Chapter 6: Prescription Drug Monitoring Programs (PDMPs)

PDMP History and Current Footprint - From the First PDMP to Today

Prescription Drug Monitoring Programs (PDMPs) are not new – indeed, their history dates to about a century ago when New York became the first state to require reporting. That short-lived program and subsequent state PDMPs throughout most of the 19th century applied strictly to Class II drugs, typically cocaine, morphine and, until banned in 1924, heroin. Data collection was managed via serialized, multi-copy, state-issued prescription forms, one copy of which generally had to be sent to the state within 30 days.

In 1990, when Oklahoma became the first state to require electronic submission, use of paper forms began to disappear and as of early 2019, only California and Texas required serialized paper forms. New York has virtually eliminated their paper form requirement by mandating the e-prescribing of all drugs.

Recognizing the potential value of the collected data, the federal government began to make funding available through grants to states to establish, implement or enhance PDMPs. With this motivation, 27 states established new PDMPs in the first decade of the 21st century and by 2015, all states except Missouri, which has a county-based PDMP that serves more than 75 percent of the population, had established PDMPs. In early 2019, there were 54 PDMPs in the U.S., accounting for 49 states, the county-based Missouri program, and programs covering Washington D.C., Puerto Rico, Guam and the Department of Defense Military Treatment Facilities.

PDMPs were birthed from a law enforcement perspective – so much so that in some states, clinicians were originally denied access. Because Substance Use Disorder (SUD) was considered a character flaw and not a recognized disease at that time, the focus of the reporting requirements was to create a policing and enforcement tool, not a clinical tool. The right of states to implement PDMPs for this purpose was challenged in 1977 in New York and that right was upheld by the U.S. Supreme Court.

Fortunately, that paradigm has slowly changed. Today, SUD is a well-recognized disease with broadening support structures to help manage it. In that vein, the purpose of PDMPs has also been altered. Their expressed intents now encompass a broader set of goals;

1. To ensure patient access to appropriate pharmaceutical care
2. To improve prescribing and dispensing decisions by providing a clinical tool to assess the risk of controlled substance drug therapy for patients
3. To deter diversion, misuse and abuse

Over time, the quality and scope of the data collected by PDMPs has evolved and improved as well. In 1990, Oklahoma became the first state to require the electronic submission of prescription records by pharmacies. As the PDMPs migrated to electronic processes, they also consistently increased the frequency of reporting; currently the great majority require record submission daily or more often.

Likewise, following the addition of all Drug Enforcement Agency (DEA) CIII – CV records to the reporting requirement by Nevada in 1995, the scope of the reporting requirements broadened across the nation. Today, all PDMPs require the submission of CII – CIV drugs and many also include CV drugs, state scheduled drugs or "drugs of concern."

PDMPs also all generally report the same information to prescribers and pharmacists. In terms of prescription data, PDMP reports include, at a minimum, fill date, drug, quantity, days' supply, prescriber, pharmacy, number of refills, morphine milligram equivalents (MME), MME/day and payment type.

PDMPs are amid another data revolution as well. As the volume of opioid prescriptions falls and the death rate continues to rise, PDMPs are adding additional data to help prescribers and pharmacists understand patient risk. PDMPs such as Utah's and Wisconsin's are making overdose or drug violation history available to prescribers that query their PDMP data, and many other states are pursuing similar initiatives. The inclusion of non-prescription data is in its infancy but holds immense potential for better clinician assessment of the patient's true risk.

As mentioned above, although PDMPs were, from inception, contemplated and constructed for the benefit of law enforcement, that paradigm has undergone a titanic shift in the last two decades. Where law enforcement may have been not just the primary accessor to PDMP records, but even the sole accessor, a multitude of additional roles have now been given authorized access. Depending on the state PDMP, access is now available for clinicians, state board of pharmacy employees, drug courts, medical examiners, drug abuse counselors, Medicaid administrators, etc. And contrary to the original intent, access for law enforcement is typically now restricted to bona fide, active criminal cases. "Fishing expeditions" are no longer authorized.

In terms of clinician roles, PDMP laws are highly specific regarding access and often vary by state. Typical roles that are allowed access to PDMP platforms include physicians, physician's assistants, nurse practitioners, and pharmacists. Some states, however, prohibit access by physician's assistants. When accessing the PDMP portal, most states also allow delegate access. Generally, a delegate is defined as an agent authorized by a physician to assist in executing patient PDMP searches to reduce the burden on the physician. An example of a delegate would be a nurse in a physician's practice who request PDMP reports for the day's scheduled patients each morning.

The shift in approach can also be seen in the agency through which the programs are managed. Whereas most programs were originally managed by a law enforcement agency, PDMPs are now managed by any of the following entities: the state Bureau of Narcotic Enforcement, a Health Department, the Attorney General's Office or the State Board of Pharmacy. Importantly, only three states remain as of early 2019 where the PDMP is managed by a law enforcement agency.

The evolution of PDMPs

Despite the tremendous potential value of PDMPs, until recent years the programs were hampered by several deficiencies and difficulties. PDMPs have evolved, however, and several key innovations have boosted their utilization and effectiveness.

Breaking Down the Siloes

As state-based programs formed early this century, they were created without the ability to share data. If a patient filled a controlled substance prescription in another state, that dispensation would not be reported to the patient's home state PDMP, potentially providing clinicians only a partial view of a patient's controlled substance prescription history.

For the most part, this dynamic no longer exists today. Interstate data sharing is now facilitated through PMP InterConnect, which connects 49 of the 54 PDMPs, or RxCheck, which connects four PDMPs. These systems enable clinicians to view multistate data in every PDMP report. Due to various factors, not every state shares with every state, but almost all states share with all of their border states.

Florida had a law prohibiting data sharing until July of 2018 but is now rapidly adding states with which they share, and as of January of 2019 shared with Alabama, Georgia, Mississippi, South Carolina and Ohio. California, too, had a law prohibiting sharing with other states. That changed in January of 2019, and they are expected to begin sharing in June of 2020 once they have developed their supporting regulations.

Revolutionizing Efficiency of Access

PDMPs were also formed with the ability to expose data and information to users through a web portal only. Using this portal requires clinicians to exit their EHR or pharmacy management system, log in to the PDMP portal with a user name and password, and perform a manual patient search by entering patient demographic data, such as first name, last name, date of birth and zip code. Studies have shown that using the PDMP in this manner on average consumes over four minutes of a clinician's valuable time.

States responded to the onerous nature of this process by allowing clinicians to use delegates to access PDMP reports in advance of the patient visit (e.g., each morning for the patients with scheduled visits that day). Nevertheless, this access method led to very low utilization rates of the PDMP by clinicians, as low as 10 percent in many cases.

States again responded to this low utilization by passing laws mandating that prescribers check the PDMP before prescribing a controlled substance. Over 40 states now have such laws (the specifics from one state to another can differ). Mandatory use laws have indeed achieved their purpose – increasing utilization of the PDMP – but at the expense of clinician burden.

The great news on this front, however, is that in recent years the industry has made significant strides in enabling the integration of PDMPs into electronic health records, pharmacy management systems and health information exchanges. While the specifics of various approaches can differ, these technologies enable clinicians to access a patient's PDMP report from within the EHR in one click.

Depending on the state, over 100 EHRs may currently have this capability natively enabled in their systems, ask your vendor about what PDMP integration is available and what is planned.

Becoming More than a Prescription Registry

In the early years of PDMPs, they primarily served as prescription registries. In recent years, however, the programs have evolved far beyond this paradigm, to the point where "registry" is certainly an inaccurate description and "prescription drug" is even rapidly becoming a misnomer.

As the prescription drug problem continued to worsen over the years, the federal government has dramatically increased funding to states for their PDMP. As a result, PDMPs added, and are continuing to add functionality to provide clinicians with as much assistance as possible in interpreting the data and making decisions. Initially these features included state-mandated clinical alerts sent to clinicians identifying patients who were exhibiting particularly risky prescription patterns, such as number of pharmacies in a

defined time period, number of prescribers in a defined time period, and MME/day. These features then evolved, in states like Wisconsin and Michigan, to include visualizations of the data and more advanced representations of risk, such as predictive analytics and patient risk scores.

Additionally, the opioid crisis has resulted in funding for many research projects that have identified risks that are not necessarily reflected in the typical prescription data. Increased risks are strongly associated with numerous other factors, such as overdose history, incarceration and toxicology results. In an attempt to present an increasing number of risk factors to clinicians, multiple states now make these additional data sets available in the PDMP.

And finally, states are beginning to add functionality to the PDMP to aid clinicians in addressing risk and intervening with patients. They can include messaging capabilities, treatment locators and educational materials.

Importantly, most states require that when EHRs integrate "PDMP data" or "the PDMP," they integrate the full report and functionality, including all information, analytics, visualizations and capabilities.

Alternatives for PDMP Access

Overview

Due to varying state requirements and laws, integration approaches can differ, even from the same vendor. These requirements are in support of and for the enforcement of the intended uses of the data, which are generally far more specific than other healthcare data privacy rules such as Health Insurance Portability and Accountability Act (HIPAA).

In a few states, the raw data itself is allowed to flow into the electronic health record system. In other states, the data itself is not allowed to flow into the system but the system can store a "view" of the report, such as a PDF. And in other states, systems are only allowed to display the report view, which then disappears. Each scenario has its advantages, but all three are significant improvements over the portal experience.

Additionally, in most situations and unlike the portal, delegates are not allowed access to integrated PDMP reports. This limitation leads to enhanced security, and because the process of accessing and viewing the report is so efficient, delegates are not necessary.

Nationwide, there are several options available for integration of PDMP reports into EHRs. The details of these options vary, and the availability of each option in each state varies as well.

National Association of Boards of Pharmacy/Appriss Health (PMP Gateway)

As referenced above, PMP InterConnect is a national data-sharing hub that connects 49 of the 54 PDMPs to enable the flow of multistate data to clinicians. PMP Gateway is the integration technology and service for InterConnect, enabling the flow of multistate PDMP reports into EHRs and pharmacy systems.

PMP Gateway is natively integrated into over 100 EHRs and almost every major pharmacy system, letting health systems and physician practices enable the integration with minimal effort. As of early 2019, it was approved for use, and in use, in 38 states, and 14 states fully fund it for every prescriber in the state. Across those 38 states, it is used by 300,000 clinicians and delivers almost 25 million PDMP reports into clinical workflow per month.

Operationally, PMP Gateway automatically launches a multistate patient PDMP request upon an event predetermined by the health system or practice, such as upon patient registration or upon chart opening. The report is retrieved and available for viewing, very rapidly appearing when a "View Report" button is pressed. The report is presented in html format, enabling Appriss to automatically ensure that the integration is fully compliant with the individual laws of each state whose data is presented. This ensures that multistate data is never inhibited by an implementation that may violate some states' requirements. Additionally, using this methodology, Appriss can update the reports as state requirements change so no configuration change is required on the part of the health system or EHR vendor.

Additionally, PMP Gateway can integrate the Appriss NarxCare substance use disorder platform, which is the default integration in some states and optional in others. NarxCare features predictive analytics, visualizations and clinical tools to equip health systems with greater capabilities and more fully integrate with an opioid stewardship strategy. The predictive analytics and visualizations enable clinicians to more quickly evaluate risk, and the clinical tools enable clinicians to more effectively intervene with patients. Additionally, the scores are returned to the EHR as discrete data elements, and most health systems choose to include them directly in the patient's chart. This enables clinicians to view the scores for every patient and creates awareness for which patients they want to view the full PDMP report.

PDMP Integration

Most states allow PDMP integration within the EHR, and most EHRs support this integration. Each state determines not only how the PDMP will be established, but also the methodology for how EHRs will integrate with it. There are significant differences between the states on their approach. The first step in the operationalization of PDMP integration with the EHR is to understand how your state has chosen to support this integration.

Making PDMP information available within the EHR is usually accomplished with a National Council for Prescription Drug Programs (NCPDP) interface, or via Single Sign On to a web portal, or both. Again, state regulations will determine which method(s) are supported. Using an NCPDP interface is often advantageous because such technology allows the EHR to consume PDMP data discretely. Such integration allows the EHR to provide decision support and risk scoring. Additionally, if the state allows, the NCPDP query of PDMP can be performed automatically and prospectively, so that the data is readily available for clinician reviewing. Using the Single Sign On (SSO) approach is self-explanatory. The user will click a button in the workflow, and the SSO integration will send user credentials and patient lookup information from the EHR to the web portal that is providing access to PDMP data, which is then opened often as a window within the EHR. While this SSO method is still much more efficient than no integration, the PDMP data is not brought in to the EHR discretely, reducing the EHR's ability to provide decision support with the information.

Sometimes the state will develop and maintain its own PDMP database, but this is rare. Kentucky is an example of this approach. The more common approach is the state will select a PDMP vendor to assist them in managing the integration of the PDMP with EHRs. PDMP vendors include Appriss, NIC and LogiCoy. Appriss, mentioned previously, is by far the most commonly used vendor, currently working with the majority of states. LogiCoy is the PDMP vendor for Illinois, and NIC has worked with Wisconsin and Chesapeake Regional Information System for our Patients (CRISP), a health information exchange serving Maryland, Washington, D.C., and West Virginia.

Interstate sharing of data between each state PDMP database is usually accomplished through one of two mechanisms: PMP Interconnect and/or RxCheck. PMP Interconnect is owned by the National Association of Boards of Pharmacy, and Appriss is their technology solution provider. Appriss offers an API to PMP Interconnect called PMP Gateway. Over 45 states share data via PMP interconnect. In order to participate, the state must sign a memorandum of understanding (MOU) that ensures compliance with multistate requirements but also prevents healthcare systems from consuming data discretely into their EHR. The other interstate sharing solution is RxCheck.

RxCheck is funded by grant funds to provide a no-cost solution to participating states and was developed by the U.S. Bureau of Justice Assistance.

Pros of PMP Gateway

- Delivers multistate data from 49 PDMPs (as of this writing New York was not integrated)
- Proven solution in use by 300,000 clinicians, delivering 25 million reports per month
- Natively integrated with over 100 EHR systems, providing for easy activation by health systems and practices
- Account management and 24/7 customer support included
- Automatically configures and enforces all state rules and regulations, assuring health systems that they remain in compliance
- Automatically captures PDMP access audit trail, providing evidence of compliance with mandatory use laws
- Fully compliant with all mandatory use laws
- Vetted by 38 states and independent auditors for security, privacy and HIPAA compliance
- Accommodates for continuous changes in state PDMP laws, statutes and policy enabling a consistent integration approach on an enterprise level. A consistent approach is enabled in the 38 states in which it is live, and Appriss manages all state-required changes on the back end, preventing health systems or vendors from having to make configuration changes as state requirements change.

Cons of PMP Gateway

- Does not deliver raw data into EHR systems in order to ensure compliance with multistate data requirements

Pricing

- 14 states fully fund the PMP Gateway solution, providing it at no ongoing cost to every prescriber in the state. Depending on the EHR vendor, the vendor may charge a nominal setup fee to establish the connection.
- In states that don't fund the solution, EHR vendors/Appriss may charge a fee per prescriber per year for access to the system. Pricing may vary depending on the vendor and whether the health system elects to receive a "basic" PDMP report or the NarxCare solution. Volume pricing is usually available for large numbers of prescribers.

Contact your EHR vendor for specific pricing information.