MARYLAND
Department of Health

*Larry Hogan, Governor · Boyd K. Rutherford, Lt. Governor · Robert R. Neall, Secretary*

January 10, 2019

The Honorable Larry Hogan
Governor
100 State Circle
Annapolis, MD 21401-1925

The Honorable Thomas V. Mike Miller, Jr.
President of the Senate
H-107 State House
100 State Circle
Annapolis, MD 21401-1925

The Honorable Michael E. Busch
Speaker of the House of Delegates
H-101 State House
100 State Circle
Annapolis, MD 21401-1925

**Re: Health-General § 21–2A–05(f)(3)—Annual Prescription Drug Monitoring Program Report**

Dear Governor Hogan, President Miller, and Speaker Busch:

Pursuant to Health-General § 21–2A–05(f)(3), Annual Prescription Drug Monitoring Program Report, the Maryland Department of Health respectfully submits the attached report detailing the status of the Prescription Drug Monitoring Program on behalf of the Advisory Board on Prescription Drug Monitoring.

If you have any questions regarding this report, please contact Deputy Chief of Staff Webster Ye at (410) 767–6480 or webster.ye@maryland.gov.

Sincerely,

Robert R. Neall
Secretary

cc: Sarah Albert, Department of Legislative Services (MSAR # 10789)

## TABLE OF CONTENTS

## INTRODUCTION

Title 21, Subtitle 2A, of the Health-General Article (enacted by Senate Bill 883, Chapter 166 of the Acts of 2011) requires that the Maryland Department of Health (Department) create a Prescription Drug Monitoring Program (PDMP or Program) to reduce the misuse, abuse, and diversion of prescription drugs throughout the state. The duties of the PDMP, as outlined in the PDMP law, include:

- monitoring dispensed prescriptions that contain controlled dangerous substances (CDS)
- maintaining an electronic database of CDS prescription information
- making these data available to statutorily-defined groups of individuals and entities responsible for ensuring the health and welfare of patients and the lawful use of CDS

Section 21–2A–05 of the Health-General Article provides for the creation of the Advisory Board on Prescription Drug Monitoring (Board). The Board is composed of a diverse array of stakeholders. The Board has met regularly since the membership was first appointed in fall 2011, and has provided feedback and recommendations on several topics, including regulations, information technology (IT), interstate data sharing and interoperability, program evaluation, funding, and educational initiatives. The current Board membership is listed in the Appendix.

Section 21–2A–05(f)(3) of the Health-General Article requires that the Board provide annually to the Governor and the General Assembly a report that includes:

i. the number of prescribers and prescriber delegates registered with and using the Program
ii. the number of pharmacists and pharmacist delegates registered with and using the Program
iii. the number of disclosures made to federal law enforcement agencies or state or local law enforcement agencies
iv. an analysis of the impact on the Program on patient access to pharmaceutical care and on curbing prescription drug diversion in the state
v. any recommendation related to modification or continuation of the Program

## CLINICAL USER REGISTRATION AND ACCESS OF PDMP DATA

The first two requirements of the report under §§ 21–2A–05(f)(3)(i)–(ii) rely on registration and user statistics: "[t]he number of prescribers and prescriber delegates registered with and using the Program" and "[t]he number of pharmacists and pharmacist delegates registered with and using the Program."

As the largest group of end users, Maryland clinicians are key PDMP stakeholders. The Chesapeake Regional Information System for our Patients (CRISP), the state-designated health information exchange (HIE), and the Department's PDMP IT provider provides registration and access services for healthcare providers to view PDMP data. In 2018, significant enhancements to clinical user access to PDMP data ensured that the use mandate in effect July 1, 2018 would not interrupt use of PDMP data. The program enhancements, funded by a combination of federal grant and state general funds, were necessary to implement legislative changes under House Bill (HB) 437 (Chapter 147, 2016). To support clinical user adoption of the use mandate, the Program is pursuing a dual approach of bringing PDMP data as close as possible into the clinician's workflow through electronic integrations with other clinical software (*e.g.*, electronic health records) and use of delegates. Delegates are licensed or unlicensed staff eligible to pull PDMP data on behalf of the prescriber or pharmacist.

Under HB 437 (Chapter 147, 2016), all CDS prescribers and pharmacists licensed to dispense CDS in Maryland must be registered with the PDMP by July 1, 2017, and effective Feb. 15, 2018, a prescriber must be PDMP registered before being issued a new or renewal CDS registration by the Office of Controlled Substances Administration (OCSA). Prescribers must renew their CDS registration every three years. Delegates, for both prescribers and pharmacists, are not subject to a registration mandate. As of Aug. 31, 2018, more than 88 percent of the individuals (86.61 percent of prescribers and 90.84 percent of pharmacists) have registered as required by the mandate.

**Table 1** shows the total number of registered accounts, by user type. Of those prescribers and pharmacists subject to the registration mandate, 86.61 percent (42,792/48,830) prescribers and 90.84 percent (10,768/11,854) pharmacists are registered as of Aug. 31, 2018. **Table 2** shows the monthly number of total registrants across all user categories between January and August 2018, as well as the number of new registrants each month. There was a marked increase of 2,296 prescribers and 1,341 prescriber delegates registering in June 2018, right before the use mandate went into effect. **Table 3** shows the number of registered prescribers and pharmacists by jurisdiction of the registrant.

The use mandate, impacting both prescribers and pharmacists, went into effect July 1, 2018. Prescribers and pharmacists are required to query the PDMP in certain prescribing and dispensing situations. Delegates, for both prescribers and pharmacists, are not subject to the use mandate. **Table 4** shows the monthly total clinical PDMP queries across all user categories between January and August 2018. Query volume trended up over the calendar year, due to increases in the number of registrants in CRISP and expansion of integration efforts.

**Table 1**. Registered Clinical PDMP Users.

| Type of User | # of Registered Users* | # Individuals subject to Registration Mandate | % of Individuals who are PDMP Registered |
|---|---|---|---|
| **Prescriber** | 42,792 | 48,830 | 86.61% |
| **Pharmacist** | 10,768 | 11,854 | 90.84% |
| **Total Subject to Mandate** | | | |
| **Prescriber Delegates** | 8,007 | N/A | N/A |
| **Pharmacist Delegates** | 1,023 | N/A | N/A |

* Number of Registered Users is current as of Aug. 31, 2018.

**Table 2**.Change in Number of Registrants by month, all user categories, Jan. – Aug. 2018.

| Month | Number of Registered Users | Prescriber | Prescriber Delegate | Pharmacist | Pharmacist Delegate | # New Registered Users each month |
|---|---|---|---|---|---|---|
| Jan. 2018 | 57,488 | 39,705 | 5,907 | 10,880 | 996 | 386 |
| Feb. 2018 | 57,959 | 40,090 | 5,963 | 10,906 | 1,000 | 471 |
| Mar. 2018 | 59,196 | 40,857 | 6,365 | 10,970 | 1,004 | 1,237 |
| Apr. 2018 | 59,622 | 41,214 | 6,405 | 10,996 | 1,007 | 426 |
| May 2018 | 60,474 | 41,945 | 6,495 | 11,025 | 1,009 | 852 |
| June 2018 | 63,724 | 43,791* | 7,836* | 11,084 | 1,013 | 3,700 |
| July 2018 | 64,656 | 44,541 | 7,936 | 11,162 | 1,017 | 931 |
| Aug. 2018 | 65,221 | 44,968 | 8,007 | 11,223 | 1,023 | 565 |

**Table 3**. Prescriber and pharmacist registration rates, by local jurisdiction, as of Aug. 31, 2018.

| **Jurisdiction*** | **Prescriber Registration Rate** (# registered active CDS prescribers/# active CDS prescribers) | **Pharmacist Registration Rate** (# registered licensed pharmacists/ # licensed pharmacists |
|---|---|---|
| Statewide | **86.61%** (31,603 / 36,487) | **91.18%** (6,520 / 7,151) |
| Allegany | **80.13%** (379 / 473) | **95.71%** (67 / 70) |
| Anne Arundel | **91.65%** (2,592 / 2,828) | **93.39%** (537 / 575) |
| Baltimore | **88.79%** (4,799 / 5,405) | **92.19%** (1,015 / 1,101) |
| Baltimore City | **84.00%** (6,782 / 8,074) | **86.48%** (435 / 503) |
| Calvert | **89.91%** (285 / 317) | **96.08%** (49 / 51) |
| Caroline | **88.24%** (60 / 68) | **100.00%** (18 / 18) |
| Carroll | **89.57%** (567 / 633) | **96.25%** (176 / 187) |
| Cecil | **81.65%** (316 / 387) | **100.00%** (51 / 51) |
| Charles | **84.68%** (431 / 509) | **96.25%** (77 / 80) |
| Dorchester | **89.91%** (98 / 109) | **95.65%** (22 / 23) |
| Frederick | **88.22%** (1,131 / 1,282) | **94.34** 250 / 265) |
| Garrett | **72.31%** (94 / 130) | **100.00%** (24 / 24) |
| Harford | **91.72%** (908 / 990) | **95.69%** (311 / 325) |
| Howard | **89.38%** (1,423 / 1,592) | **92.10%** (979 / 1,063) |
| Kent | **92.59%** (75 / 81) | **91.67%** (11 / 12) |
| Montgomery | **85.98%** (6,512 / 7,574) | **88.35%** (1,388 / 1,571) |
| Prince George's | **84.24%** (2,816 / 3,343) | **87.34%** (683 / 782) |
| Queen Anne's | **91.18%** (93 / 102) | **95.24%** (40 / 42) |
| Saint Mary's | **84.68%** (293 / 346) | **92.73%** (51 / 55) |
| Somerset | **90.00%** (54 / 60) | **100.00%** (10 / 10) |
| Talbot | **89.20%** (322 / 361) | **90.24%** (37 / 41) |
| Washington | **86.72%** (751 / 866) | **98.86%** (87 / 88) |
| Wicomico | **84.76%** (623 / 735) | **93.42%** (142 / 152) |
| Worcester | **89.64%** (199 / 222) | **96.77%** (60 / 62) |

*Registered prescriber jurisdiction is assigned based on the zip code of the address self-reported to OCSA.

**Table 4**. Number of PDMP Queries in CRISP Across All User Categories by Month, Jan. – Aug. 2018.

| Month | InContext [1] | InContext (data returned)[2] | Mirth/ SSO[3] | ULP[4] - Prescribers | ULP - Prescriber Delegates | ULP - Pharmacists | ULP - Pharmacist Delegates |
|---|---|---|---|---|---|---|---|
| Jan. 2018 | 1,882,858 | 121,864 | 24,036 | 47,121 | 19,787 | 40,373 | 2,227 |
| Feb. 2018 | 1,401,887 | 206,800 | 24,981 | 47,589 | 19,177 | 36,679 | 2,245 |
| Mar. 2018[5] | 1,827,600 | 421,100 | 24,749 | 54,317 | 22,806 | 40,927 | 2,855 |
| Apr. 2018[5] | 1,361,500 | 373,400 | 18,597 | 63,481 | 21,710 | 43,884 | 2,699 |
| May 2018 | 2,524,400 | 557,200 | 15,054 | 69,472 | 23,731 | 50,592 | 2,899 |
| June 2018 | 2,708,900 | 714,100 | 16,422 | 80,848 | 25,951 | 50,715 | 2,907 |
| July 2018 | 2,499,400 | 783,700 | 23,255 | 125,232 | 46,709 | 59,102 | 2,992 |
| Aug. 2018 | 3,620,900 | 1,185,800 | 23,318 | 120,701 | 42,601 | 59,202 | 3,005 |
| Total | 17,827,445 | 4,363,964 | 170,412 | 608,761 | 222,472 | 381,474 | 21,829 |

[1]'InContext' total includes all calls for PDMP data from a 'zero-click' electronic health record (EHR) integration, regardless of method or whether PDMP data was returned and displayed.
[2]'InContext (data returned)' only includes calls for PDMP from an InContext situation when a requesting user was authorized to access PDMP data and when PDMP data was available to return and display.
[3]'Mirth/SSO' includes all PDMP data access from a 'one-click' EHR integration to the legacy Mirth CRISP clinical query portal, and during January through April, as a click-through tab within the unified landing page (ULP).
[4]'ULP' totals include queries made by a user in the PDMP Search user interface hosted within the CRISP ULP portal.
[5]March and April InContext numbers impacted by an unanticipated logging issue, which was corrected early May.

## ANALYSIS OF IMPACT OF THE PROGRAM

This section of the report addresses §§ 21–2A–05(f)(3)(iii)–(iv): "[t]he number of disclosures made to federal law enforcement agencies or State or local law enforcement agencies" and "[a]n analysis of the impact on the Program on patient access to pharmaceutical care and on curbing prescription drug diversion in the State."

Key components of the Program include enabling end users to make better use of the PDMP data in decision-making or actions to combat the opioid crisis. Examples include investigative entities requesting PDMP data to further an existing investigation and unsolicited reporting notifications to providers informing them of possible issues in their patients or their own prescribing behavior.

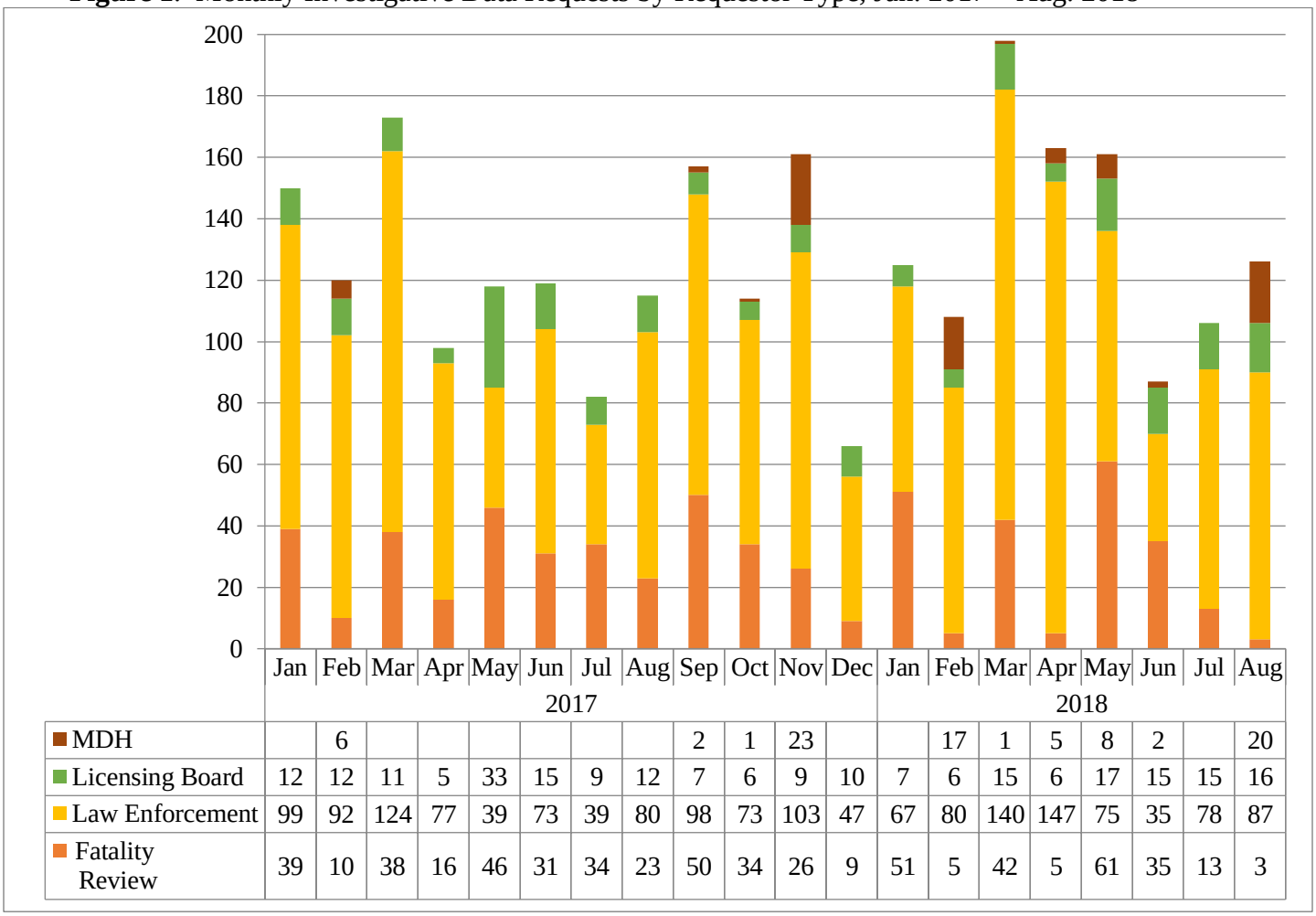
### Investigative User Registration and Use Data

Under the PDMP law, the Program may disclose PDMP data to local, state, or federal law enforcement agencies; Maryland health professional licensing boards; and five agencies within the Department (Office of the Chief Medical Examiner, Office of the Inspector General, Office of Health Care Quality, Medicaid, and Office of Controlled Substances Administration) to further existing, bona fide, individual investigations. In addition, PDMP data can be disclosed to fatality review teams to further existing case review. **Table 5** shows the breakdown of investigative user accounts and total number of valid investigative data requests by user type: local, state, or federal law enforcement, licensing board, fatality review team, or Department agency. All investigative requesters are trained by the Program on the purposes and uses of the PDMP and how to make investigative requests from the PDMP; this training is required prior to receiving a unique investigative user account. **Figure 1** shows monthly requests, by requestor type submitted to the Maryland PDMP from Jan. 1, 2016, through Aug. 31, 2018.

**Table 5**. Total Number of Cumulative Investigative User Accounts and Cumulative Requests Submitted to Maryland PDMP, Mar. 2014 – Aug. 2018.

| Investigative Agency Type | # of Registered Users | | # of Requests Total | |
|---|---|---|---|---|
| | Active Users 2018 | Entire Program | Calendar Year 2018 | Entire Program |
| Federal, State, Local Law Enforcement | 44 | 121 | 710 | 2,709 |
| Licensing Board | 10 | 48 | 97 | 289 |
| Department Agency | 4 | 31 | 53 | 154 |
| Fatality Review | 17 | 40 | 216 | 698 |
| **Total** | **75** | **240** | **1,076** | **3,850** |

**Figure 1**. Monthly Investigative Data Requests by Requestor Type, Jan. 2017 – Aug. 2018




| | Jan 2017 | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | Jan 2018 | Feb | Mar | Apr | May | Jun | Jul | Aug |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MDH | | 6 | | | | | | | 2 | 1 | 23 | | | 17 | 1 | 5 | 8 | 2 | | 20 |
| Licensing Board | 12 | 12 | 11 | 5 | 33 | 15 | 9 | 12 | 7 | 6 | 9 | 10 | 7 | 6 | 15 | 6 | 17 | 15 | 15 | 16 |
| Law Enforcement | 99 | 92 | 124 | 77 | 39 | 73 | 39 | 80 | 98 | 73 | 103 | 47 | 67 | 80 | 140 | 147 | 75 | 35 | 78 | 87 |
| Fatality Review | 39 | 10 | 38 | 16 | 46 | 31 | 34 | 23 | 50 | 34 | 26 | 9 | 51 | 5 | 42 | 5 | 61 | 35 | 13 | 3 |

## Unsolicited Reporting Notifications

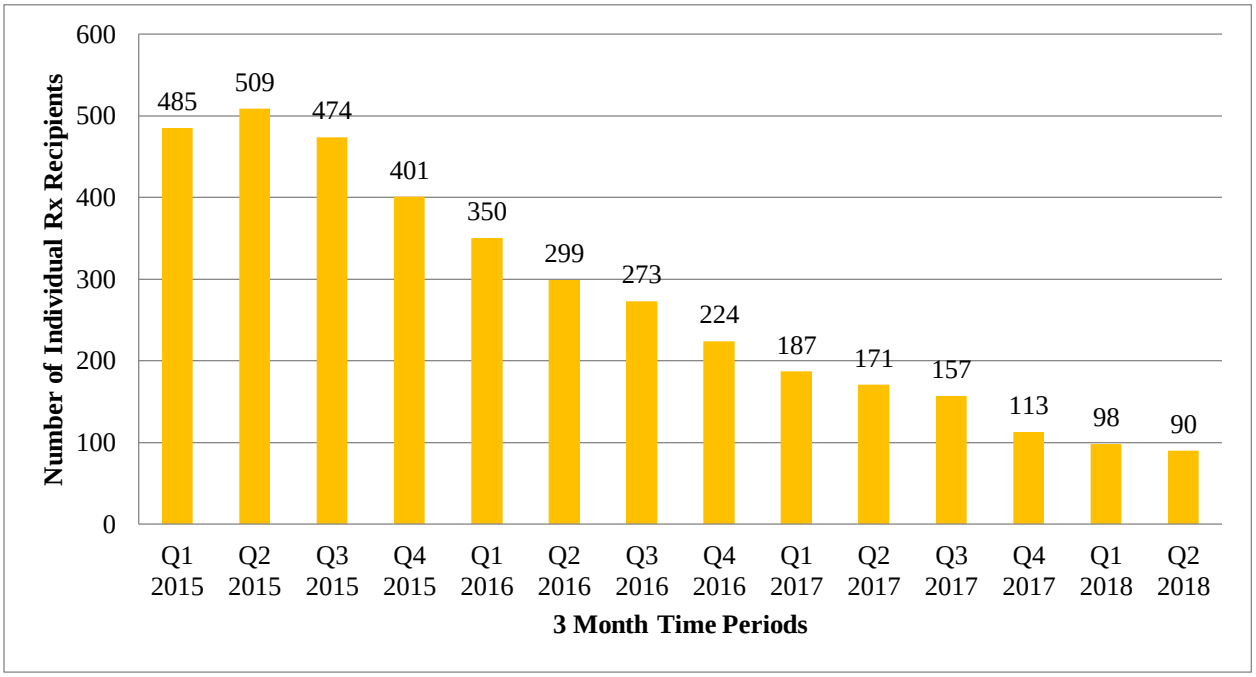
Unsolicited reporting is considered a best practice by the Department of Justice Bureau of Justice Assistance's Prescription Drug Monitoring Program Center of Excellence at Brandeis University, and has been or is currently being adopted by a majority of states. States vary on the types of PDMP users who may receive PDMP data or notifications and the types of questionable patterns identified by the Program that are used to generate notifications. Proactive reporting to prescribers and pharmacists allows the Program to further support clinical decision-making around prescribing CDS, improving legitimate patient access to pharmaceutical care, and assist prescribers and dispensers in identifying prescription drug diversion. Chapter 651 (HB 1296, An Act concerning Prescription Drug Monitoring Program — Review and Reporting of Possible Misuse or Abuse of Monitored Prescription Drugs) was passed during the 2014 legislative session. The statute establishes the authority for the Program to review the PDMP for indications of possible misuse or abuse of a monitored prescription drug, and the Program may proactively report to the prescriber or dispenser of the prescription drug if the review indicates possible misuse or abuse. The PDMP's existing Technical Advisory Committee (TAC) may review the prescription drug monitoring data prior to release of a notification to a prescriber or dispenser.

Implementation of this unsolicited reporting authority (under HB 1296 / Chapter 651, 2014) occurred in 2016 and notifications are sent monthly based on identified possible misuse or abuse. The Program is using a standard approach deployed by many states to identify patients receiving prescriptions from the greatest number of prescribers and filled at the greatest number of pharmacies over specified time periods. Providers identified as having prescribed a controlled substance prescription to that patient during the specified period receive a notification that the patient met or exceeded the set threshold. **Table 6** contains information on unsolicited reporting thresholds and notifications generated to date. In addition, **Figure 2** includes change in the number of unique individuals who meet the standardized multiple provider episode threshold of obtaining CDS prescriptions from at least five prescribers and at least five dispensers in a three-month time period, showing an 81.44 percent decline since 2015.

**Table 6**. Unsolicited Reporting Prescriber Notifications Sent to Date.

| **Date Range (3 Months)** | **Threshold (# Prescriber/ # Pharmacy)** | **Unsolicited Prescriber Notifications Sent** |
|---|---|---|
| Apr. – June 2016 | 15 / 15 | 41 |
| May – July 2016 | 15 / 15 | 17 |
| June – Aug. 2016 | 10 / 8 | 142 |
| July – Sep. 2016 | 10 / 8 | 63 |
| Sep. – Nov. 2016 | 10 / 8 | 38 |
| Dec. 2016 – Feb. 2017 | 10 / 8 | 20 |
| Mar. – May 2017 | 10 / 7 | 121 |
| Apr. – June 2017 | 10 / 7 | 71 |
| May – July 2017 | 10 / 5 | 238 |
| June – Aug. 2017 | 8 / 5 | 109 |
| July – Sep. 2017 | 8 / 5 | 127 |
| Aug. – Oct. 2017 | 8 / 5 | 148 |
| Sep. – Nov. 2017 | 8 / 5 | 181 |
| Oct. – Dec. 2017 | 8 / 5 | 107 |
| Nov. 2017 – Jan. 2018 | 10 / 8 | 194 |
| Dec. 2017 – Feb. 2018 | 8 / 5 | 99 |
| Jan. – Mar. 2018 | 8 / 5 | 125 |
| Feb. – Apr. 2018 | 7 / 5 | 125 |
| May – July 2018 | 8 / 5 | 276 |
| **Total** | | 2,242 |

**Figure 2**. Number of Individuals meeting Multiple Provider Episodes* threshold over time, 2015 – 2018.




*Multiple Provider Episodes = at least five pharmacies and at least five prescribers seen in a three-month period of time, serving as a common proxy for doctor or pharmacy shopping.

Effective Oct. 1, 2016 (HB 437, Chapter 147, 2016), analysis of PDMP data for possible violations of law and possible breaches of professional standards by prescribers and pharmacists is used as the basis for proactive notification to prescribers and pharmacists for educational purposes. The PDMP's existing TAC is required to review the prescription drug monitoring data prior to issuing a notification to the prescriber or dispenser of a controlled dangerous substance. An analytics project to create "red flags" that may indicate possible violations of law or possible breaches of professional standards was completed as of June 30, 2018. PDMP staff are currently applying the results of this project and developing procedures, in consultation with the TAC, to begin notifying prescribers and pharmacists.

## Dispensed Prescription Data

Tracking population-level changes in the volume of prescriptions dispensed in or into Maryland is important for assessing the impact of the Program. The number of all Schedule II–V CDS prescriptions dispensed in or into Maryland and reported to the PDMP in corresponding time periods of years 2014 – 2018 (Jan. 1 – Aug. 30 of each year) is shown in **Table 7** below. Prescriptions reported to the PDMP were dispensed in or into Maryland to a recipient with a Maryland address linked to the prescription but could have been prescribed by a provider who practices outside of Maryland. Breakdowns of dispensed prescriptions by therapeutic classes of interested can be found in **Tables 8 – 10**.

**Table 7**. Total Controlled Substance Prescriptions Dispensed to Maryland Recipients, 2014 – 2018.

| Year (Jan. 1–Aug. 31) | Prescription Count | % Change (Year to Year) |
|---|---|---|
| **2014** | 5,665,844 | N/A |
| **2015** | 5,962,081 | 5.23 |
| **2016** | 5,948,204 | -0.23 |
| **2017** | 5,521,830 | -7.17 |
| **2018** | 5,206,155 | -5.72 |

**Table 8**. Total Opioid* Prescriptions Dispensed to Maryland Recipients, 2014 – 2018.

| Year (Jan. 1–Aug. 31) | Prescription Count | % Change (Year to Year) |
|---|---|---|
| **2014** | 2,407,018 | N/A |
| **2015** | 2,700,342 | +12.19** |
| **2016** | 2,615,985 | -3.12 |
| **2017** | 2,309,853 | -11.7 |
| **2018** | 2,030,811 | -12.08 |

*Total opioids include all prescriptions containing a medication in the opioid class of drugs, except medications containing buprenorphine in a formulation indicated for the treatment of opioid use disorder (OUD). Indication was determined based on Food and Drug Administration (FDA) indication for approved use for treatment of OUD. Strict adherence to approved indications may not occur. Prescriptions were not compared with diagnoses for patients to whom they were prescribed as PDMP does not have this information, and thus this measurable proxy was used.

**Tramadol was scheduled at the end of August 2014 and subsequently became reportable to the PDMP; this could account for some of the increase in opioid dispensing between 2014 and 2015.

**Table 9**. Total Buprenorphine-containing Prescriptions Dispensed by Treatment Indication* to Maryland Recipients, 2014 – 2018.

| Year (Jan. 1–Aug. 31) | SUD Treatment | | Pain Treatment | |
|---|---|---|---|---|
| | Prescription Count | % Change (Year to Year) | Prescription Count | % Change (Year to Year) |
| **2014** | 166,900 | N/A | 5,931 | N/A |
| **2015** | 171,103 | +2.52 | 6,027 | +1.62 |
| **2016** | 180,217 | +5.33 | 6,282 | +4.23 |
| **2017** | 193,979 | +7.64 | 6,633 | +5.59 |
| **2018** | 235,329 | +21.32 | 7,496 | +13.01 |

*Buprenorphine is a medication within the opioid class of drugs, but which is prescribed in specific formulations for the treatment of pain as well as for the treatment of OUD. Indication was determined based on FDA indication for approved use for either the treatment of pain or treatment of OUDs. Strict adherence to approved indications may not occur. Prescriptions were not compared with diagnoses for patients to whom they were prescribed as PDMP does not have this information, and thus this measurable proxy was used.

**Table 10**. Total Benzodiazepine Prescriptions Dispensed to Maryland Recipients, 2014 – 2018.

| Year (Jan. 1–Aug. 31) | Prescription Count | % Change (Year to Year) |
|---|---|---|
| **2014** | 1,214,653 | N/A |
| **2015** | 1,204,550 | -0.83 |
| **2016** | 1,208,395 | +0.32 |
| **2017** | 1,110,483 | -8.1 |
| **2018** | 1,043,114 | -6.07 |

There are some important considerations when reviewing PDMP data output.

Most data are reported in total number of prescriptions, which should not serve as a surrogate for number of patients. Additionally, changes from fewer prescriptions for large quantities of pills to more frequent small quantity prescriptions, as well as diagnosis or age-specific differences in prescribing trends, may skew reports based on total number of prescriptions. The PDMP will continue to work with state and national partners to apply best practices in reporting prescription data.

Total opioid prescription counts also include tramadol, an opioid that was moved by Drug Enforcement Agency (DEA) from being unscheduled to a Schedule IV prescription, effective Aug. 18, 2014.[1] Therefore, for most of the period of 2014 included in this report, tramadol prescriptions were not reported to the Maryland PDMP, while all tramadol prescriptions from 2015 onward were required to be reported to the PDMP.

An analysis conducted comparing PDMP dispensing records against a national prescription comparator (IMS National Prescription Audit (NPA) aggregate prescription data for Maryland), showed congruency of IMS and PDMP data starting in August 2014, showing potential gaps in reporting data prior to this date. The gaps are likely due to bringing all dispensers into compliance with the requirement to report dispensed prescriptions to the PDMP starting August 2013. Therefore, all calendar year 2014 data could be subject to underreporting.

[1] DEA, Department of Justice. Final Rule on Schedules of Controlled Substances: Placement of Tramadol Into Schedule IV, http://www.deadiversion.usdoj.gov/fed_regs/rules/2014/fr0702.htm (as last visited Nov. 4, 2015).

## RECOMMENDATIONS ON MODIFICATION OR CONTINUATION OF THE PROGRAM

This section of the report is intended to address § 21–2A–05(f)(3)(v): "[a]ny recommendation related to modification or continuation of the Program."

Board members support continuation of the Program and its activities, with several areas for possible focus in the future.

Supporting clinical users remains a major focus of the Board, with recommendations to use the existing use mandate requirement to promote increases in adoption by prescribers and pharmacists. The Board recommends that the Program focus on expanding interstate data sharing to other priority states of interest to clinical users. Additionally, the Program should continue to enhance the PDMP user interface within CRISP to display clinically-relevant alerts based on PDMP data. Finally, the Board recommends a focus on ensuring systems performance on all ends, including integrating PDMP data into hospital EHRs and other electronic provider tools.

The Board also suggests that the Program develop the capacity to conduct analyses investigating the possible impact of PDMP on access to and utilization of substance use disorder (SUD) treatment services. There is interest in understanding whether increased PDMP use by clinicians has resulted in increases in the number of patients being referred to SUD treatment services, and whether there are any relevant trends.

Finally, the Board recommends that the Program consider whether there are any national trends in incorporating veterinarian CDS dispensing data into state PDMPs, and whether there is a use case for providing veterinarians access to PDMP data.

## CONCLUSION

During the past year, the Department made substantial progress implementing new Program activities, preparation for and effective implementation of the PDMP use mandate, increasing visibility and uptake of the Program, and continues to work with the Board to increase the Program's ability to meet the evolving roles of the PDMP within the state's opioid strategy. Therefore, the Board recommends that the Governor and General Assembly continue to support ongoing development of the PDMP.

Over the next year, the Board will continue to support the Department by providing ongoing advice about emerging stakeholder PDMP needs, and issue guidance on key priority areas to improve health and safety outcomes related to CDS prescriptions in Maryland. These priorities include achievement of full compliance with the PDMP registration and use mandates, and expansion of education and outreach to clinical users and other relevant stakeholders.

## APPENDIX:
## ADVISORY BOARD ON PRESCRIPTION DRUG MONITORING — MEMBERSHIP

*Chair*

**Audrey Clark, MPA**
Secretary's Designee, Maryland Department of Health
Director, Public Health Services
Office of Controlled Substances Administration

*Current Members (as of October 1, 2018)*

**Daniel M. Ashby, M.S., FASHP**
President's designee, Board of Pharmacy
Vice President and Chief Pharmacy Officer
The Johns Hopkins Health System

**Amit Bhargava, MD, MS, RMSK**
Medical Director
Advanced International Pain & Sports Medicine

**Thomas C.C. Bond, III**
Senior Director
Programs & Strategic Partnerships
Helping Up Mission

**Zachery Chattler, DPM**
President's Designee
Board of Podiatric Medical Examiners

**Richard A. Debenedetto, PharmD, MS AAHIVP**
Assistant Professor of Pharmacy Practice & Administration
University of Maryland Eastern Shore School of Pharmacy & Health Professions

**Lenna Israbian-Jamgochian, PharmD, RPh**
District Pharmacy Manager, Albertsons Safeway Inc-Eastern Division

**Arthur C. Jee, DMD**
President's designee, Board of Dental Examiners
Oral Maxillofacial Surgery

**Chris Jillson, MD**
Emergency Medicine Physician
Alteon Health

**Marcus Jones**
Assistant Chief
Investigative Services Bureau
Montgomery County Police, MD

**Bryan Marascalchi, MD**
Anesthesiologist/Pain Management Specialist
The Johns Hopkins Hospital

**Stephen A. Nichols, MD, FAAP, FAAPMR**
Senior Attending Physician for Rehabilitation Services
Mt. Washington Pediatric Hospital

**Bonnie C. Oettinger, RN, MGA**
President's designee, Maryland Board of Nursing

**Mark D. Olszyk, MD, MBA, CPE, FACEP, FACHE, FFSMB**
Chief Medical Officer/Vice President Medical Affairs Carrol Hospital
Vice President Carroll County Health Group

**Orlee Panitch, MD**
Physician
Medical Emergency Professionals

**Derek Peck**
Captain
Secretary's designee, Maryland State Police
Criminal Enforcement Division

**Larry Polsky, MD, MPH**
President's Designee, Maryland Association of County Health Officers
Health Officer, Calvert County

**Joseph Scalese III, RPh**
Pharmacist
Weis Pharmacy

**Amar Setty, MD**
Anesthesiologist and Pain Medicine
Immediate Past President Maryland Society of Anesthesiology

**David Sharp, Ph.D.**
Chairman's designee
Maryland Health Care Commission
Director, Center for Health Information Technology & Innovative Care Delivery

**Diana Shorter, DNP**
Nurse Practitioner
University of Maryland Community Medical Group

**Michael Vaughn**
Law Enforcement Officer
Baltimore City