Notes from the Field

NF 4.1 Using PDMPs to Improve Medical Care: Washington State’s Data Sharing Initiative with Medicaid and Workers’ Compensation

April 2013
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**Overview**

To help ensure proper medical care, Medicaid and workers’ compensation programs, as well as other third party payers, often use claims data to monitor their patients’ prescription drug use. However, claims data only include payments for prescriptions from medical providers within an agency’s network. Data from prescription drug monitoring programs (PDMPs) include virtually all prescriptions dispensed to a patient, including those paid for by cash, so use of PDMP data by third party payers allows more complete patient monitoring. In its innovative data sharing initiative, Washington State’s PDMP provides data to Medicaid and workers’ compensation programs via two methods, individual patient queries and bulk data transfer. Such access to PDMP data has allowed both programs to more quickly and reliably identify patients who may be at risk of prescription drug abuse and need appropriate changes in their medical care. This in turn may contribute to improved health outcomes and reduced medical and liability costs. Washington’s data sharing initiative shows promise as a model for providing PDMP data to third party payers, whether public or private, to help mitigate the prescription drug abuse epidemic.

**Background**

To help limit prescription drug abuse and diversion, Medicaid programs often monitor claims data on controlled substances dispensed to their clients, checking for multiple or overlapping prescriptions that might not be medically warranted. Clients found to be misusing or diverting prescription drugs are sometimes placed in so-called “lock-in” programs, which restrict them to a single prescriber and a single pharmacy when obtaining controlled substances. However, since Medicaid claims data only reflect the activity of those providers paid via Medicaid, they don’t capture prescriptions to clients that may have been prescribed by non-Medicaid providers, or that may have been paid for in cash or by other third party payers. This limits the ability of Medicaid programs to monitor the prescription behavior of its clients and therefore the effectiveness of lock-in programs. Clients may be obtaining prescriptions not recorded in the system, potentially compromising their medical treatment or posing a risk to the wider community via diversion. This same limitation applies to any health care system or organization, public or private, which fails to capture in its claims data the full range of prescribers and methods of payment available to its enrollees.

Because state PDMPs collect controlled substance prescription data from virtually all dispensers, and since they often record method of payment, they capture prescription information sometimes missed by third party payers. PDMPs are therefore in a position to help Medicaid and other health care organizations do a better job of monitoring their patients’ prescriptions, helping to ensure good medical care while reducing abuse and diversion of
controlled substances and their associated costs. An apt example is the Washington State PDMP, which collaborates with the state’s Medicaid and workers’ compensation programs to provide access to prescription history data, including provision of bulk data files matched on patient lists from both agencies (a first for a PDMP). This report will describe the regulatory framework enabling the PDMP to provide data, the data sharing mechanisms, the uses of data, and the outcomes of the improved monitoring such data make possible.

Planning the collaboration

Washington’s data sharing initiative was planned from the inception of its PDMP, the result of a decision by its host agency, the Washington State Department of Health (WA DOH), to make prescription information proactively available to other state agencies. The PDMP’s original enabling legislation, authorized in 2007, specifies that the program may provide data to “authorized practitioners of the Department of Social and Health Services and the Health Care Authority regarding Medicaid program recipients” and to “the director or director’s designee within the Department of Labor and Industries regarding workers’ compensation claimants.” Such unambiguous language headed off any disagreements about the regulatory authority of WA DOH to share data with the state’s Medicaid and workers’ compensation programs. Many states do not provide such latitude for PDMPs in their enabling legislation or implementing regulations.

During the planning phase of the PDMP in 2011, the PDMP administrator met with staff from the Washington State Health Care Authority (HCA, which administers the state’s Medicaid program) and the Washington State Department of Labor and Industries (L&I, which administers the state’s publicly funded workers’ compensation program) to plan how data would be provided to these agencies. It was determined that two approaches would be used: staff at each agency would be able to request reports on individual patients, and each agency would be able to receive a bulk data transfer of PDMP records matching their patients. After implementation of the system, the PDMP administrator trained staff in the policies and procedures for downloading and interpreting PDMP data. They were also enrolled as authorized users (approved by their agency’s medical director) with access to the PDMP online database via secure login and password. All HCA and L&I staff with access to the database are licensed health care providers (e.g., doctors, pharmacists and nurses), whose primary role is to coordinate and improve medical treatment for patients served by their respective agencies.

How data are shared

As noted above, there are two means by which HCA and L&I access PDMP data. The first, implemented in the fall of 2011, is via individual queries to the database: the user inputs a patient’s name and date of birth and downloads his or her prescription history. Such queries can be triggered for various reasons, including suspicions that a patient might be involved in prescription drug abuse or diversion. The second means of access is via bulk transfer of data. Here, in the case of L&I, the agency sends the PDMP’s IT vendor a file of all individuals with active workers’ compensation claims. The vendor then produces a file for L&I of prescription
history records matched on identifying information common to both data sets; e.g., name, address and date of birth. Similarly, each month HCA sends the vendor a list of all Medicaid eligible clients (about 1.2 million clients per month) and the vendor matches those clients with PDMP data and returns the list with prescription histories attached. As described below, these two different means of access – individual query and bulk transfer – support different types of monitoring functions for both agencies.

**How data are used**

The overall purpose of viewing PDMP data by HCA and L&I is to obtain a more complete record of controlled substances dispensed to their patients, information critical to assessing compliance with lock-in programs, and for ensuring safe and effective medical care. Prescription data also aid in detecting aberrant, sometimes fraudulent, prescribing on the part of some medical providers, as well as dispensing by pharmacies that may not be in compliance with agency regulations.

**Workers’ Compensation.** In the L&I workers’ compensation program, PDMP data are routinely reviewed for opioid prescriptions when assessing an injured worker’s medical care (due to resource constraints, L&I primarily monitors opioid use). Such a review can be triggered if a question arises about a course of treatment or the status of a claimant; for example, case managers may contact medical staff if they suspect a worker might be using opioids non-medically. Staff will review that individual’s prescription history, including a query to the PDMP database. Should the query indicate that opioid prescriptions were obtained from multiple providers, staff will notify the case manager and phone the worker’s providers, both in and outside the workers’ compensation network, to alert them concerning these prescriptions. In making these contacts, staff uses PDMP data, in conjunction with medical records and lab reports, to better coordinate and improve an injured worker’s care. Providers are often unaware of duplicate prescriptions and of the PDMP and its function.

Prescription history reports are also reviewed to determine if significant quantities of controlled substances, opioids in particular, were dispensed in the two months leading up to an injury. Prior use of pain medications might complicate their use for treating an injury, and might indicate pre-existing involvement with prescription drugs that would affect the prognosis for recovery and return to work.¹ Figure 1 (page 10) shows that since the PDMP database became

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¹ Greater opioid use seems associated with adverse outcomes for injured workers. In “Early Opioid Prescription and Subsequent Disability Among Workers with Back Injuries” (Spine, 2008,15;33(2):199-204, [http://www.ncbi.nlm.nih.gov/pubmed/18197107](http://www.ncbi.nlm.nih.gov/pubmed/18197107)), Franklin et al. conclude that “prescription of opioids for more than seven days for workers with acute back injuries is a risk factor for long-term disability.” Alex Swedlow et al., in “Pain Management and the Use of Opioids in the Treatment of Back Conditions in the California Workers’ Compensation System” (California Workers’ Compensation Institute, 2008), state in their foreword that claims “involving a greater number of opioid prescriptions or morphine equivalent milligrams were associated with higher costs and longer temporary disability durations.” See also “Many injured workers remain on opioids, study finds,” [Milwaukee Wisconsin Journal Sentinel](http://www.jsonline.com/features/health/many-injured-workers-remain-on-opioids-study-finds-km72v1g-172331511.html).
available to L&I in October 2011, the number of monthly individual queries increased steadily, reaching 680 in June 2012.

The bulk transfer of PDMP data to L&I enables it to conduct monthly analyses to systematically identify injured workers that might be at risk for prescription drug misuse or abuse, including those that have been prescribed opioids in advance of an injury. As noted above, PDMP data are essential to such analyses since they include all out-patient prescriptions dispensed to an injured worker, not just those prescribed by L&I providers.

One such analysis supports L&I’s “Early opioid intervention” pilot program, which seeks to coordinate treatment of injured workers who received chronic opioid therapy before the injury. Workers with relatively new injury claims (i.e., between 15 and 45 days in the system), are flagged in PDMP data if they have been dispensed at least one opioid prescription within 60 days prior to the injury. Approximately 300-400 such individuals have been identified each month, representing about 3-4% of all new claims. These injured workers are then prioritized for potential intervention based on four criteria: 1) chronicity of opioid use, where chronicity is defined as having received three or more opioid prescriptions in the 90 days preceding the injury; 2) high dose, that is, being prescribed more than 120 morphine milligram equivalents (MME) per day; 3) use of other controlled substances, for instance benzodiazepines; and 4) receiving compensation for lost wages. Meeting any of the first three criteria, as determined by PDMP data, is a possible indicator (needing confirmation, see note 3) of substance abuse and/or risk of overdose, while the fourth indicates a financial liability for L&I. Each criterion is assigned one point, should it be met, in calculating a total priority score (0=lowest priority, 4=highest). Patients with the highest scores then become first in line for a possible intervention, which might include contacting medical providers listed in PDMP data regarding coordination of care, and meetings with case managers to develop a medical treatment plan.

**Medicaid.** As used by HCA, individual queries of PDMP data help to monitor the compliance of clients in the Patient Review and Coordination (PRC) program, Washington’s Medicaid lock-in program. All PRC clients are subject to review after two years in the program, and if they pass review, are released from lock-in. PDMP prescription history reports are now standard elements of reviews since they include cash payments and dispensed controlled substances prescribed by any non-Medicaid providers. These more complete reviews have revealed medically unwarranted controlled substance dispensing for some clients, resulting in their retention in lock-in. Individual queries of PDMP data are also conducted to follow up on indications of possible questionable activity, such as calls from pharmacies about suspected prescription forgery, or harassment of pharmacy staff. Data on HCA individual queries to the PDMP are shown in Figure 2 on page 10.

Since PDMP reports list all providers prescribing and dispensing to a client, they sometimes result in the identification of questionable activity (witting or unwitting) on the part of providers: they may be making controlled substances available which are medically unwarranted. By tracking method of payment, PDMP data can identify pharmacies that accept cash payments for prescriptions duplicating those paid for by Medicaid; such pharmacies are out of compliance with Washington Medicaid program requirements. Similarly, prescribers originating prescriptions
paid for in cash, in particular those duplicating prescriptions they have charged to Medicaid, can be tracked in PDMP data. In one case, a client picked up a Medicaid prescription for 250 10-milligram methadone tablets, then on the following day paid cash for 225 tablets at the same pharmacy, prescribed by the same doctor. Absent PDMP data, this duplicate prescribing would likely have gone undetected.

Like L&I, HCA uses batch files of PDMP data matched on their clients to conduct analyses to identify possibly problematic dispensing and prescribing in need of intervention. One analysis found that from January to July of 2012, over 2,000 clients had been dispensed Medicaid and cash-paid controlled substance (CS) prescriptions on the same day (although not necessarily the same drug). Another found that during the same period, 478 clients had filled cash and Medicaid prescriptions for the same controlled substance less than 10 days apart, 25% of them on the same day. Cases in the first group can be prioritized for intervention by the type and amount of CSs listed in an individual’s prescription history. Some combinations and amounts (e.g., the “trifecta of death”: opiates, benzodiazepines, and muscle relaxants) are more dangerous than others. Cases in the second group can be prioritized by the number and amount of prescriptions received in the 10-day period, as expressed for example in daily MMEs of opioids. Those with the highest MMEs above what is considered to be medically necessary for treating a client’s condition are the highest priority for intervention. Importantly, some clients from both groups may be candidates for lock-in via the PRC. These individuals would not have been identified without HCA’s pro-active PDMP data analyses.

Such analyses can also help identify providers who are the most active CS prescribers and those most likely to prescribe or dispense to patients paying cash for prescriptions. Possibly problematic prescribers as suggested by these analyses may be reported to the Washington Medical-Dental Assurance Committee, which then can pass the information on to the appropriate licensing board. Data on pharmacies suggestive of possible problematic dispensing (e.g., for dispensing cash-paid prescriptions that duplicate or overlap Medicaid prescriptions) can be reviewed by Medicaid’s fraud control unit; pharmacies out of compliance with Medicaid regulations may be notified that their non-compliance could be compromising patient health and safety.

PDMP data are also used by Medicaid in Washington’s Narcotic Restriction Program, which flags Medicaid providers with clients being prescribed 1,000 MMEs or more of opioids per day who are not in hospice and being treated for non-cancer chronic pain. These providers are

2 These 478 clients represent just two tenths of one percent of the 229,958 Medicaid clients that PDMP data show were dispensed prescriptions for scheduled medications during this time period (January to July 2012).

3 Note that PDMP data do not prove a client is exceeding medically indicated dosing for a controlled substance, but simply suggest this as a possibility which must be investigated and possibly confirmed via other sources. In some cases there may be valid reasons for obtaining extra doses, for instance, leaving on an extended trip.

4 In a related initiative, the 20 most active prescribers were called by HCA’s medical director, after which most reduced their prescribing, dropping below the top 20 threshold.
advised to reduce the dose, and their prescribing is subsequently monitored via both Medicaid claims and PDMP data; the latter completes the picture by showing all prescriptions prescribed to these providers’ clients.

**Record matching and data quality: opportunities for improvement**

Representatives for both L&I and HCA had ideas for how data sharing could be improved to get the most out of PDMP data. At the top of the list was more reliable matching of patients and prescribers between PDMP data and Medicaid and workers’ compensation data sets. The absence of a single unique patient identifier in PDMP data, e.g., a social security number (SS#), means that matches have to be made using a patient’s name, address, and date of birth. This information is sometimes recorded inaccurately by pharmacies, and of course names are sometimes shared among patients or spelled differently for the same patient by different providers. This can result in duplicate or inaccurate records. Since HCA and L&I have access to their patients’ SS#s, it was suggested that PDMPs could follow suit, or perhaps use another unique patient identifier adopted by all systems sharing data. Similarly, better matching of providers between Medicaid and PDMP data could be achieved were PDMPs to collect the provider’s National Provider Identifier (NPI) number as well as the provider’s DEA registration number, since Medicaid uses the NPI to identify providers. Good matching of patients and providers between data sets, as well as good PDMP data quality in other respects, is critical for accurate monitoring of the prescription behavior of all parties to the dispensing of controlled substances.

Another suggested opportunity for improvement was more reliable coding of payment method in PDMP data. In some instances, patients present a discount card when picking up a prescription, and although the prescription is paid for in cash, it sometimes gets coded as paid by private insurance. In other cases, clients will pay cash for a prescription, then return with a Medicaid card for reimbursement, but the method of payment remains coded as cash, not changed to Medicaid. More accurate payment coding would improve tracking of cash and private third party payer prescriptions that might be duplicating those paid for by Medicaid and the worker’s compensation program.

Both HCA and L&I reported that the process of arranging batch data transfers took several months, requiring many revisions of file specifications and data fields before PDMP files became useable. This suggests that there might be lessons to be learned from both agencies’ experience which would make this process more efficient for future PDMP data sharing initiatives, whether with public or private third party payers. Documenting this experience could suggest templates for data fields, data sharing protocols and the procedures used to develop final versions.

Both agencies also reported that their newly instituted bulk data analyses identified more individuals potentially needing follow up than their staff could immediately handle. To take full advantage of the enhanced detection of possible questionable activity made possible by use of PDMP data, agencies tasked with improving health outcomes and reducing costs may need to find more resources for case management, lock-in programs and other types of interventions.
L&I indicated that additional resources would be helpful to expand monitoring to drugs besides opioids. More resources would also enable documentation of the outcomes and benefits of PDMP data use, for instance, tracking injured workers in need of intervention and the outcomes of interventions, as well as generating estimates of possible cost savings.

**Conclusion: Benefits of PDMP data sharing**

As suggested by the findings above, use of PDMP data by Washington’s Medicaid and workers’ compensation programs has many benefits, including:

- Better identification and earlier intervention with clients possibly at risk of addiction, overdose, and death due to medically unwarranted prescription drug use.
- Better coordination of care among multiple providers who may not be aware of a patient’s duplicate or overlapping prescriptions.
- Better treatment outcomes, including recovery from injuries, stemming from the improved medical care made possible by knowing an individual’s prescription drug history and use.
- Improved monitoring of patients in lock-in and other intervention programs (e.g., Medicaid’s PRC and L&I’s early opioid intervention program), and better identification of patients that might benefit from such programs.
- Proactive identification, using bulk PDMP data, of many more individuals potentially in need of help with prescription drug related problems than is possible via referrals from case managers and other sources. Cases also come to light earlier, increasing the chances of successful intervention.
- Proper allocation of liability for medical claims by identifying possible pre-injury conditions related to prescription drug use (e.g., addiction, abuse, chronic pain) for which a workers’ compensation program should not be responsible.
- Reduction in costs made possible by improved care and reduction in medically unnecessary prescription drug use and diversion. HCA estimated in 2006 that the Medicaid PRC lock-in program saves, on average, $6,000 a year per client; by facilitating better use of the PRC, the PDMP is contributing to these savings. Use of PDMP data by L&I may reduce workers’ compensation costs by limiting liability (see immediately above) and by enabling more effective treatment for injuries, such that workers return to work sooner; this reduces the amount paid in compensation and increases their productivity.
- Improved discovery and monitoring of questionable activity, witting or unwitting, on the part of prescribers and dispensers, resulting in reduced diversion and associated costs.
- Education of providers concerning PDMPs. Providers are often unaware of the PDMP, so contact by HCA and L&I prompted by review of PDMP prescription data informs them about the PDMP’s utility. This may result in greater utilization of the PDMP by providers,

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5 As reported by Washington State PDMP administrator Chris Baumgartner in “State Agency Access,” a presentation for the Western Regional Meeting of State PDMPs hosted by the PDMP Training and Technical Assistance Center in September 2012.
which in turn helps to improve medical care and reduce prescription drug abuse and diversion.\(^6\)

In sum, Washington State’s provision of PDMP data to its Medicaid and worker’s compensation programs has already produced many benefits. This suggests, as the HCA representative put it, that Medicaid and other third party payer programs may be able to better serve thousands of their patients by utilizing PDMP data to detect potential prescription drug abuse.

As data sharing capabilities improve, for example, by means of better patient and provider matching across data sets, the value of PDMP data for HCA and L&I should increase. However, taking full advantage of the increased capacity that PDMP data make possible to identify individuals (patients and providers) potentially in need of intervention may require additional resources. Documenting the full range of benefits and precise cost savings made possible by PDMP data is beyond the scope of this report, but could be the focus of future initiatives by both agencies. Meanwhile, the Washington data sharing initiative seems a promising model that other states, as well as private third party payers, could adopt in helping PDMPs realize their full potential in mitigating the prescription drug abuse epidemic.\(^7\)

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**Acknowledgements:** The PDMP Center of Excellence wishes to thank Chris Baumgartner, administrator of the Washington State PDMP, Jaymie Mai, Pharmacy Manager for the Washington Department of Labor and Industries, and Scott Best, Clinical Nurse Advisor for the Washington State Health Care Authority, for their time, expertise and editorial assistance in producing this report.


\(^7\) For some states, replicating Washington’s data sharing initiative may require amending PDMP enabling legislation or governing regulations.
Figure 1

L&I Queries to Washington State PDMP, October 2011 - June 2012

Number of Queries

Date

Date

Figure 2

HCA Queries to Washington State PDMP, October 2011 - June 2012

Number of Queries

Date

Date