OREGON
**HEALTH**
AUTHORITY

**Public Health Division**
Injury and Violence Prevention Program

2022

# Prescription Drug Monitoring Program Annual Report to the Advisory Commission

# Contents

# Acknowledgment of thanks

# Executive summary

The Oregon Prescription Drug Monitoring Program (PDMP), operated by the Oregon Health Authority (OHA), collects controlled substance prescriptions dispensed in Oregon. The program supports prescribers and pharmacists in clinical decision-making, assists public health surveillance, and informs prevention and policy initiatives.

The 2022 Oregon Prescription Drug Monitoring Program (PDMP) Annual Report provides a summary of key activities, performance metrics, and program developments supporting Oregon's ongoing efforts to reduce prescription drug misuse and promote safe prescribing practices. There was a pause on developing the 2022 and 2023 reports while utilization data was audited, evaluated, and issues were resolved. The utilization data is comprised of data from multiple sources and from multiple types of access including interstate data sharing, Electronic Health Record (EHR) integrated access, emergency department integrated access, and web portal. The reports will resume their annual publication in 2026. PDMP staff presented quarterly a reduced version of this report to the PDMP Advisory Commission to keep them informed of system performance and relevant trends.

## Key changes and trends

The program implemented two significant legislative changes in 2022, an increase in provider fees to support the program (HB 2074) and the removal of the need for a prescription to receive pseudoephedrine (HB 2648).

The program continued to promote enhanced data access by sharing with six nearby states and executing a data sharing Memorandum of Understanding (MOU) with California. The program also continued the EHR integration initiative which embeds the PDMP into the providers electronic clinical workflow.

The system received over 7 million queries from healthcare providers for prescription data, with approximately 80% of request originating from integration electronic health record systems.

The program maintained 27,000 active user accounts with 97% of the top 4,000 prescribers registered with the program and ensured pharmacies submitted required data to the program. These submissions were 99% accurate and 95% on-time.

Program data was used for several authorized purposes outside of providing healthcare. The data were used by outside research partners from Oregon Health and Science University (OHSU), Oregon State University (OSU), and by public health

partners. Data was also used by the Prescribing Practice Review Subcommittee to identify potential risky prescribing and provide targeted outreach with over 900 educational letters sent to providers.

Funding from the Harold Rogers grant supported the program until September of 2022, the program is working toward long terms stability through the provider fee increase and potential federal funding opportunities.

# Conclusion

The Oregon PDMP remains a cornerstone of the state's strategy to prevent opioid misuse and support data-driven health care. Strong provider participation, high data integrity, and expanding integration continue to enhance the program's value as a public health and clinical tool.

# Introduction

## Background

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 PDMP serves secondary functions aside from providing access to prescribers to improve care of their patients. The PDMP is a robust data source used for specific authorized purposes.

**Public health research:** PDMP staff routinely work with researchers to leverage the data for clinical and public health research. This includes evaluating the researcher's proposal, preparing the data to protect provider and patient privacy, and securely delivering the data to the researchers.

**Prescribing and dispensing oversight:** Medical, dental, and pharmacy directors are authorized to access prescribing and dispensing data on those they oversee to ensure qualify healthcare is delivered. This access can be accomplished through the PDMP secure web portal or by working directly with PDMP staff to receive this data.

**Regulatory oversight:** PDMP staff routinely work with licensing boards and law enforcement agencies to manage their requests for PDMP information. While licensing boards may request specific PDMP information to assist with active investigations, they are not able to access the PDMP to determine who to investigate. Law enforcement agencies are only able to obtain PDMP information through a court order, or in the case of the DEA, an administrative subpoena.

This report fulfills the requirement of Oregon Revised Statute 431A.855(3). It is intended to provide the PDMP Advisory Commission information and performance metrics relevant to the operation of the program, including system registration, utilization, status on key objectives and evaluation activities.

# Legislative changes

In 2022, Oregon implemented significant legislative changes affecting the PDMP, that enhanced program funding and refined tracking of pseudoephedrine sales.

House Bill 2074, passed during the 2021 legislative session and effective September 25, 2021, increased the annual fee that healthcare providers pay to support the Oregon PDMP from $25 to $35. This marked the first fee increase since the PDMP's creation in 2009. The additional revenue, deposited into the Oregon Health Authority fund, strengthened the program's operational budget and helped sustain system improvements and public health initiatives.

House Bill 2648, passed in 2021 and effective January 1, 2022, revised regulations for pseudoephedrine-containing medications. Pharmacy technicians and pharmacists may now sell these products over the counter to individuals aged 18 and older, provided a valid photo ID is presented. Sales must be tracked through a real-time electronic system separate from the PDMP. If pseudoephedrine is dispensed via prescription, however, that transaction does remain recorded in the PDMP. This two-step tracking ensures that non-prescription pseudoephedrine use is monitored without burdening patients with the requirement to obtain a prescription.

The PDMP Advisory Commission was consulted and advised the OHA to support a fee increase to improve the sustainability of the program.

## Reporting compliance and data quality

In 2022, all Oregon pharmacies mandated to report data to the PDMP did so, with an error rate of less than 1% for data submitted. Statute requires pharmacies to submit all prescription information within 72 hours; 95% of pharmacies complied. The remaining 5% were brought into compliance within 30 days.

PDMP staff continued ongoing data quality improvement initiatives to improve the accuracy of prescriber, prescription and query audit trail data, in addition to regular quality assurance activities.

PDMP staff worked with the licensing boards to ensure registration compliance providing regular updates to the boards who worked with their licensees to promote prompt registration. These efforts produced a positive response by increasing registration rates.

# Oregon Secretary of State PDMP audit

In June 2022, the office of the Oregon Secretary of State released a follow up report related to the 2018 audit of the Oregon PDMP. In this [report](#) they evaluated progress implementing the original audit's 12 recommendations that were made to the PDMP in December 2018.

The follow-up highlighted that the Oregon PDMP had implemented the following recommendations:

- Maintain an ongoing partnership with health licensing boards to target outreach efforts to get all required prescribers registered with the PDMP.
- Provide guidance, including examples, to prescribers on ways to integrate accessing the PDMP database into their daily workflow.
- Verify practitioner specialty information with the respective 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.

The recommendations listed as partially implemented were:

- 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.
- Expand statutes to allow the PDMP to conduct and share analyses on prescription data including analyzing prescriber prescription practices and making prescriber report cards available.
- Allow for additional information to be collected by the PDMP including: schedule V controlled substances, expanded data collection from beyond retail pharmacy locations, veterinary prescriptions, diagnosis code, and method of payment.

The recommendations not implemented were:

- Develop a process for, and facilitation of sharing of, data between PDMP and Medicaid to help ensure completeness of PDMP prescription history and to allow Medicaid to better monitor the prescription behavior of its clients.
- Seek legislative action to address the issue of prescribers not registered with the PDMP as required and pharmacies not submitting corrected data within the statutory requirements.
- Provide further authority to the Clinical Review Subcommittee to require the justification of practices deemed concerning and allowing 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.

Those recommendations that were partially implemented or not implemented were noted by the auditors to be due to the requirement of legislatively initiated statutory changes which did not occur in the period between December 2018 and June 2022. Overall, the audit found the efforts of PDMP to have been significant and proactive within the scope of the programs existing legislation and technical abilities.

The PDMP Advisory Commission reviewed this follow-up audit in their October meeting discussed those recommendations not yet implemented, in part or full, and discussed feasibility of expanded collection of data to include specific schedule V controlled substances. There was considerable discussion on the concept of mandatory use of the PDMP and the Advisory Commission held a neutral position on this matter. The Advisory Commission continued to support PDMP privacy safeguards.
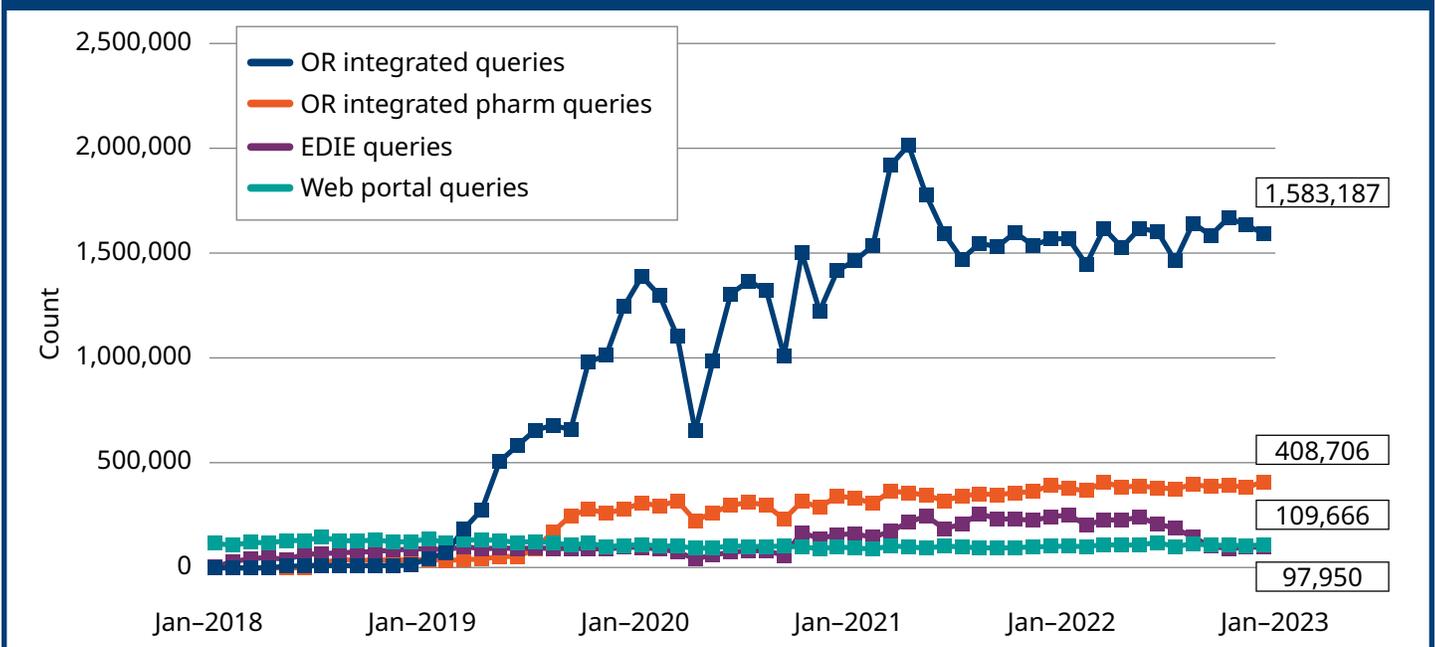
# PDMP utilization

Practitioners have two options for querying the PDMP: the AWARxE 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 of the PDMP within clinical workflows and remove the need for providers to log into the web-portal and manually search for patients.

- Utilization of the PDMP through EHR integration continued to increase in 2022, with a 6.9% increase compared to 2021.

- Utilization of the PDMP through the web portal decreased slightly but continues to be a frequently utilized tool. This may indicate that reliance on delegates, who are not eligible to access PDMP data through EHR integration, remains a common practice in Oregon.

- The PDMP received 7,643,687 unique system queries in 2022.

- With the exception of pharmacists, all license types decreased utilization of the web portal and increased use of PDMP integration.

- Emergency Department Information Exchange (EDIE) queries originate within Oregon emergency departments that participate in the Emergency Department Information Exchange network and have automated queries to be included in an alert format to ED providers. The frequency of these queries dipped in the 4th quarter of 2022.

In 2022, the PDMP team continued its collaboration with HIT Commons to integrate the PDMP into the electronic health records of Oregon providers.

## Figure 1: PDMP Query trends by month by query type, 2018–2022



Legend:
- OR integrated queries
- OR integrated pharm queries
- EDIE queries
- Web portal queries

Values at right: 1,583,187; 408,706; 109,666; 97,950

# PDMP system changes

## Peer comparison reports

Peer comparison reports are a leading PDMP best practice nationwide. These reports allow prescribers to view their prescribing compared to other prescribers within their same specialty of practice. This feature became operative in the first quarter of 2021. All prescribers who wrote a controlled substance prescription the previous quarter received an email prompting them to view the new report online.

Oregon deployed a custom version of the peer comparison report rather than using the standard version produced by the PDMP system vendor Bamboo Health. The Oregon version was created in consultation with the Prescribing Practice Review Subcommittee and focused on four areas of potential risky prescribing. Each report shows the system user's prescribing practices compared to the 50th percentile and 90th percentile prescribing of their specialty.

In 2022, these reports were prepared each quarter and made available to providers within their PDMP profiles. When the reports were ready, each system user received an email to inform them that they were able to assess their report for self-assessing their prescribing.

An example of the report is provided next page.

PRESCRIBER NAME:    XX        SPECIALTY:         FAMILY MEDICINE
DEA #:        XXXX        REPORTING PERIOD:   01/2018 -12/2019

## Oregon Prescriber Comparison Report

The purpose of this report is to help you assess your prescribing practices compared to those of your peers. This report is not punitive in any way. You are receiving this report from the Prescribing Practices Review Subcommittee of the Oregon Prescription Drug Monitoring Program Advisory Commission because you have prescribed at least one controlled substance prescription in the reporting period. Metrics are selected by the Subcommittee and aligned with CDC Guidelines and compare your prescribing to all prescribers within your specialty as listed in the PDMP system. Please review the report and resources listed on the back of this sheet.
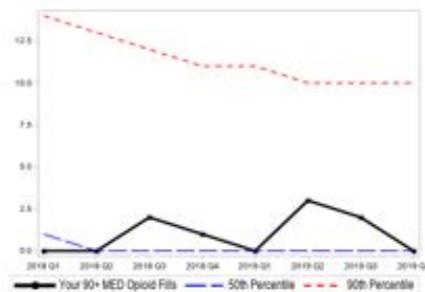


### Number of High Dose (>90 MME) Fills

Number of opioid fills quarterly with a morphine milligram equivalent dose >90.
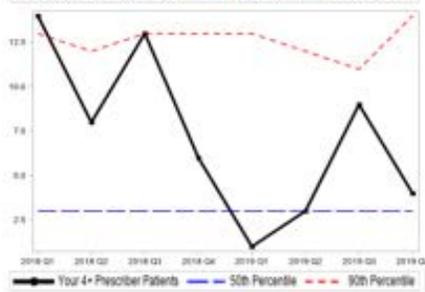


### Number of Multiple Prescriber (4+) Patients

Number of patients who received an opioid fill from four or more prescribers in the previous 6 months. A patient meeting the threshold is attributed to each prescriber with a fill in the preceding 2 quarters.



### Number of Acute Opioid Fills >42 Doses

Number of opioid fills with greater than 42 doses to a patient without an opioid fill in the previous four quarters.
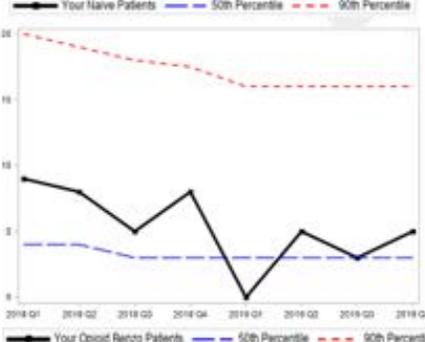


### Number of Patients with an Opioid and a Benzodiazepine

Number of patients prescribed both an opioid and a benzodiazepine in the same month. A patient meeting the threshold is attributed to each prescriber that prescribed an opioid or benzodiazepine fill to that patient.

# Health information technology integration

In 2022, PDMP staff continued to implement the integration of PDMP data into electronic health records. The Oregon Health Authority has maintained a public-private partnership with the Oregon Health Leadership Council called the Oregon Health IT Commons. This group has worked closely with PDMP staff to implement the PDMP integration project and provided a statewide licensure agreement for low-cost integration to Oregon health care entities since July 2018. This has removed barriers to integration by connecting entities across the state to the PDMP under a single umbrella agreement.

In 2022, the initiative had broad acceptance and deep penetration into electronic health records, with approximately 80% of all PDMP utilization originating from within integrated EHR systems. However, this implementation is not uniform across all specialties and practice types; in the future this initiative will focus on recruiting smaller entities, rural entities, and behavioral health practices.

# 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. The Oregon PDMP participates in two data sharing hubs: PMPi and RxCheck.

On the recommendation of the PDMP Advisory Commission, the Oregon PDMP is only pursuing integration with western region states. This approach differs from many other states, which are attempting to secure sharing with all other PDMP partners nationally. Oregon's decision to focus more locally is based on an evaluation of early data sharing with bordering vs distant states, which demonstrated that there was virtually no data returned from queries sent to non-bordering states.

- At the close of 2022, Oregon was sharing data with six states: Idaho, Washington, Arizona, Nevada, Montana, and Texas.

- Oregon and California executed a data sharing MOU in 2022, which is a big step forward toward PDMP data availability for each state's providers. Significant business and technology processes still need to be developed to accommodate California's unique requirements and allow data sharing to go live between the two states.

- Use of the PMPi data sharing hub by Oregon prescribers is predominantly directed toward query of PDMPs in nearby states (Idaho, Washington).

Ongoing efforts will focus on developing data sharing agreements with the neighboring states of Washington and California.

# Operations and business processes

The PDMP completed its eleventh full year of operation in 2022. The program routinely monitors metrics to evaluate operations and improve business processes. Quarterly business operation and prescribing trend reports are available online through the OHA PDMP web page at: https://www.oregon.gov/oha/ph/preventionwellness/safeliving/pdmp.

## Pharmacy reporting compliance

Retail pharmacies licensed by the Oregon Board of Pharmacy are required to report data on all prescriptions for Schedule 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 2022, all pharmacies required to report controlled substance prescription data submitted data to the PDMP. During 2022, 95% of pharmacies were in compliance, reporting dispensed prescriptions within 72 hours as required by law. The remaining 5% were generally able to be compliant within 30 days.

## Data quality

Pharmacies report data to the PDMP within 72 hours of prescription fill. OHA's software vendor, Bamboo 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 2022, the PDMP continued to work with reporting pharmacies to improve responses to error 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 was the likely cause of the most common pharmacy data errors, which included unknown or expired unique DEA prescriber identification numbers or invalid ZIP codes. Overall, pharmacies had a less than 1% rate of errors for all data submitted in 2022.

PDMP staff continuously worked to improve data quality and keep user account information current in 2022. In compliance with PDMP statute, accounts were removed when staff could not reach the account holder to update information.

# 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.

In 2022, all prescribers licensed in Oregon and holding a DEA number associated with a facility in Oregon were required to register for the PDMP within 30 days of meeting the registration mandate requirements. At the close of 2022, there were 27,356 PDMP accounts. (Table 1). PDMP staff worked with the Oregon Medical Board, the largest licensee group, to share when a licensee's status retired, expired, or was no longer practicing. This ensured that PDMP staff could inactivate access in a timely manner.

**Table 1: PDMP registered system accounts by licensing board, Oregon, 2022.**

| License | Accounts | % Change from 2021 |
|---|---|---|
| Oregon Medical Board | 14,607 | 1.7% |
| Board of Nursing | 3,680 | 3.5% |
| Board of Pharmacy | 2,965 | -5.2% |
| Delegates | 2,710 | -3.5% |
| Board of Dentistry | 2,383 | -5.7% |
| Board of Naturopathic Medicine | 516 | -5.8% |
| Board of Optometry | 258 | -0.4% |
| **Total** | **27,356** | **0.2%** |

**Note:** Accounts are deduplicated by user DEA number.

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.

**Table 2: PDMP active users by user group: Oregon, 2021–2022.**

| License | Total user accounts | % change from 2021 | Active web users | % change from 2021 | Active gateway report users | % change from 2021 |
|---|---|---|---|---|---|---|
| MD/PA/DO | 14,092 | 6.0% | 2,943 | -4.0% | 6,007 | 20.7% |
| NP/CNS-PP | 3,478 | 4.1% | 1,608 | 6.0% | 1,480 | 20.3% |
| RPh | 2,954 | -3.7% | 1,536 | -13.0% | 921 | -0.1% |
| Delegates | 2,703 | -3.5% | 2,539 | -8.5% | N/A | N/A |
| DDS/DMD | 2,363 | -5.0% | 735 | -3.8% | 216 | 38.5% |
| ND | 512 | -2.7% | 264 | 3.1% | 92 | 10.8% |
| **Total** | **27,356** | **0.2%** | **9,670** | **-4.7%** | **9,042** | **18.0%** |

**Note:** User accounts number provided by unique DEA number, but users may be associated with multiple DEA numbers

- Overall accounts slightly increased largely driven by increases in our two largest user groups, MD/PA/DO and NP/CNS-PP disciplines.
- Web activity remains mixed with some user groups like NP/CNS-PP increasing activity and most decreasing.
- Users viewing gateway reports increased in almost every user group with a large 18% increase in overall users viewing gateway reports.

# Frequent prescribers

PDMP staff collaborated with healthcare licensing boards to conduct targeted outreach to frequent prescribers to ensure they are registered with the PDMP. While 83.9% of all Oregon licensed prescribers were enrolled in the PDMP at the end of 2022, 97.6% of the 4,000 most frequent prescribers were enrolled. This is a crucial metric, as it is important that the providers who prescribe most to Oregonians have access to the PDMP. Although OHA PDMP staff do not have regulatory authority over providers to compel registration, PDMP staff worked diligently to ensure all providers were informed of the PDMP and to ensure there were no unnecessary barriers hindering registration and use.

# Interactive data dashboard

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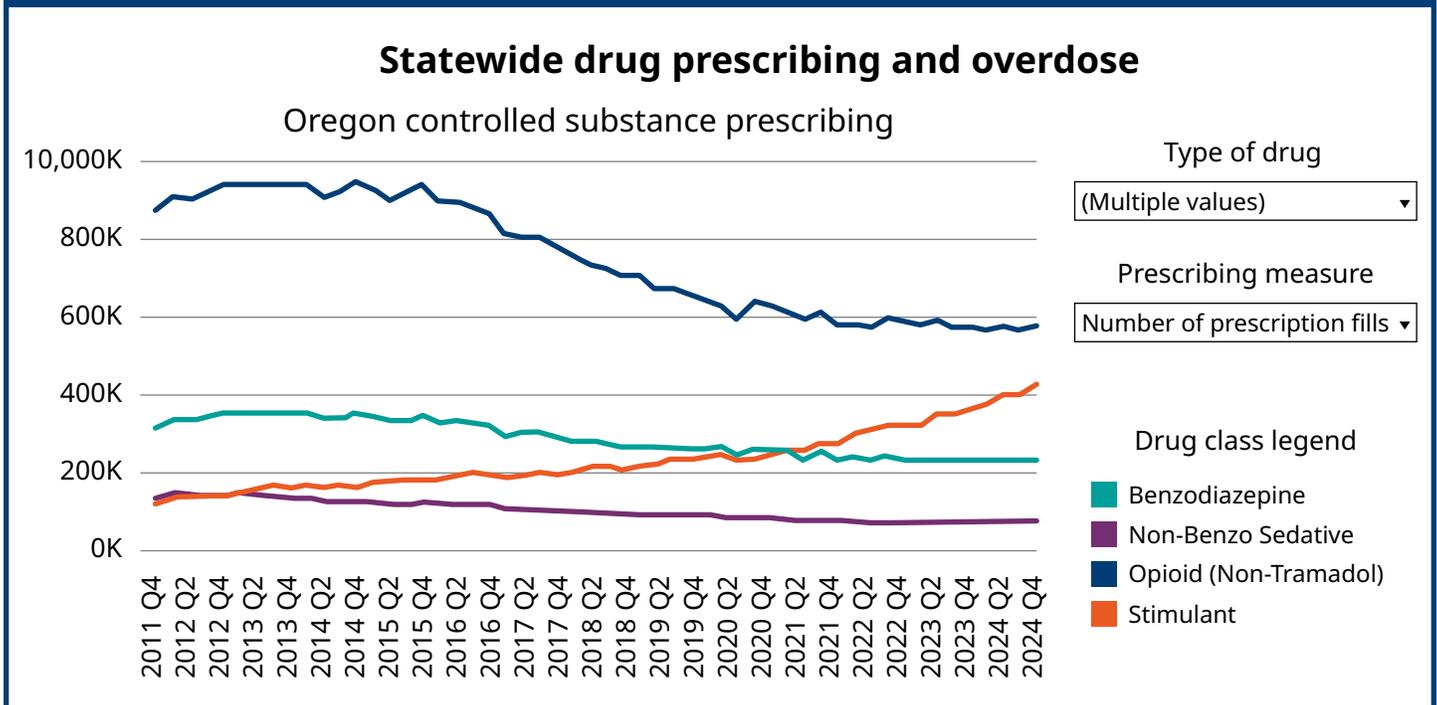
organizations promote PDMP use, implement prescribing guidelines, promote non-opioid pain management strategies, educate prescribers and the public, and improve access to addiction treatment services.

The Oregon Prescribing 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 data.

Included are 18 different figures with over 8,000 different measure views containing a total of over 500,000 quarterly data points. Measures in the figures include prescribing trends for different drug classes by count and rate both for individuals receiving drug and drugs themselves. Also included are trends in prescribing measures known to increase risk of overdose. Users may interact with the figures to filter by drug type, geography, time period, and/or patient age group to look at the trends of interest. The dashboard was updated twice in 2022 after not being updated for two years due to the COVID pandemic and PDMP staffing changes.

The dashboard is available at: https://www.oregon.gov/oha/ph/PreventionWellness/SubstanceUse/Opioids/Pages/data.aspx

**Figure 2: Example view of PDMP interactive dashboard**

# Data requests

PDMP staff responded to data requests from a variety of sources entitled to timely access to PDMP data in 2022: 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 2022 within the statutorily required timeframe of 10 business days. PDMP provided a total of 42 patient-requested reports in 2022.

**Table 2: PDMP active users by user group: Oregon, 2021–2022.**

| Request Type | 2021 | 2022 |
|---|---|---|
| Patient records | 52 | 42 |
| Healthcare board | 240 | 213 |
| Law enforcement | 24 | 35 |
| **Total** | **318** | **290** |

## 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 207 data requests from regulatory boards in 2018. Requests by regulatory boards increased between 2021 and 2022.

**Table 4: Regulatory board report requests by discipline, Oregon, 2018–2022.**

| Licensing Board | 2018 | 2019 | 2020 | 2021 | 2022 |
|---|---|---|---|---|---|
| Oregon Medical Board | 207 | 200 | 187 | 132 | 121 |
| Board of Nursing | 100 | 80 | 81 | 83 | 53 |
| Board of Naturopathic Medicine | 64 | 28 | 14 | 11 | 18 |
| Board of Dentistry | 6 | 11 | 5 | 9 | 7 |
| Board of Pharmacy | 4 | 27 | 16 | 5 | 13 |
| Emergency Medical Services | 1 | 1 | 0 | 0 | 1 |
| **Total** | **382** | **347** | **303** | **240** | **213** |

# 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. 20 law enforcement requests were fulfilled in 2022.

# 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.

In 2022, the Oregon PDMP Advisory Commission (AC) met three times to fulfill its mission of advising OHA on the administration of the PDMP. Each meeting addressed core recurring items such as reviewing prescribing trends, discussing program metrics, and consulting on strategic initiatives designed to support the program's long-term effectiveness.

At the April 2022 meeting the AC discussed updates on key initiatives, including efforts to secure certification from the US Centers for Medicare and Medicaid Services and preparations for an upcoming Request for Proposals (RFP) to select future vendors. An OHA representative also briefed the Commission on funds available to Oregon from the national opioid settlement; although those funds were not allocated to the PDMP itself, commissioners—recognized as subject matter experts—benefited from understanding how these resources might support broader public health and prevention work in Oregon. In July 2022 the AC continued its review of trends and metrics and held an in-depth discussion about the Oregon Secretary of State's PDMP [audit follow-up report](#). Members expressed satisfaction with OHA's substantial progress toward addressing recommendations from the original 2018 audit. At the October 2022 meeting the agenda was more foundational; after the standard review of prescribing trends, the PDMP program coordinator presented a comprehensive overview of the program's history and mission, which proved especially valuable to newer commission members.

## Prescription Monitoring Program Prescribing Practices Review Subcommittee

2017 House Bill 3440 established a Prescription Monitoring Program Prescribing Practices Review Subcommittee tasked with developing prescribing criteria to identify prescribers for targeted education efforts around prescribing guidelines. This education is accomplished by sending a physical letter to selected providers, this letter explains the reason they were selected and encourages self-assessment of prescribing practices using included tools and resources. The letters are not punitive, and the identity of recipients is strictly protected.

In 2022, the PDMP Advisory Commission Subcommittee convened twice during the year, providing a focused forum to examine prescribing trends and refine analytic approaches to better identify and reduce potential patient harm.

At the July 2022 meeting, the PDMP epidemiologist presented an overview of current trends across all high-risk prescribing indicators requested by the subcommittee. This included measures such as high-dose opioid prescribing, concurrent opioid and benzodiazepine use, and other patterns known to elevate risk of overdose. Following this presentation, subcommittee members engaged in discussion about additional analysis that would aid them in making further recommendations. They recommended a deeper analysis of coprescribing trends, specifically suggesting the inclusion of non-benzodiazepine sedatives in the concurrent use measure. Additionally, they advised adjusting the timeframe used to define concurrent prescriptions, proposing the addition of a small buffer period to better capture clinically relevant overlap that might be missed under a stricter definition.

During the October 2022 meeting, the epidemiologist returned with updated analyses reflecting these recommendations. The data demonstrated the impact of including non-benzodiazepine sedatives in the concurrent prescribing measure, providing a more comprehensive view of this risky co-prescribing practice. After reviewing the findings, the subcommittee formally recommended expanding the high-risk prescribing definition to include these non-benzodiazepine sedatives. This change aimed to capture a broader range of sedative medications that, when used with opioids, could increase the risk of adverse outcomes. Through these activities, the subcommittee continued to be responsive to evolving prescribing patterns and to support safer prescribing practices across Oregon.

The PDMP staff prepared physical letters to be sent to providers that met high-risk prescribing criteria each quarter of 2022. Per the subcommittee's instructions, no provider received a letter two quarters in a row even if they qualified and received a maximum of two letters per year. The number of letters sent in 2022 is shown in the table below:

**Table 5: Number of providers receiving subcommittee letters, 2022.**

| 2022 | Number of letters sent |
|---|---|
| Q1 – January through March | 217 |
| Q2 – April through June | 199 |
| Q3 – July through September | 236 |
| Q4 – October through December | 261 |

# Partnerships

In 2022 the Oregon PDMP worked with governmental partners inside and outside of OHA. PDMP staff collaborated with counties, Coordinated Care Organizations and OHA internal workgroups and provided subject matter expertise, technical assistance and de-identified PDMP prescription data.

County officials, local public health, and regional community partners used PDMP data to highlight prescribing measures, hospitalizations, overdose fatalities and other measures broken out by various demographics (age, county, etc.) in reports, grant applications and presentations. While the interactive data dashboards streamlined this collaboration, PDMP staff also responded to a variety of direct questions and data requests.

The PDMP staff regularly collaborated with each health licensing board to identify unregistered providers for targeted outreach. This practice has been effective in increasing compliance with the registration mandate.

The most frequent PDMP collaboration partnership was with and HIT Commons. This partnership has been central to the success of the roll out of the enhancement.

## Research projects

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. During 2022, 3 formal data requests for new projects were received and 1 data use agreement was issued. Data for 4 projects were prepared by PDMP analysts and provided to researchers for analysis, in accordance with project-specific specifications in signed data use agreements. Some notable publications in 2022 using PDMP data included:

1. S. E. Hallvik et al., "Patient outcomes after opioid dose reduction among patients with chronic opioid therapy," *Pain*, vol. 163, no. 1, pp. 83–90, Jan. 2022, 10.1097/j. pain.0000000000002298.

2. T. A. Klein, J. Geddes, and D. Hartung, "The Geographic Impact of Buprenorphine Expansion to Nurse Practitioner Prescribers in Oregon," *The Journal of Rural Health*, vol. 38, no. 1, pp. 112–119, Jan. 2022, 10.1111/jrh.12538.

3. T. A. Klein, D. Hartung, and S. Markwardt, "The impact of CARA mandates on nurse practitioner controlled substance prescribing in Oregon: a cohort study," *Subst Abuse Treat Prev Policy*, vol. 17, no. 1, p. 5, Dec. 2022, 10.1186/s13011-022-00431-z.

4.  S. G. Weiner et al., "Opioid-related overdose and chronic use following an initial prescription of hydrocodone versus oxycodone," *PLoS ONE*, vol. 17, no. 4, p. e0266561, Apr. 2022, [10.1371/journal.pone.0266561](10.1371/journal.pone.0266561).
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# PDMP funding

Funding sources for the Oregon PDMP vary by year. In 2022 the PDMP was funded through the following sources:

- PDMP Provider fees: Each healthcare licensee in Oregon paid $35 annually to their licensing board to support the operation of the PDMP. These feeds were transferred to OHA from the boards minus a 10% administrative fee.

- HITECH Grant: This funding was specific to the establishment of the HIT integration and provided matched federal funding from CMS. This funding ended September 2022.

- Harold Rogers grant: the BJA (bureau of justice affairs) provides this funding source to support projects related to improving the PDMP accessibility and usability. This funding was available to the Oregon PDMP for all of 2022.

With the end of HITECH funding, which provided 90/10 matched funds for the establishment of the EHR integration, the PDMP plans to seek new funding through CMS to provide maintenance funds for this function.

# Barriers and needs

## Issues on the horizon

- **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 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 Bamboo 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.

- **Stable funding:** Due to increased expenses related to personnel, the Bamboo vendor contract and EHR integration, the program is in need of additional funding to remain sustainable long term. In addition to the fee increase from $25 to $35 annually, the program will continue to search for grant funding and is pursue Medicaid match dollars from CMS.

# Discussion

The Oregon PDMP continues to be an important tool to reduce the burden of opioid overdose in the population. It remains a critical component of the overall strategy to reduce high-risk opioid prescribing and provide data for monitoring, evaluation and research.

The Oregon PDMP is established as a key tool for Oregon prescribers and pharmacists. Health care providers, pharmacists and their delegates continue to submit millions of unique patient queries each year. Integrated queries by clinicians and pharmacists made up a considerable share of system utilization in 2022, and the volume of use demonstrates the efficacy of integrating the PDMP into electronic clinical workflows at the point of need. Efforts to increase access and system use will continue to be a high priority.

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 the health and safety of people in Oregon and across the nation.

# Appendix

## 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

MOU:        Memorandum of understanding

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

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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