NATIONAL SAFETY COUNCIL

Position/Policy Statement

Prescription Drug Monitoring Programs

Policy/Position:

Prescription drug monitoring programs (PDMPs) are state-managed electronic databases of prescriptions dispensed for controlled substances that are accessible to registered prescribers, dispensers, and authorized users. PDMPs provide valuable insight about a patient's prescription history, including whether the patient has received prescriptions from multiple providers and/or from more than one pharmacy. They are a critical tool in identifying patients at risk for opioid misuse, abuse, or overdose.[1] PDMPs have assisted with identifying prescription opioid abuse. In this way, PDMPs are a critical component of eliminating unintentional death due to prescription drug overdose. The benefits of broader PDMP consultation and resultant information sharing across practice settings can help lead to safer and responsible prescribing, reduce prescribing errors, and lead to improved patient outcomes.[2] The information from PDMPs should be provided for death and serious injury investigations to assist in forensic toxicology examinations. A search warrant might be required. ~~For these reasons, recent opioid prescribing guidelines have recognized the importance of PDMPs. Currently 49 states and the District of Columbia have implemented PDMPs.~~[3]

Comment:

There are fifty four state and territorial PDMPs that are operated by boards or agencies and "no one-size fits-all". [Fraser, 2020] Missouri was the last state in the nation to create a PDMP which occurred in 2021. [Howell, 2017; Parsons, 2021] Fraser (2020) informed:

> "every state legislature and governor ultimately decides the specific administrative agency home for its PDMP, the schedules of drugs covered, the frequency of data collection and periodicity of reporting, who has to enroll in the system, and whether enrollment in the system is mandatory or voluntary.3 State policymaking on these issues, especially the question of voluntary or mandatory prescriber use and timeliness of reporting, may have a profound impact on a PDMP's utility as both a state and national tool for public health surveillance, clinical decision making, and law enforcement."

The development "a federal PDMP with a standard minimal set of variables shared across states could enhance patient care". [Pehrson, 2023]

Mandatory access provisions to PDMPs “were associated with reductions in prescribing behaviors, diversion outcomes, hospital admissions, substance-use disorders, and mortality rates”. [Puac-Polanco, 2020] “PDMPs were associated with sustained reductions in opioid prescribing and overdoses in adolescents and young adults.” [Toce, 2023]

PDMP implementation on opioids in the state of Victoria in Australia found early outcomes of increased initiation of tricyclic antidepressants, pregabalin, and tramadol “providing evidence of possible substitution effects”. [Neilsen, 2023] PDMPs are more effective as a clinical tool when clinicians check them prior to prescribing controlled substances. Accordingly, “Efforts to further increase frequency and ease of use – including advancing a standards-based approach to PDMP and EHR data interoperability – may further increase the benefit of PDMPs.” [Richwine, 2023]

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{To Update: Recommend the rest of the current Position/Policy and entirely of the Background following be superseded by the preceding Comment and References}

~~The National Safety Council (NSC) supports efforts to require universal use of PDMPs by prescribers and dispensers of controlled substances.[1,2]~~

~~NSC supports the work of state PDMP administrators to implement and streamline a core set of capabilities including:~~

- ~~universal use by prescribers and dispensers of controlled substances[3]~~
- ~~data sharing between states[4]~~
- ~~ease of use, including the ability to integrate with electronic health records (EHR)[8] using a streamlined registration log on process which minimizes workflow impediments, and data production processes that are either free of cost or carry a modest charge~~
- ~~clinician delegation and institutional accounts[9] to better integrate PDMPs into clinical workflow and healthcare technology to promote consistent use~~
- ~~capability to provide health care professionals 24/7 access to patient data and reports about their own prescribing patterns~~
- ~~ability to enable professional licensing boards to review the data as necessary~~
- ~~the initiation of proactive reports to authorized users to protect patients at the highest risk and identify inappropriate prescribing trends~~
- ~~real time data collection and dissemination, minimally within 24 hours of dispensing~~
- ~~appropriate training for authorized users~~

~~[1] http://www.sciencedirect.com/science/article/pii/S0376871616310298~~
~~[2] https://www.shatterproof.org/sites/default/files/2016-11/PDMP-white-paper-2016_0.pdf~~
~~[3] https://www.cdc.gov/drugoverdose/pdmp/index.html~~
~~[4] CDC published this document regarding state sharing of PDMP data https://www.cdc.gov/drugoverdose/pdf/pehriie_report-a.pdf~~

- consistent standards to protect patient privacy
- Adequate and sustainable funding of PDMPs to allow states to implement these best practice recommendations

Background:

Overdose deaths involving prescription opioids have quadrupled since 1999, and so have sales of these prescription drugs.[5],[6] From 1999 to 2015, more than 183,000 people have died in the U.S. from overdoses related to prescription opioids.[7] Four out of five new heroin users began their abuse with prescription opioids.[8] NSC promotes judicious prescribing of opioid pain medications as a method of limiting opportunities for opioid misuse and diversion[9], including a requirement for universal PDMP use.

PDMPs are a critical component of preventing prescription drug overdose, misuse, and abuse and saving lives. Research published in 2015 found that implementing a mandatory PDMP use requirement was correlated with reduced frequencies and quantities of prescriptions for opioid analgesics, while moderately increasing prescriptions for non-opioid analgesics such as ibuprofen and acetaminophen.[10] Furthermore, a recently published study from the CDC found that a policy mandating PDMP usage was correlated with significantly reduced overall opioid prescriptions as well as opioid overdose death rates.[11] Looking at historical data from 20062013, the authors found that mandated provider review of a PDMP in conjunction with pain clinic regulation correlated with decreased opioid prescription rates by 10.6%, a reduction equal to 80.1 morphine milligram equivalents per state resident. This decrease in the amount of opioids prescribed corresponded to a parallel reduction in opioid overdose death rates of -1.2 per 100,000 residents.

Further evidence indicates that prescribers change their prescribing habits when they use a PDMP. A 2006 federally funded study found that PDMPs—especially ones that issue reports proactively—modify prescriber behavior in a way that reduces the per capita supply of prescription pain relievers and stimulants, which in turn reduces the likelihood of abuse.[12] In the same survey, 18% of respondents said they used the state PDMP "occasionally" and 18% said they are "somewhat familiar" with the PDMP but have not used it. Seven percent said they are not at all familiar, and four percent said their state does not have a PDMP.[13]

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[5] https://www.cdc.gov/drugoverdose/data/statedeaths.html

[6] https://www.cdc.gov/drugoverdose/data/prescribing.html

[7] CDC. Wide-ranging online data for epidemiologic research (WONDER). Atlanta, GA: CDC, National Center for Health Statistics; 2016. Available at http://wonder.cdc.gov.

[8] Jones CM. Heroin use and heroin use risk behaviors among nonmedical users of prescription opioid pain relievers - United States, 2002-2004 and 2008-2010. Drug Alcohol Depend. 2013 Sep 1;132(1-2):95-100. doi:10.1016/j.drugalcdep.2013.01.007. Epub 2013 Feb 12.

[9] Diversion is the transfer of a legally controlled substance from the individual for whom it was prescribed to another person for any illicit use, with or without their knowledge.

[10] Rasubala L, Pernapati L, Velasquez X, Burk J, RenY. Impact of a Mandatory Prescription Drug Monitoring Program on Prescription of Opioid Analgesics by Dentists. 2015. PLoS ONE 10(8): e0135957. doi:10.1371/journal.pone.013595

[11] http://content.healthaffairs.org/content/35/10/1876.full?ijkey=jkextODXDUxFA&keytype=ref&siteid=healthaff

[12] http://www.simeoneassociates.com/simeone3.pdf

[13] This is not possible with Missouri as the only state that does not have a PDMP, and only one Missouri doctor responded to this question stating the state does not have a PDMP.

Increasing utilization. State action remains necessary to ensure widespread adoption and utilization of PDMPs by prescribers and pharmacists. Funding is available to support states in the integration of PDMPs into health systems and in making PDMPs easier for prescribers to use. These programs include the Bureau of Justice Assistance (BJA) "Harold Rogers Prescription Drug Monitoring Program,"[14] the Centers for Disease Control and Prevention "Prescription Drug Overdose: Prevention for States Program and Data-Driven Prevention Initiative"[15] and Substance Abuse and Mental Health Services Administration (SAMHSA) "State Targeted Response to the Opioid Crisis Grants."[16] The 21st Century Cures Act (P.L. 114-255) provides nearly a billion dollars over two years to support SAMHSA's state targeted response program, including improving state PDMPs.[17]

There are a number of additional features of PDMPs which have been shown to increase prescriber utilization. Timely data collection and dissemination, the ability to appoint delegates, the establishment of institutional accounts, and integration of PDMP data into existing health information exchange and electronic health records are each associated with increased usage. Two of the most effective strategies when implemented are mandatory enrollment and utilization requirements of all prescribers. Twenty-eight states have passed statutes or enacted regulations requiring prescribers and pharmacists to register with the PDMP which has led to more widespread adoption.[18]

Several states have increased utilization of the PDMP by requiring prescribers to access the PDMP upon initial controlled substance prescription and to conduct a periodic check when treatment continues.[19]

Improved outcomes. After implementing policies that require registering with or checking the PDMP, the Kentucky, New York and Tennessee PDMPs saw dramatic increases in prescriber registrations and information requests. In Kentucky, providers must review PDMP data prior to issuing a patient's first opioid prescription and at least every three months thereafter for continued therapy and new opioid prescriptions, with some exceptions. This requirement went into effect in July 2012. A 2015 self-evaluation found that the mean number of prescribers' requests to the PDMP increased by 650 percent annually compared to the period prior to the law's effective date. Prior to the mandate, report requests had been increasing by approximately 85,000 reports annually, a trend which, if continued, would take approximately 38 years to reach the level of adoption achieved within 3 months of passage of the requirement.[20,21,22]

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[14] https://www.bja.gov/ProgramDetails.aspx?Program_ID=72

[15] https://www.cdc.gov/drugoverdose/states/index.html

[16] https://www.samhsa.gov/grants/grant-announcements/ti-17-014

[17] SAMHSA to award nearly $1 billion in new grants to address the nation's opioid crisis accessed from https://www.samhsa.gov/newsroom/press-announcements/201612141015

[18] PDMP Prescriber Use Mandates: Characteristics, Current Status and Outcomes in Selected States. Prescription Drug Monitoring Program Center of Excellence at Brandeis University, May 2016. Accessed from http://www.pdmpassist.org/pdf/COE_documents/Add_to_TTAC/COE%20briefing%20on%20mandates%203rd%20revision.pdf

[19] As of May 2017, states included but are not limited to Alaska, Arizona, California, Connecticut, Kentucky, Maine, Maryland, Massachusetts, Nevada, New Hampshire, New Jersey, New Mexico, New York, Ohio, Oklahoma, Pennsylvania, Rhode Island, Tennessee, Virginia, West Virginia, and Wisconsin

[20] Cabinet for Health and Family Services. KASPER Quarterly Trend Reports — 4th Quarter 2012. Frankfort, KY: Office of Inspector General. Available at: http://www.chfs.ky.gov/os/oig/kaspertrendreports

[21] Cabinet for Health and Family Services. KASPER Quarterly Trend Reports — 4th Quarter 2013. Frankfort, KY: Office of Inspector General. Available at: http://www.chfs.ky.gov/os/oig/kaspertrendreports

[22] PDMP Center of Excellence at Brandeis University. KASPER — Prescriber Requested Report — 2005 to 2013. Emailed from Eadie, J to Ingram V, Holt, S, and Hopkins, S. 26 April 2015.

Patients with multiple providers, as measured by multiple prescribers and/or multiple pharmacies showing up on a given patient's PDMP report, decreased by over 50% after implementation of this Kentucky law. Controlled substance prescriptions decreased by 8.5 percent[23] and doses dispensed declined for hydrocodone (10.3%), oxycodone (11.6%) and oxymorphone (35%). Treatment utilization, or the number of people taking advantage of treatment, was also positively impacted, with prescriptions for buprenorphine, an opioid agonist-antagonist used in treating opioid dependence--up nearly 90 percent. Between 2011-2013, overdose hospitalizations due to prescription opioids declined by 26 percent, emergency department visits related to prescription opioids declined by 15 percent, and prescription opioid deaths declined by 25 percent, which was the first decline in 10 years.[24,25,31]

Kentucky is not alone in seeing measurable improvement after implementing mandatory use of its PDMP. After requiring providers to use the PDMP, New York, Tennessee and Ohio experienced significant declines in PDMP-identified patients that were seeing multiple prescribers to obtain more of the same drugs (i.e., doctor shopping).[26, 27] Woody McMillin of the Tennessee Department of Health stated, "We have seen positive changes, including a reduction in the morphine milligram equivalents dispensed, a reduction in the number of doctor and pharmacy shoppers going to multiple outlets to obtain drugs, an increase in queries to the [PDMP] by prescribers and extenders, and a change in practices, with some 41.4% less likely to prescribe certain controlled substances."[28]

Some states recognized cost savings attributable to use of the PDMP. A January 2013 report by the California Workers' Compensation Institute estimated savings from using the state PDMP at $57.2 million, which is a return of $15.50 healthcare dollar for every $1 spent on PDMP.[29]
Underutilization. Unfortunately, PDMPs continue to be underutilized by most prescribers. A 2015 study of primary care prescribers found that while a majority reported having obtained data from their PDMP at some point in time, prescribers consulted PDMP data in fewer than one-quarter of instances when they prescribed opioids to patients.[30] In a recent review of 2015

[23] From August 2011 to July 2012, there were 7.39 million doses of controlled substances. From August 2012 to July 2013, there were 6.67 million doses.
[24] Ingram V, Kentucky Executive Director, Office of Drug Control Policy. Email correspondence to Eadie, JL, PDMP Center of Excellence at B. 6 March 2015 and 12 March 2015.
[25] Ingram V, Kentucky Executive Director, Office of Drug Control Policy. Prescription Drug Monitoring Programs and KASPER. Presentation to Community Anti-Drug Coalitions of America National Leadership Forum. 5 February 2015.
[31] PDMP Center of Excellence. Mandating PDMP participation by medical providers: current status and experience in selected states, February, 2014. Accessed from: www.pdmpexcellence.org/sites/all/pdfs/COE%20briefing%20on%20mandates%20revised_a.pdf
[26] Ibid
[27] "Briefing on PDMP Effectiveness," Prescription Drug Monitoring Program Center of Excellence at Brandeis University, September 2014.
[28] http://managedhealthcareexecutive.modernmedicine.com/managed-healthcare-executive/news/do-prescriptiondrug-monitoring-programs-work?page=0,1.
[29] Swedlow, A., and Ireland, J., Estimated savings from enhanced opioid management controls through 3rd party payor access to the Controlled Substance Utilization Review and Evaluation System (CURES). California's Workers' Compensation Institute, January, 2013. Report available at http://www.cwci.org/research.html
[30] L. Rutkow, L. Turner, E. Lucas, C. Hwang, G. C. Alexander. Most Primary Care Physicians Are Aware Of Prescription Drug Monitoring Programs, But Many Find The Data Difficult To Access. Health Affairs, 2015; 34 (3): 484 DOI: 10.1377/hlthaff.2014.1085

prescribing data in sample of states where participation in the PDMP is voluntary, prescribers checked the patient history in the PDMP only 14% of the time before prescribing an opioid.[31]

Prescriber and dispenser PDMP concerns include fears about potential liability and penalties associated with using and/or failing to use the PDMP and about law enforcement access to patient information.[32] This includes concerns regarding appropriate prescribing, and whether prescribers could be held negligent if it could be argued that the PDMP data could have raised concerns, and thus modified the prescribing behavior.[33] Similarly, states also require law enforcement and federal agencies such as the Drug Enforcement Agency to obtain a court order or have an on-going investigation prior to the release of patient prescription information.[34]

Inefficient user interfaces, timely log on procedures and confusing reports are also frequently cited objections to PDMP use.[35] However, providing the PDMP data as a part of the patient's health information exchange (HIE) based community health record was considered especially beneficial as it enabled the review of PDMP data in the broadest patient context.[36] Washington's PDMP developed standards making it easier for hospitals and physician health systems to access PDMP data through the statewide HIE.[37] However, in some states, with limited funding for their PDMP, integration efforts can be costly for both the PDMP program and medical facility.[38] Appropriate funding is vital for full use.

This position statement reflects the opinions of the National Safety Council but not necessarily those of each member organization.

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[31] Rasubala, Linda et al., "Impact of a Mandatory Prescription Drug Monitoring Program on Prescription of Opioid Analgesics by Dentists," August 14, 2015.
[32] https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4465450/
[33] Ibid
[34] http://www.pharmacytimes.com/publications/issue/2015/june2015/does-the-dea-need-a-warrant-to-get-pdmpdatabase-information
[35] https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4465450/
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[38] https://www.healthit.gov/sites/default/files/fdasia1141report_final.pdf