

January 2020

# >> Prescription Drug Monitoring Program 2018 Annual Report to the Advisory Commission



Oregon  
**Health**  
Authority  
PUBLIC HEALTH DIVISION

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# Abbreviations

BJA	Bureau of Justice Affairs (a bureau of the federal Department of Justice)
CCO	coordinated care organization
CDC	Centers for Disease Control and Prevention
CNS-PP	clinical nurse specialist (a nurse with prescribing privileges)
DDS	doctor of dental surgery (DDS and DMD are equivalent degrees)
DMD	doctor of medicine in dentistry or doctor of dental medicine
DEA	Drug Enforcement Agency
DO	doctor of osteopathy
EDIE	Emergency Department Information Exchange
EHR	electronic health record
HB	House Bill
HID	Health Information Design (this third-party vendor hosted the PDMP until 2017)
MD	medical doctor
ND	naturopathic doctor
NP	nurse practitioner (a nurse with prescribing privileges)
NPI	National Provider Identifier
OHA	Oregon Health Authority
OHSU	Oregon Health & Science University
OSU	Oregon State University
PA	physician assistant
PMPi	Prescription Monitoring Program InterConnect
PDMP	Prescription Drug Monitoring Program
PfS	Prevention for States (a grant awarded by the Centers for Disease Control and Prevention)
RPh	pharmacist
SB	Senate Bill

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# Executive summary

## Legislative changes

The PDMP underwent several system changes during 2018:

- 2018 HB 4143 mandated registration for all prescribers licensed to practice in Oregon and possessing a DEA number at an Oregon facility, effective July 1, 2018.
- 2017 HB 3440 implementation: This bill amended the PDMP statute, effective Jan. 1, 2018, to establish the Prescription Monitoring Program Prescribing Practices Review Subcommittee, allow medical and pharmacy directors PDMP access, allow interstate data sharing and make naloxone reportable. The bill's implementation is ongoing:
  - » The Prescription Monitoring Program Advisory Commission Prescribing Practices Review Subcommittee sends quarterly letters to prescribers whose prescribing meets high-risk thresholds: co-prescription of benzodiazepines and opioids, high-dose prescribing, initiation of opioid naïve patients and prescribing to patients with four or more prescribers.
  - » Interstate data sharing through the Prescription Monitoring Program InterConnect (PMPi) data-sharing hub permits users to query PDMPs of participating states. Oregon prescribers mainly share data with PDMPs in nearby states (Idaho, Nevada). Work continues to establish data-sharing with Washington and California.
  - » Naloxone is now reported to the PDMP.
- 2016 HB 4124 implementation: This bill permits PDMP data integration into health information technology systems through the Appriss Gateway. PDMP data had been available through the Emergency Department Information Exchange (EDIE) for more than a year in December 2018. Other clinics, hospitals, health systems and pharmacies integrated PDMP into their electronic health records in 2018.

## Oregon Secretary of State's office audit

In 2018 the Secretary of State's office audited the Oregon PDMP. Auditors interviewed internal and external stakeholders; they reviewed relevant statutes, administrative rules, policies, procedures, documents, reports and data sets.

The Secretary of State's office report recommended improvements. Four of these reflected known issues that supported ongoing registration and data quality efforts:

- Maintain a partnership with health licensing boards to target outreach efforts to register all required prescribers with the PDMP.
- Provide guidance to prescribers on ways to integrate the PDMP into their daily work.
- Verify practitioner specialty information and update the PDMP.
- Work with the vendor and the Board of Pharmacy to ensure the PDMP database includes prescriptions made by X-waivered prescribers.

PDMP staff began an ambitious schedule to implement these recommendations by the end of 2018.

The remaining recommendations require action by another decision-making body such as the Board of Pharmacy or the Oregon Legislature, or fall outside the PDMP's statutory authority. OHA will continue to serve on the Governor's Opioid Task Force and provide evidence-based recommendations to the Legislature to improve the PDMP and health outcomes.

## Reporting compliance and data quality

As statute requires, 95% of pharmacies submitted prescription information within 72 hours. The remaining 5% came into compliance within 30 days. There was an error rate of less than 1% for data submitted.

In fall 2018, PDMP staff updated user account information to add missing provider specialty information from licensing boards and the National Provider Identifier (NPI) database.

## PDMP registration

HB 4143, passed in 2018, mandated Oregon PDMP registration for all Oregon-licensed prescribers that possess a DEA number at an Oregon facility. Between 2017 and 2018:

- The number of system accounts increased by 118.4% to 27,748.
- All user types increased enrollment.
- 81% of Oregon prescribers and 95% of the top 4,000 prescribers had a PDMP account.
- The number of delegate accounts continued to grow (+19%), but delegates decreased as a percentage of users (15%).

## PDMP utilization

PDMP queries increased in 2018 for all license types and delegates. The number of people querying decreased. In 2018:

- The PDMP received 1,593,982 unique system queries, a 39% increase over 2017.
- All license types increased. Nurse practitioners (+52%) and delegates (+49%) had the largest increases.
- While prescriber queries have grown, delegate queries have outpaced them.
- Pharmacists led in PDMP utilization.
- The number of active users decreased by 17% in 2018. Active users decreased among pharmacists (-36%), delegates (-15%), nurse practitioners (-14%), MDs, DOs and PAs (-11%), and dentists (-8%).

## PDMP integration

In 2018, the Emergency Department Information Exchange (EDIE), and other integrated queries increased, while PDMP queries through the AWARxE web portal have been stable. In 2018, there were:

- 88,607 integrated queries from Oregon hospitals; 68,413 returned data, resulting in 15,971 reports from 439 prescribers at 26 facilities.
- 703,050 EDIE integrated queries; 298,003 returned data, resulting in 154,088 reports from 28 facilities.
- 421,830 integrated pharmacy queries; 274,453 returned data, resulting in 185,141 reports from 514 pharmacists at 123 pharmacies.
- 1,856,504 out-of-state integrated queries; 66,860 returned data, resulting in 50,046 reports from 1,799 prescribers at five facilities.

# Introduction and public health importance

In 2009, the Oregon Legislature passed Senate Bill 355, which directed OHA to develop a Prescription Drug Monitoring Program (PDMP). The PDMP went live in September 2011. The PDMP is an electronic, web-based data system that collects information on Schedule II–IV controlled substances dispensed by retail pharmacies. The system gives users — who may be prescribers, pharmacists, clinical supervisors, medical examiners or their delegates — access to information about controlled substances dispensed to their patients. The intent of the PDMP is to support health care providers, improve patient care and prevent harms associated with prescription drugs.

The objective of this annual report is to inform those who guide the PDMP by assessing program performance. This report is intended to provide the PDMP Advisory Commission with information and performance metrics relevant to the operation of the program, including system registration, utilization, status on key objectives and evaluation activities.



# PDMP system changes

## Mandatory enrollment

In February 2018 the Oregon Legislature passed HB 4143 that required all licensed prescribers with a valid DEA number to register with the PDMP by July 1, 2018. PDMP enrollment had a pronounced surge in 2018 ([Table 1](#)). While Oregon has not achieved universal PDMP registration, it is approaching universal registration among frequent prescribers ([Figure 3](#)).

## Health information technology integration

PDMP staff continue to implement 2016 HB 4124. This bill amended the PDMP legislation to allow integration of PDMP data into health information technology systems so that prescribers can access PDMP through their EHR. In 2018 OHA, in partnership with the Oregon Health IT Commons, negotiated a statewide license for PDMP integration. The statewide license has removed barriers to integration by connecting entities across the state to the PDMP under a single umbrella agreement. At the close of 2018, PDMP data had been available through the Emergency Department Information Exchange (EDIE) for more than a year. Other clinics, hospitals, health systems and pharmacies have integrated PDMP into their electronic health records over the course of the year. Integrated queries are becoming a more common way of interacting with PDMP data.

## Interstate data sharing

The PMPi data sharing hub permits users of participating PDMPs to query the PDMPs of other participating states. These queries originate in one state's web portal and use the data sharing hub to retrieve records from other states' PDMPs.

- Oregon is currently sharing data with five states: Idaho, North Dakota, Kansas, Nevada and Texas.
- Use of the PMPi data sharing hub by Oregon prescribers is predominantly directed toward query of PDMPs in nearby states (Idaho, Nevada).
- A similar pattern is observed in queries coming to the Oregon PDMP from other states through the data sharing hub. Neighboring states are the source of most queries.
- Ongoing efforts are focused on developing data sharing agreements with neighboring states of Washington and California.



# Oregon Secretary of State's office audit

In 2018 the Oregon PDMP underwent an audit by the Secretary of State's office. The auditors conducted interviews with internal and external stakeholders; reviewed relevant statutes, administrative rules, policies and procedures; combed through program documents and reports; and analyzed program data sets.

The Secretary of State's office audit report identified several areas for improvement. Of these, four reflected known issues that supported our ongoing registration and data quality efforts:

- Maintain an ongoing partnership with health licensing boards to target outreach efforts to get all required prescribers registered with the PDMP.
- Provide guidance to prescribers on ways to integrate accessing the PDMP database into their daily workflow, including examples.
- Verify practitioner specialty information with the respective health licensing board and update the PDMP database with this information.
- Work with the PDMP vendor and the Board of Pharmacy to make sure prescriptions made by X-waivered prescribers are included in the PDMP database.

PDMP staff initiated an ambitious schedule to implement these recommendations by the end of 2018. The remaining recommendations were ideas and concepts gleaned from other states and stakeholders that require action by another decision-making body such as the Board of Pharmacy or the Oregon Legislature, or fall outside the scope of the PDMP's current statutory authority:

- Identify and propose drugs of concern, such as gabapentin, to the Board of Pharmacy and Legislature that should be added to the state's controlled-substance schedule and collected by the PDMP.
- Develop a process for, and facilitate the sharing of, data between PDMP and Medicaid to help ensure completeness of PDMP prescription history and allow Medicaid to better monitor the prescription behavior of its clients.
- Expand statutes to allow the PDMP to conduct and share analyses on prescription data, including:
  - » Analyzing prescriber, pharmacy and patient prescription practices
  - » Making prescriber report cards available, and
  - » Preparing and issuing unsolicited reports to licensing boards and law enforcement.

- Seek legislative action to address the issue of prescribers not registering with the PDMP as required and pharmacies not submitting corrected data within statutory requirements.
- Provide further authority to the Clinical Review Subcommittee to require the justification of practices deemed concerning and allow the collaboration with licensing boards and law enforcement for concerning practices.
- Expand authority for other professional and state entities authorized access to PDMP information.
- Require and set parameters for when prescribers must query the PDMP database to review a patient’s prescription history. This should include, at a minimum, requiring the querying of the PDMP database prior to prescribing controlled substances and substances of concern, and for dispensers to query the database prior to issuing a medication and periodically while the patient is taking those medications.
- Allow for additional information to be collected by the PDMP. This should include:
  - » Prescriptions for Schedule V controlled substances and other drugs of concern
  - » Applicable prescriptions from other types of pharmacies besides retail pharmacies
  - » Applicable prescriptions prescribed by veterinarians
  - » Method of payment used to pay for the prescription
  - » Patients who are restricted or have a “lock-in” to a single prescriber and a single pharmacy for obtaining controlled substances, and
  - » Diagnosis codes related to the prescription.

OHA is aware of the PDMP’s current limitations and is actively engaged in policy discussions regarding potential legislative changes to add to the PDMP’s capabilities and increase access to the system and its data. To address those recommendations that would require changes in statute, OHA will continue to serve on the Governor’s Opioid Task Force and provide information to legislators on evidence-based recommendations to improve the PDMP and related health outcomes.

# Operations and business processes

The PDMP completed its seventh full year of operation in 2018. The program routinely monitors metrics to evaluate operations and improve business processes. Quarterly business operation and prescribing trend reports are available at [healthoregon.org/pdmp](http://healthoregon.org/pdmp).

## Pharmacy reporting compliance

Retail pharmacies licensed by the Oregon Board of Pharmacy are required to report data on all prescriptions for schedules II–IV controlled substances to the PDMP within 72 hours of dispensing. The roster of participating pharmacies continually changes as new pharmacies open and existing pharmacies close. Pharmacies changing or updating information systems may require troubleshooting or result in discontinuity in reporting. Compliance management is ongoing.

In 2018, all pharmacies required to report controlled substance prescription data submitted data to the PDMP. During 2018, 95% of pharmacies were in compliance, reporting dispensed prescriptions within 72 hours as required by law. The remaining 5% were brought into compliance within 30 days.

## Data quality

Pharmacies report data to the PDMP within 72 hours of prescription fill. OHA's software vendor, Appriss Health, creates automated error reports, which PDMP staff review for frequency of errors by type and by pharmacy. The most common pharmacy error is an incomplete report. Pharmacies with data errors are granted time to make corrections. Many resubmit with corrections. In 2018, the PDMP worked with reporting pharmacies to improve responses to rejection reports. The program provided support and education on the need for PDMP data accuracy to begin with error-free data entry at the pharmacy. Mistyped or skipped-over manual entering is the likely cause of the most common pharmacy data errors, which include unknown DEA numbers or invalid ZIP codes. Overall, pharmacies had a less than 1% rate of errors for all data submitted in 2018.

PDMP staff have been continuously working to improve data quality and keep user account information current. Account holders with invalid email addresses were contacted during 2018. Accounts were removed when staff could not reach the account holder to update information.

Prior to migration of the PDMP from the Health Information Design (HID) platform, prescriber specialty was not available. The new Appriss AWA<sup>R</sup>x<sup>E</sup> platform prescriber specialty is part of the user profile. For accounts migrated from the old HID platform, specialty data were incomplete and unreliable. The PDMP's spring 2018 work for the Prescribing Practices Review Subcommittee, which was to identify prescribers who met high-risk prescribing thresholds, highlighted the need for better data on prescriber specialty. Identifiers such as Drug Enforcement Agency (DEA) license number, NPI and state license number in the PDMP are recorded by self-report at the time of registration. Missing data and formatting differences between the HID system and AWA<sup>R</sup>x<sup>E</sup> platforms resulted in data quality issues. In fall 2018, PDMP staff initiated a systematic update of user account information to add missing specialty and correct erroneous identifiers using information gleaned from licensing boards and the NPI database. This work concluded in December 2018.

## PDMP system user survey

The PDMP conducts evaluation activities to monitor user experience and access. One key tool is the user survey. Some salient results from the 2018 survey include:

- » 81% of responding prescribers and 96% of pharmacists agreed or strongly agreed that the PDMP improves the safety of their patients.
- » 78% of respondents agreed or strongly agreed that the PDMP has improved their management of prescriptions for controlled substances.
- » 61% of prescribers reported an increase in communication with their patients as a result of PDMP use.
- » Reasons provided for PDMP use included prescription of a controlled substance to a new patient (37%), a new prescription to an existing patient (31%), early refills (28%), routine use for all prescriptions (13%) and monitoring a medication taper (9%).
- » 14% of prescribers and 47% of pharmacists access the PDMP daily.
- » The reported top barriers to use were time, forgotten passwords, inability to find patients in the system and lack of delegates.
- » Large private practices, hospitals, safety net clinics and corporate pharmacies are far more likely to have PDMP use policies than smaller practices.

The 2018 survey incorporated a new component for prescriber and pharmacy delegates, who have become the most frequent users of the PDMP. Some salient results from the 2018 delegate survey include:

- Delegate access remains an important pathway through which prescribers access PDMP information.
- More than 56% of responding delegates registered for the PDMP in the last two years. More than 22% registered within the last year.
- 61% of delegates work in private practices; 31% of these delegates work in small practices, and 29% in large practices (>6 providers).
- The most common practice type among delegates was family or internal medicine (57%).
- Most delegates consult the PDMP on behalf of multiple prescribers (one prescriber 27%, two prescribers 14%, three prescribers 12%, four prescribers 9%, five or more prescribers 38%).
- 40% of delegates reported consulting the PDMP daily, 33% weekly and 20% monthly.
- The amount of time spent by delegates checking the PDMP was highly variable: 10 minutes or less (46%), 10–30 minutes (40%), 30 minutes or more (11%).
- Reasons provided for PDMP use by delegates included writing a new prescription for an existing patient (60%), early refills (55%), prescribing controlled substances to a new patient (52%), routine use for all prescriptions (37%) and monitoring a medication taper (21%).

# PDMP registration

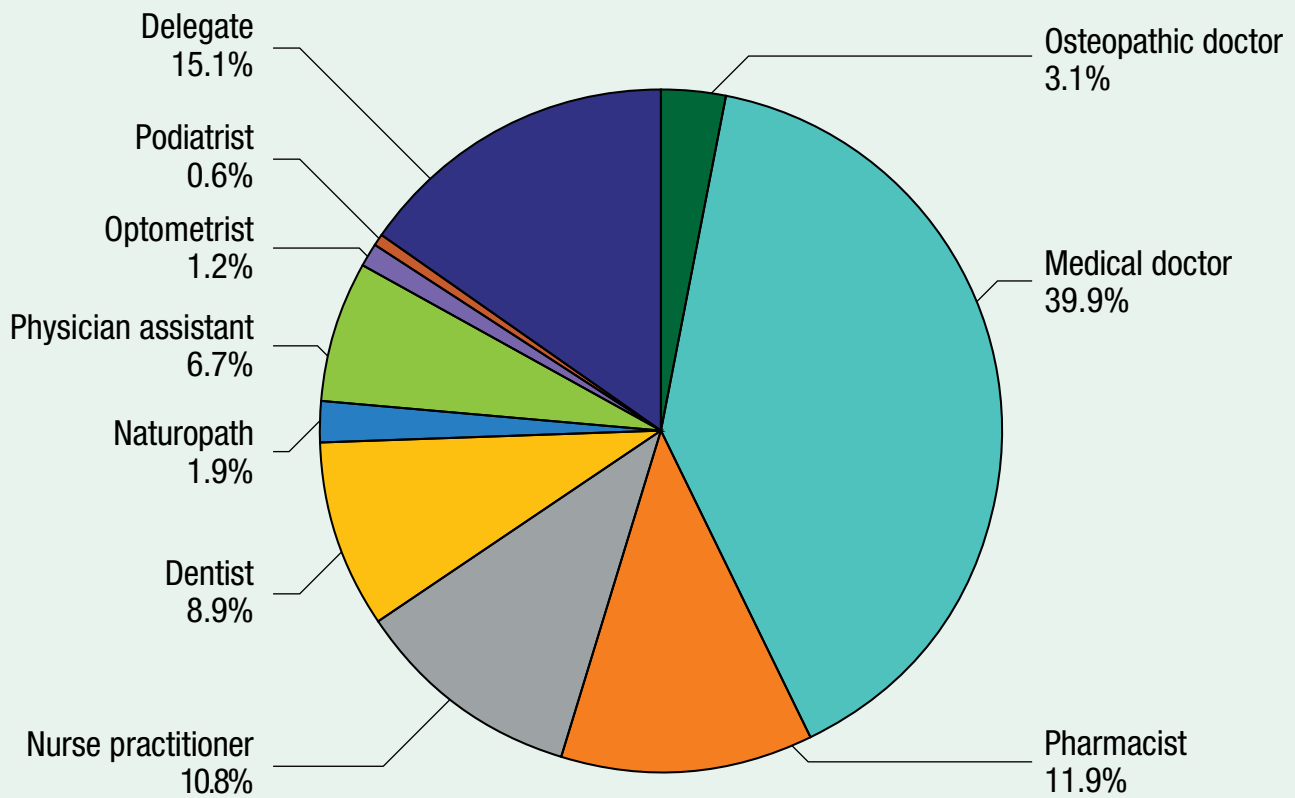
PDMP registration is available to health care providers licensed in Oregon and neighboring states, pharmacists, and the state medical examiner. Users may delegate PDMP access authority to other health care, pharmacy or medical examiner staff. Delegates may be unlicensed staff.

At the close of 2018, there were 27,748 PDMP accounts. In 2018, all prescribers licensed in Oregon and holding a DEA number associated with a facility in Oregon were required to register for the PDMP before July 1. This triggered a surge in registration and a 118% increase in registration. This increase was seen across all prescriber types with the largest change among MDs, DOs and PAs (174%) and dentists (175%) (Table 1).

**Table 1. PDMP system accounts by licensing board, Oregon, 2018**

License	PDMP accounts	Change from 2017
MD/DO/PA	13,449	+174.0%
Pharmacists	4,181	+56.4%
Delegates	3,285	+19.8%
Nurses	2,894	+97.0%
Dentists	2,453	+175.3%
Naturopaths	514	+104.7%
<b>TOTAL</b>	<b>27,748</b>	<b>+118.4%</b>

Figure 1: PDMP system accounts by discipline: Oregon, 2018 (n = 12,776)



The trend in recent years has been toward prescribers' greater reliance on delegates to consult the PDMP. While the number of delegate accounts continued to grow (+19.8%), delegate accounts decreased as a percentage of total accounts. At the close of 2018, delegates held slightly more than 15% of user accounts (Figure 1), which is down from 21.6% in 2017. This shift is largely due to mandatory prescriber registration but may also reflect the increasing use of PDMP integration in Oregon hospitals and clinics. In 2018, 92% of delegates consulted the system on behalf of prescribers, while the remaining 8% used the system on behalf of pharmacists.

Health care providers practicing in states bordering Oregon (California, Idaho and Washington) accounted for 6% (1,612) of total PDMP accounts. There were 1,150 accounts for Washington providers, 215 for Idaho providers, 222 for California providers and 25 for Nevada providers.



# PDMP utilization

Major trends in 2018 utilization data were a decrease in active system users (Table 2) and an increase in queries (Figure 2). The PDMP received more queries from fewer people.

PDMP queries increased by nearly 39%. This increase was evident across all user groups.

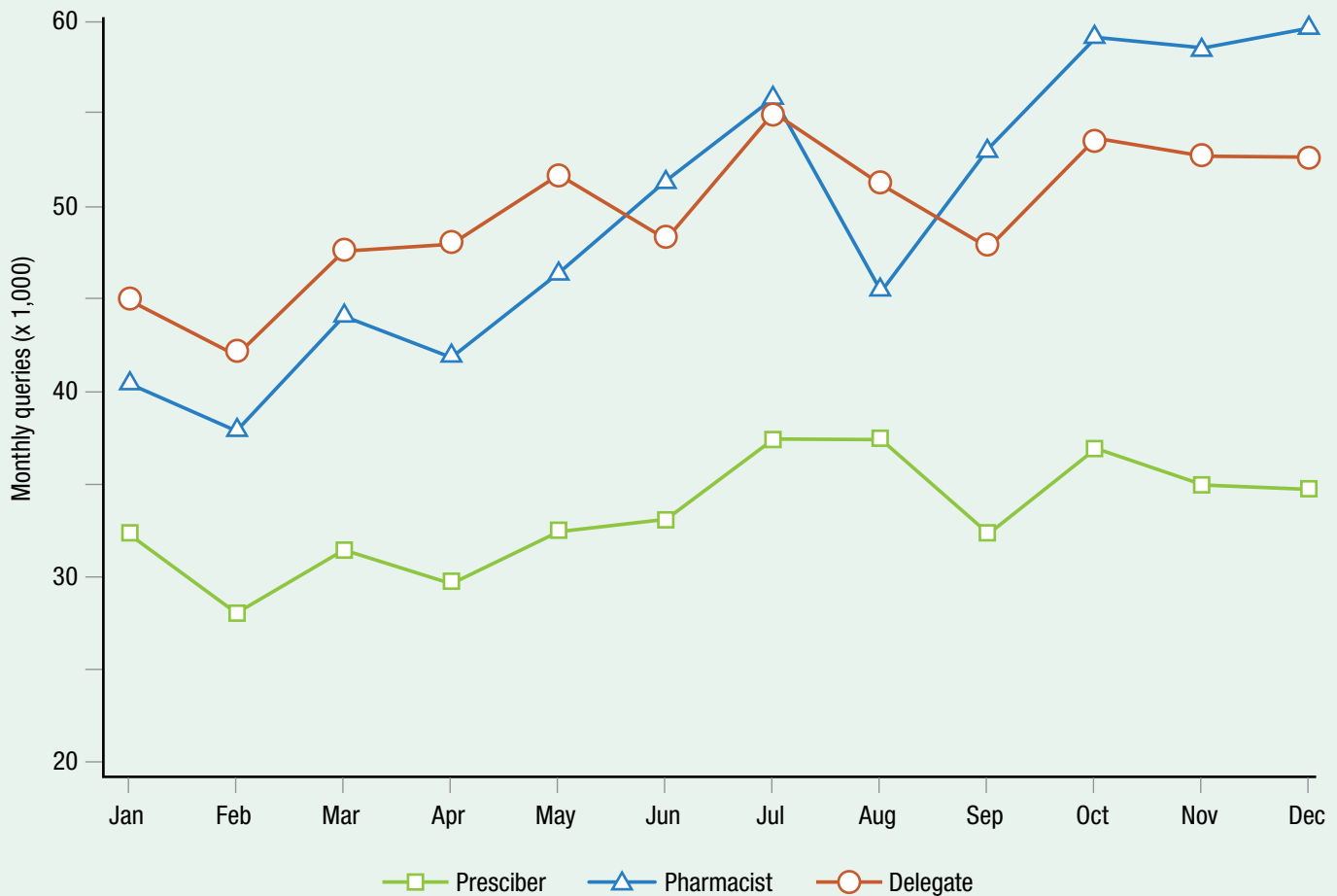
Queries by delegates have continued to increase significantly, rising nearly 50% in 2018 (Table 3). Also notable is the growth in the number of queries by pharmacists, nurse practitioners and naturopaths. Despite leading in registration, dentists and doctors showed more modest increases in PDMP querying activity.

**Table 2. Number of PDMP queries by user group: Oregon, 2017–2018**

License	Active users*	Change from 2017
MD/DO/PA	4,715	-11.4%
Delegates	3,215	-15.4%
Pharmacists	2,448	-35.5%
Nurses	1,537	-14.2%
Dentists	837	+8.0%
Naturopaths	253	-0.4%
<b>TOTAL</b>	<b>12,999</b>	<b>-17.4%</b>

\* An active user is defined as making more than one query.

**Figure 2: Oregon PDMP queries by month, 2018**



Prescriber queries have grown slowly, while queries by delegates and pharmacists have increased more rapidly. Pharmacists are leaders in PDMP utilization.

Overall, the number of active PDMP users decreased by more than 17% during 2018. This decrease was unevenly distributed across the different user types. Active users decreased among MDs, DOs and PAs, pharmacists, nurse practitioners, and delegates; active users increased among dentists. These changes may reflect clinicians increasingly delegating PDMP use to staff in their practices, or to integration of PDMP into the Emergency Department Information Exchange (EDIE). EDIE queries are not reflected in the numbers presented here.

**Table 3. PDMP active users by user group: Oregon, 2016–2017**

License	Queries	Change from 2017
Delegates	596,283	+49.0%
Pharmacists	594,614	+40.3%
MD/DO/PA	275,042	+14.9%
Nurses	106,467	+52.4%
Dentists	12,465	+23.4%
Naturopaths	6,810	+34.2%
<b>TOTAL</b>	<b>1,593,982</b>	<b>+38.8%</b>

Note: Duplication of queries in this table was removed by checking user ID, date and patient last name.

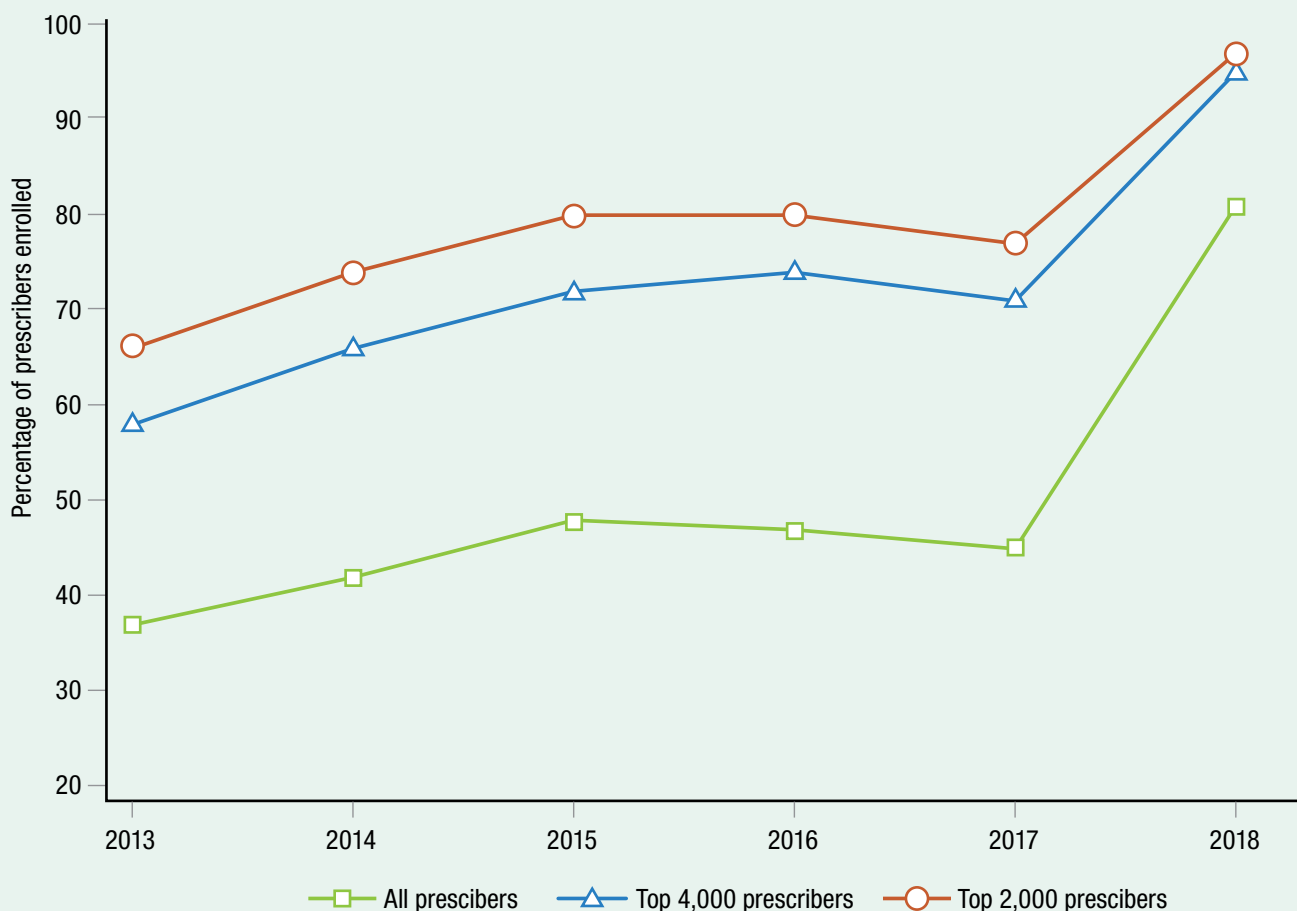
# Frequent prescribers

PDMP staff have targeted outreach to frequent prescribers. In 2018, the top 4,000 health care providers by controlled substance prescribing volume prescribed 77% of the controlled substances recorded in the PDMP. While 81% of all Oregon licensed prescribers were enrolled in the PDMP at the end of 2018, 95% of the 4,000 most frequent prescribers were enrolled ([Figure 3](#)).

**Table 4. Percentage of controlled substance prescribers enrolled in PDMP by number of prescriptions, Oregon, 2014–2018**

Prescribers	2014	2015	2016	2017	2018
Top 2,000	74%	80%	80%	77%	97%
Top 4,000	66%	72%	74%	71%	95%
All Oregon prescribers	42%	48%	47%	45%	81%

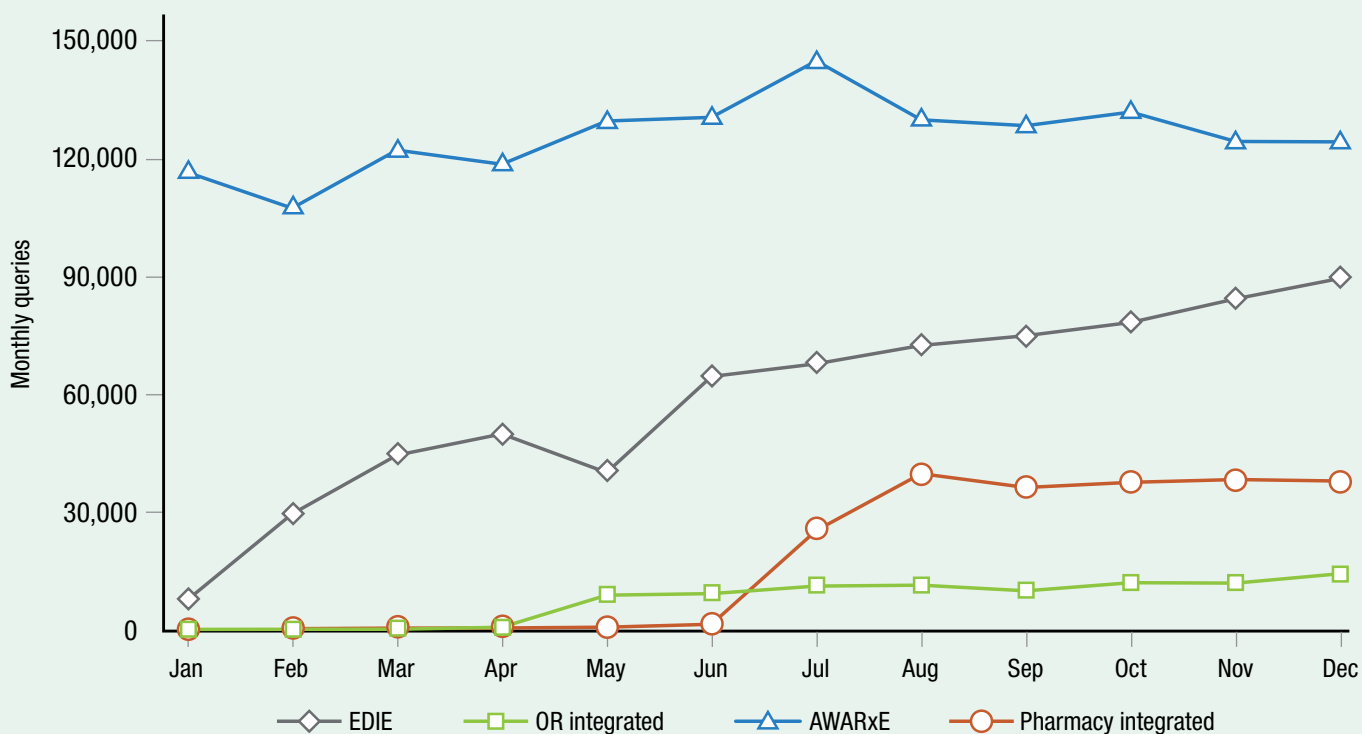
**Figure 3. Oregon PDMP registration: 2013–2018**



# Health information technology integration

Practitioners have two options for querying the PDMP: The AWARe web portal, or the PMPi Gateway through a health information technology (HIT) platform. The Gateway is a conduit for integration of the PDMP into HIT systems and electronic health records (EHRs). Integration facilitates use the PDMP within clinical workflows. Oregon Health IT Commons provided a statewide agreement for low-cost integration to Oregon health care entities in July 2018.

Figure 4. Integrated PDMP queries by month, 2018



Since the beginning of 2018, trends in integrated queries show the expansion of integration. During the same period, AWA<sup>R</sup>x<sup>E</sup> web portal queries (shown here for reference) have continued to increase ([Figure 4](#)). In 2018:

- There were 88,607 Oregon integrated queries, 68,413 of which returned data, resulting in 15,971 reports from 439 prescribers at 26 facilities.
- There were 703,050 EDIE integrated queries, 298,003 of which returned data, resulting in 154,088 reports from 28 facilities.
- There were 421,830 integrated pharmacy queries, 274,453 of which returned data, resulting in 185,141 reports from 514 pharmacists at 123 pharmacies.
- There were 1,856,504 out-of-state integrated queries, 66,860 of which returned data, resulting in 50,046 reports from 1,799 prescribers at five facilities.

# Interactive data dashboard

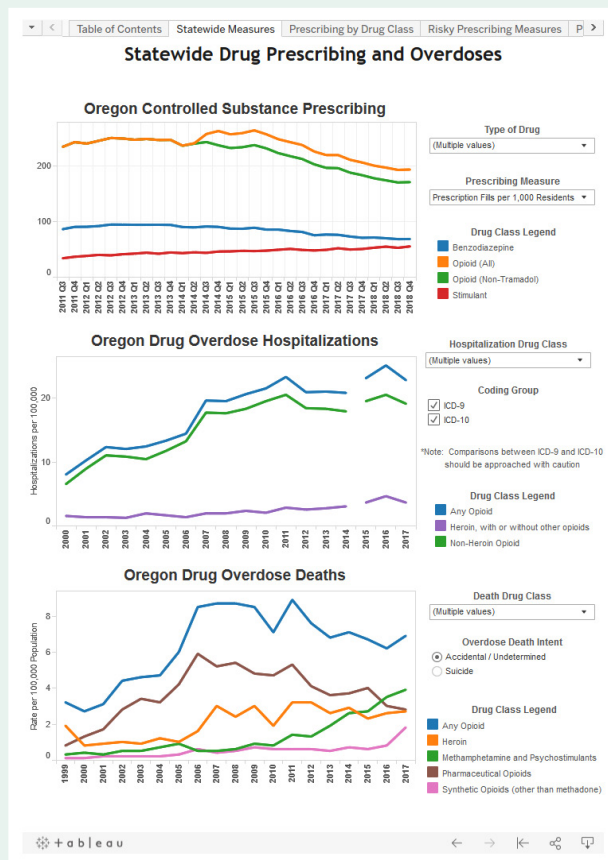
The PDMP makes aggregated PDMP data available to policymakers, state agencies, local governments and community organizations. These organizations promote PDMP use, implement prescribing guidelines, promote non-opioid pain management strategies, educate prescribers and the public, and improve access to addiction treatment services.

The Oregon Prescribing and Drug Overdose Data Dashboard (Figure 5) is one important way of sharing PDMP data. The dashboard provides a web-based interface for people to interact with PDMP, Emergency Medical Services (EMS), hospitalization, vital records and medical examiner data. The dashboard provides a portal where the user can select variables, geographies and time periods. The dashboard is available at:

<https://www.oregon.gov/oha/ph/PreventionWellness/SubstanceUse/Opioids/Pages/data.aspx>.

Dashboard data and visualizations are used in presentations and government documents throughout Oregon. There were 8,904 unique page views in 2018, a 41% increase from 2017.

Figure 5. Oregon Prescribing and Drug Overdose Data Dashboard



# Data requests

PDMP staff respond to data requests from a variety of sources. Several different entities are entitled to timely access to PDMP data: patients, health care regulatory boards and law enforcement agencies.

## Patient-requested reports

Patients may request a copy of their PDMP information. This includes lists of prescriptions dispensed and system users who accessed their PDMP information. Patients may also ask for their PDMP information to go to a third party, such as a behavioral health care provider or an attorney. PDMP staff met all patient requests in 2018 within the statutorily required timeframe (10 business days).

Sixty-eight patient-requested reports were completed in 2018.

## Health care regulatory board report requests

Health care regulatory boards may ask for PDMP information for an active investigation related to licensure, renewal or disciplinary action involving an applicant, licensee or registrant.

The PDMP received 385 data requests from regulatory boards in 2018. Requests by regulatory boards increased 37% between 2017 and 2018 (Table 5).

**Table 5. Regulatory board report requests by discipline: Oregon, 2017**

Licensing board	2014	2015	2016	2017	2018	% change
Oregon Medical Board	144	176	121	137	210	+53.3%
Board of Naturopathic Medicine	47	40	51	20	64	+220.0%
Board of Nursing	41	105	102	71	100	+40.8%
Board of Pharmacy	0	2	2	8	4	-
Board of Dentistry	1	3	6	1	6	-
Emergency Medical Services	2	2	0	0	1	-
<b>TOTAL</b>	<b>235</b>	<b>328</b>	<b>282</b>	<b>237</b>	<b>385</b>	<b>+62.4%</b>

- Insufficient number of reports to calculate a stable percentage.



## Law enforcement reports requested

Federal, state or local law enforcement agencies may request PDMP information for the purposes of an authorized drug-related investigation of an individual or prescriber. A valid court order based on probable cause is required. The PDMP forwards all law enforcement requests to the Oregon Department of Justice for review.

Twenty law enforcement requests were fulfilled in 2018.

# PDMP Advisory Commission activities

The Prescription Drug Monitoring Program Advisory Commission (PDMP-AC) has statutory responsibility to:

- Study issues related to the PDMP
- Review the program's annual report
- Make recommendations to OHA on program operation, and
- Develop criteria to evaluate program data.

The commission has monitored the progress of prescriber mandatory enrollment, integration into health information technology platforms, interstate data sharing and the activities of the Prescribing Practice Review Subcommittee. The commission met during 2018 to review program metrics and operational updates.

The PDMP Advisory Commission was engaged in the rule-making process for the prescriber mandate and the creation of medical and pharmacy director role types. The prescriber mandate led to a dramatic expansion of PDMP enrollment in 2018. The new role types provide PDMP access for clinical supervisors to monitor prescribing and dispensing behavior of those they supervise.

Laura Armstrong, OD, joined the commission in 2018 as a representative of the Board of Optometry.

# PDMP Practices Review Subcommittee

House Bill 3440, which passed in 2017, established a Prescription Monitoring Program Prescribing Practices Review Subcommittee tasked with developing prescribing criteria to identify prescribers for targeted education efforts around prescribing guidelines. The subcommittee convened in January 2018 and recommended a set of candidate metrics. PDMP staff were tasked with calculating how many prescribers rose above thresholds for each metric. The committee met in April to review the data and decide on final criteria for notification. The following three criteria were selected based on the first quarter of 2018, and the fourth was added following the first round of notifications:

1. Co-prescription of an opioid and a benzodiazepine in the same month to 25 or more unique patients in a quarter
2. Prescription of greater than 200 morphine equivalent dose (MED) to 50 or more patients in a quarter
3. Initiation of opioid treatment with a prescription for >42 pills to 20 or more patients who had no prescription for opioids in the 12 months prior
4. Prescription for an opioid written to 50 or more patients who received prescriptions from four or more prescribers in the preceding six months.

After the first round of notifications at the beginning of June 2018, two additional rounds of notifications were sent out to prescribers.

# Partnerships

The PDMP works with governmental partners, both inside and outside of OHA. PDMP staff have collaborated with counties, coordinated care organizations (CCOs) and OHA internal workgroups. Staff provide subject matter expertise, PDMP technical assistance and de-identified PDMP prescription data.

The PDMP supports grant-based programs within OHA and in the community with data on prescribing practices and system utilization. The PDMP supports the work of the Prescription Drug Overdose (PDO) coordinators for the nine regions of Oregon. These positions are funded through the Prevention for States grant from the Centers for Disease Control and Prevention's National Center for Injury Prevention and Control and the State Targeted Response grant from the Substance Abuse and Mental Health Services Administration. In past years PDO coordinators spearheaded local initiatives to increase enrollment among frequent prescribers by working with health officers and clinician champions, and through outreach to clinics. With the prescriber mandate the PDO coordinators' role has shifted from promoting PDMP registration and toward developing harm reduction strategies in local communities.

County officials, local public health and regional community partners use PDMP data to highlight prescribing measures, hospitalizations, overdose fatalities and other measures by various demographics (age, county, etc.) in reports, grant applications and presentations.

The PDMP supports health research by providing de-identified data to researchers and public health practitioners. Research collaborations include OHSU, OSU School of Pharmacy, counties, CCOs, schools of public health and other university-based researchers.

Some notable publications in 2018 using PDMP data include:

Carlson KF, Gilbert TA, Morasco BJ, Wright D, Otterloo JV, Herrndorf A, Cook LJ. Linkage of VA and state prescription drug monitoring program data to examine concurrent opioid and sedative hypnotic prescriptions among veterans. *Health Services Research*. 2018 Dec;53:5285-308.

Deyo RA, Hallvik SE, Hildebran C, Marino M, Springer R, Irvine JM, O'Kane N, Van Otterloo J, Wright DA, Leichtling G, Millet LM. Association of prescription drug monitoring program use with opioid prescribing and health outcomes: a comparison of program users and nonusers. *The Journal of Pain*. 2018 Feb 1;19(2):166-77.

- Deyo RA, Hallvik SE, Hildebran C, Marino M, O’Kane N, Carson J, Van Otterloo J, Wright DA, Millet LM, Wakeland W. Use of prescription opioids before and after an operation for chronic pain (lumbar fusion surgery). *Pain*. 2018 Jun 1;159(6):1147-54.
- Fink PB, Deyo RA, Hallvik SE, Hildebran C. Opioid prescribing patterns and patient outcomes by prescriber type in the Oregon Prescription Drug Monitoring Program. *Pain Medicine*. 2018 Dec;19(12):2481-6.
- Geissert P, Hallvik S, Van Otterloo J, O’Kane N, Alley L, Carson J, Leichtling G, Hildebran III C, Wakeland W, Deyo RA. High-risk prescribing and opioid overdose: prospects for prescription drug monitoring program-based proactive alerts. *Pain*. 2018 Jan 1;159(1):150-6.
- Hallvik SE, Geissert P, Wakeland W, Hildebran C, Carson J, O’Kane N, Deyo RA. Opioid-prescribing continuity and risky opioid prescriptions. *The Annals of Family Medicine*. 2018 Sep 1;16(5):440-2.
- Hedberg K, Bui LT, Livingston C, Shields LM, Van Otterloo J. Integrating public health and health care strategies to address the opioid epidemic: the Oregon Health Authority’s opioid initiative. *Journal of Public Health Management and Practice: JPHMP*. 2018 Jul 18.
- Smith DH, Kuntz JL, DeBar LL, Mesa J, Yang X, Schneider J, Petrik A, Reese K, Thorsness LA, Boardman D, Johnson ES. A randomized, pragmatic, pharmacist-led intervention reduced opioids following orthopedic surgery. *The American Journal of Managed Care*. 2018 Nov;24(11):515-21.

# Barriers and needs

Although Oregon PDMP system use continues to increase, registration and use are not yet optimal. Program evaluation data indicate that prescribers want the PDMP to fit seamlessly into their clinical workflow. Integration of the PDMP with other health data systems has the potential to have a large impact on safe prescribing of controlled substances.

- **Implementation of 2017 HB 3440:** PDMP staff will continue to support the work of the Prescribing Practices Review Subcommittee as it refines metrics and reacts to changes in the overdose epidemic.
- **PDMP integration (2016 HB 4124 implementation):** Integration of PDMP into health information technology platforms such as EDIE, electronic health records and pharmacy information systems is ongoing. Integration must proceed in a way that is useful to prescribers and pharmacists, expands access, and conforms to data security and privacy standards.
- **Interstate data sharing:** The PDMP will continue to develop agreements with other states that have similar standards for privacy and security. Priority states for data sharing agreements will be Washington and California.
- **Expanded access for supervisory role types:** System users who provide clinical oversight have requested new types of summary reports to support this use case. PDMP staff have reached out to Appriss and will continue to work toward fulfilling this request.
- **Continuous data quality improvement:** Initiatives to ensure data quality in PDMP user profile data, query audit logs and prescription data are ongoing.

# Discussion

The Oregon PDMP is an important tool to reduce the burden of opioid overdose in the population, which is a priority in the State Health Improvement Plan. In 2015, the Oregon Health Authority chartered an opioid initiative that integrated and coordinated efforts at the state and local level to improve access to opioid use disorder treatment, improve pain management, provide prescribing guidance, and establish metrics to measure progress. The rate of death from opioid overdose and prescriber registration with the PDMP are key accountability metrics in Oregon's movement toward public health modernization. The PDMP is a critical component of the overall strategy to reduce high-risk opioid prescribing and provide data for monitoring, evaluation and research.

The Oregon PDMP increased system use in 2018 to nearly 1.6 million unique patient queries by health care providers, pharmacists and their delegates. Supported by funding from the CDC PFS grant, local partners focused enrollment efforts on frequent prescribers. Integrated queries by clinicians and pharmacists now make up a considerable share of system utilization. This reflects the ease with which integrated query fits into the clinical practice workflow. Efforts to increase access and system use will continue to be a high priority.

The PDMP made significant improvements to the system in 2018, continuing to work toward greater data sharing with other states and supporting health systems' integration of the PDMP into their electronic health record systems.

Evaluation, research and quality assurance efforts are important to program operations. Work conducted with partners illustrates how PDMP data use can support clinical practice. The PDMP will continue to work with partners to leverage prescription data to improve Oregonians' health.





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We accept all relay calls or you can dial 711.