factors outlined in state and federal opioid prescribing guidelines, such as the co-prescribing of opioids and benzodiazepines. Alerts in the

patient's PDMP profile, also called "flags," help providers identify co-prescribing and other overdose risk factors (including high dose prescriptions, duplicative opioid prescriptions, and others) without having to scan a list of controlled substance prescription information and make an assessment based on the raw data.

Long durations of opioid prescriptions for acute pain are associated with an increased likelihood of continued opioid use. Some PDMPs display prescription durations on graphs, which can prompt a prescriber or dispenser's conversation with the patient on pain management or substance use treatment.

Recommendation

PDMP administrators should work with their vendors to incorporate enhancements that improve the interpretation of PDMP data and alert prescribers to potential risk factors.

Consider unintended consequences

PDMPs are important clinical tools; however, it is critical that policymakers consider legislation to avoid unintended consequences that hinder medical decision-making and patient privacy.

Encourage clinical judgment

PDMPs can be used to improve public health. However, patients should not face consequences (such as physicians abruptly stopping an opioid prescription) for being flagged, and physicians should have the ability to prescribe based on an individual's needs. In a qualitative research study, physicians stated that information in the PDMP should inform the prescriber but not be the driver of prescribing decisions; prescribers must also consider individual patient factors and medical history.²⁸ Specifically, physicians expressed concerns that overdose risk scores, a common enhancement to PDMP patient profiles, could increase the likelihood of a patient being denied an opioid prescription despite having a legitimate medical need.²⁹

Ensure appropriate access to the PDMP

PDMPs allow prescribers, pharmacists, researchers, health insurers, medical licensing boards, and others to access the data to monitor controlled substance use by patients, medical practitioner prescribing practices, and population-level drug use trends,³⁰ with the type of access authorized varying by type of user. For example, all states allow law enforcement some degree of PDMP access, though the criteria for access (e.g., search warrant) varies by state:³¹ Twenty-eight states allow law enforcement access to PDMP data based on an active investigation, while 21 states require a search warrant, court order, or subpoena.³² Some privacy proponents fear that law enforcement access may deter patients from seeking medical treatment or make physicians reluctant to prescribe opioids.³³ Research is needed to ascertain the benefits and unintended consequences of providing law enforcement access to patient prescription histories without a warrant, court order, or subpoena.

Conclusion

States have been innovative in their approaches to using PDMP data to inform programs and policies. Analysis of aggregate PDMP data can reveal patterns of overprescribing in specific counties or by physician specialty. In addition, when combined with other datasets, PDMP data may unveil emerging drug trends that can guide harm reduction and prevention efforts. As states continue to improve PDMPs, they should be engaged in ongoing evaluation and consider any unintended consequences prior to implementation.

Resources

The following resources can assist policymakers and PDMP administrators in implementing PDMP practices:

Resource	Description	Web link
<p>Model Prescription Monitoring Program (PMP) Act (Revised May 2015)</p>	<p>This resource from the National Alliance for Model State Drug Laws (NAMSDL) provides policymakers with model PDMP legislation.</p>	<p>https://namsdl.org/wp-content/uploads/Model-Prescription-Monitoring-Program-PMP-Act.pdf</p>
<p>Prescription Drug Monitoring Programs: Evidence-based practices to optimize prescriber use</p>	<p>This report, written by researchers from the Institute for Behavioral Health, Heller School for Social Policy and Management at Brandeis University in collaboration with The Pew Charitable Trusts, describes eight evidence-based practices aimed at increasing prescriber utilization of PDMPs: prescriber use mandates, delegation, unsolicited reports, data timeliness, streamlined enrollment, educational and promotional initiatives, health information technology (IT) integration, and enhanced user interfaces.</p>	<p>https://www.pewtrusts.org/en/research-and-analysis/reports/2016/12/prescription-drug-monitoring-programs</p>
<p>PDMP Maps and Tables</p>	<p>This resource from the Prescription Drug Monitoring Program Training and Technical Assistance Center includes regularly updated information on state adoption of PDMP policies and procedures.</p>	<p>https://www.pdmpassist.org/content/pdmp-maps-and-tables</p>
<p>When Are Prescribers Required to Use Prescription Drug Monitoring Programs? Data show mandates vary across states</p>	<p>Using data from the NAMSDL and the PDMP Training and Technical Assistance Center at Brandeis University, The Pew Charitable Trusts analyzed how states structure the laws and regulations that define when and under what circumstances prescribers are required to check the PDMP. After that assessment, Pew reviewed state laws and regulations to verify these circumstances.</p>	<p>https://www.pewtrusts.org/pdmpmandates</p>
<p>Evidence-Based Policymaking Resource Center: A collection of resources and promising state and county examples</p>	<p>This resource center contains information, including briefs and fact sheets, on each key component of evidence-based policymaking: program assessment, budget development, implementation oversight, outcome monitoring, and targeted evaluation. Analyses of states and counties implementing each component are included.</p>	<p>https://www.pewtrusts.org/en/research-and-analysis/articles/2018/12/18/evidence-based-policymaking-resource-center</p>

Endnotes

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- 13 Department of Legislative Services Office of Policy Analysis, "Sunset Review: Evaluation of the Prescription Drug Monitoring Program" (2018), <https://bha.health.maryland.gov/Documents/Sunset-Review-Evaluation-of-the-PDMP.pdf>.
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