Controlled Substances Board

Report 4

January 1 – March 31, 2018

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Wisconsin Controlled Substances Board

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Introduction

This report is being provided pursuant to ss. 961.385 (5) – (6), Wis. Stats., which requires the Controlled Substances Board (CSB) to submit a quarterly report to the Wisconsin Department of Safety and Professional Services (DSPS) about the Wisconsin Prescription Drug Monitoring Program (PDMP). This report is intended to satisfy that requirement for the first quarter of 2018 and will focus on analysis of PDMP data from Q1 2018 in relation to trends over the last 12 months.

The WI PDMP was first deployed in June 2013. It is administered by DSPS pursuant to the regulations and policies established by the CSB. An enhanced system, the WI ePDMP, was launched on January 17, 2017, allowing the WI PDMP to become a multi-faceted tool in Wisconsin's efforts to address prescription drug abuse, misuse, and diversion through clinical decision support, prescribing practice assessment, communication among disciplines, and public health surveillance. Effective April 1, 2017, prescribers are required to check the WI ePDMP prior to issuing a prescription order for a monitored prescription drug, defined as controlled substance prescription drugs in Schedules II-V.

The WI ePDMP Public Statistics Dashboard (https://pdmp.wi.gov/statistics) provides interactive data visualizations for much of the data contained in this report, including the ability to obtain county-level detail.
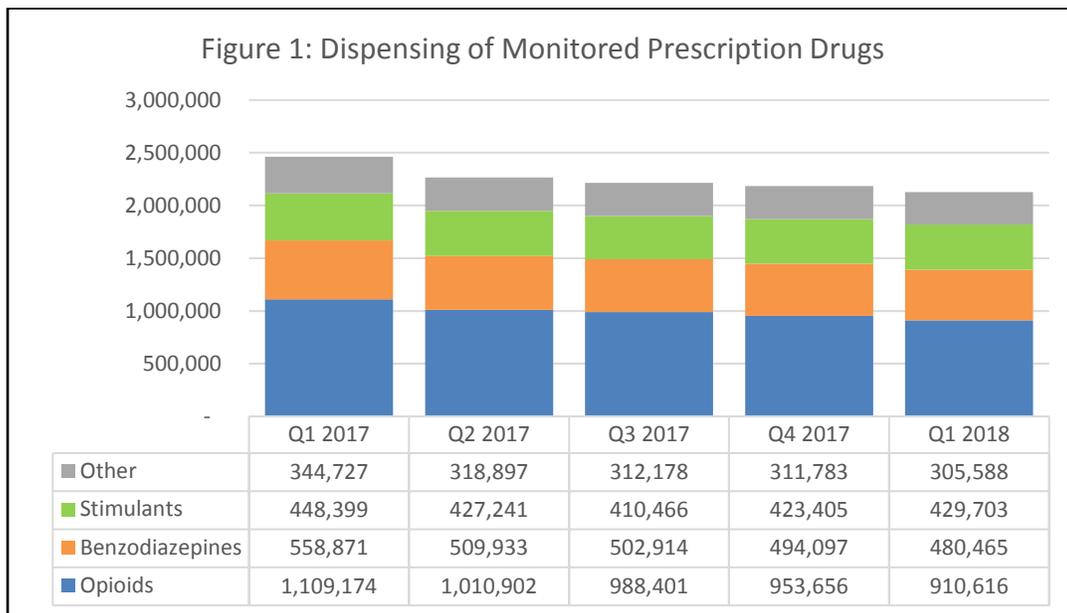
User Satisfaction

DSPS conducted a WI ePDMP user survey at the end of Q1 2018. Results of the survey will be available in the Q2 2018 report.

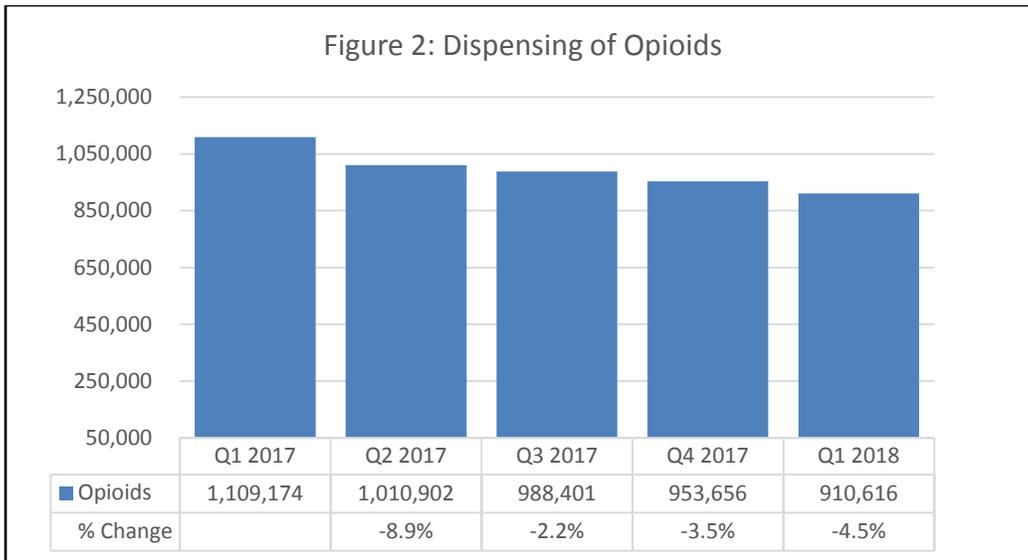# Impact on Referrals for Investigation

Between January 1 and March 31, 2018, the CSB did not make any referrals for possible investigation and disciplinary action pursuant to s. 961.385 (2) (f), Wis. Stats. The CSB has created a work group to develop criteria to begin making referrals for investigation for failure to submit dispensing data, non-compliance with practitioner requirements, or circumstances indicating suspicious or critically dangerous conduct or practices.
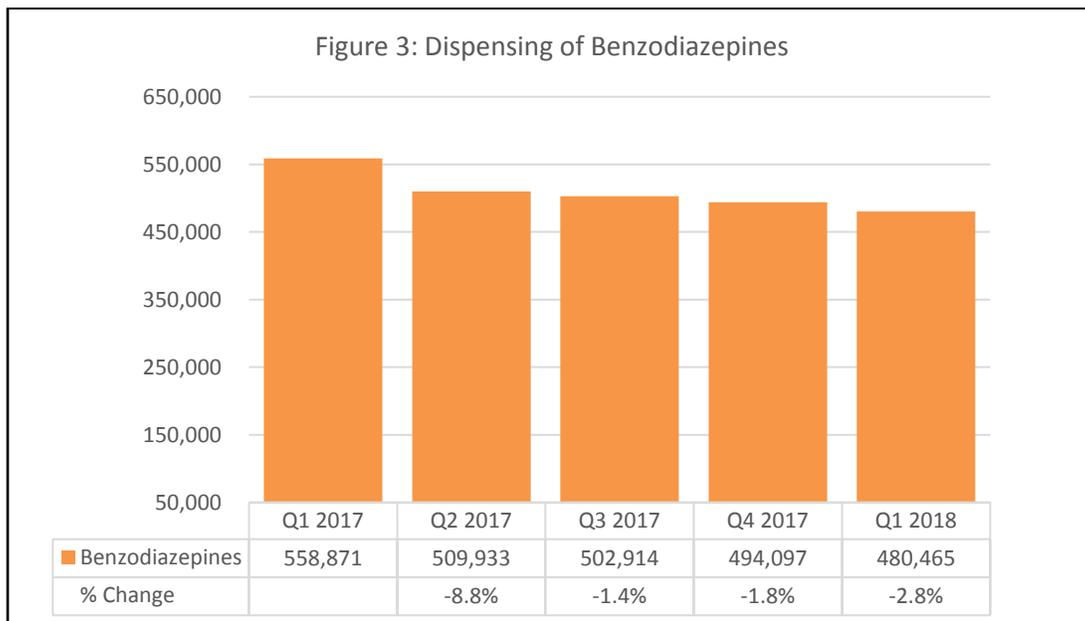
Monitored Prescription Drug Dispensing Trend

There was a 6% reduction in the number of monitored prescription drugs dispensed from Q2 2017 to Q1 2018. The most significant decline occurred in Q2 2017 with an 8% decline in total monitored prescription drugs dispensed compared to the previous quarter. Subsequent quarters, including Q1 of 2018, are showing an average decline in dispensing of approximately 2% per quarter. Figure 1 below shows the decrease from Q1 2017 to Q1 2018 for all drug classes.

Figure 1: Dispensing of Monitored Prescription Drugs

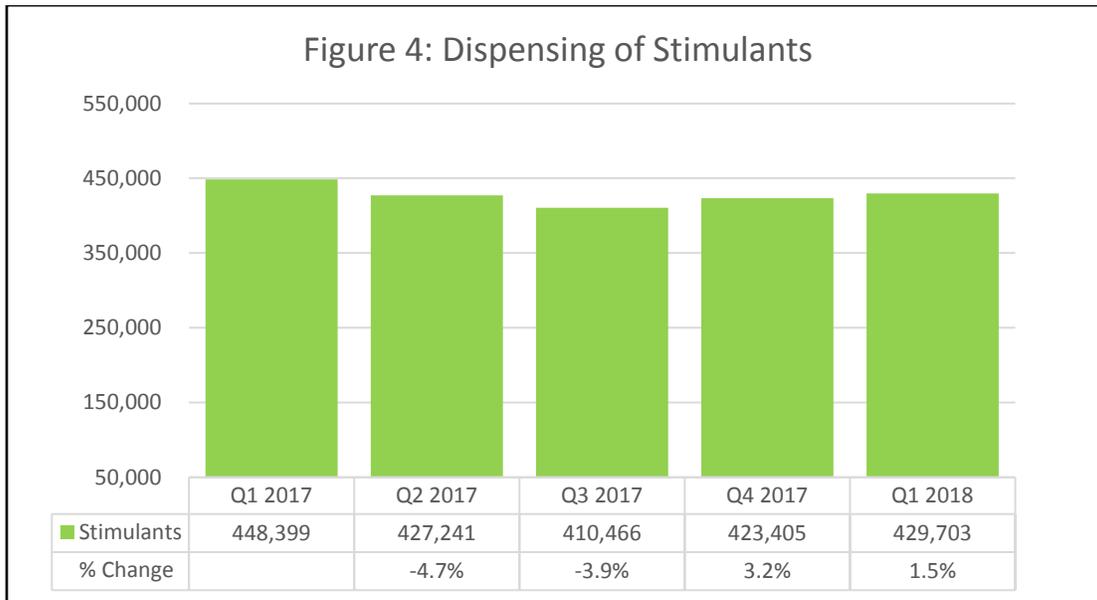|	Q1 2017	Q2 2017	Q3 2017	Q4 2017	Q1 2018
■ Other	344,727	318,897	312,178	311,783	305,588
■ Stimulants	448,399	427,241	410,466	423,405	429,703
■ Benzodiazepines	558,871	509,933	502,914	494,097	480,465
■ Opioids	1,109,174	1,010,902	988,401	953,656	910,616

There was a 10% reduction in the number of opioids prescriptions dispensed from Q2 2017 to Q1 2018. The most significant decline of 9% occurred between Q1 - Q2 2017 with Q2 - Q3 2017 only seeing a 2% decline in dispensing. However, between Q4 2017 and Q1 2018 the decline increased to 4.5%. Figure 2 below shows the decrease from Q1 2017 to Q1 2018 in the number opioid prescriptions dispensed.

Figure 2: Dispensing of Opioids

	Q1 2017	Q2 2017	Q3 2017	Q4 2017	Q1 2018
■ Opioids	1,109,174	1,010,902	988,401	953,656	910,616
% Change		-8.9%	-2.2%	-3.5%	-4.5%

A similar trend is seen with the dispensing of benzodiazepines. There was a 6% reduction in the number of benzodiazepines dispensed from Q2 2017 to Q1 2018. The most significant decline of 9% occurred between Q1 - Q2 2017 with Q2 - Q3 2017 only seeing a 1% decline in dispensing. However, between Q4 2017 and Q1 2018 the decline increased to 3%. Figure 3 below shows the decrease in the number of benzodiazepine prescriptions dispensed.

Figure 3: Dispensing of Benzodiazepines

	Q1 2017	Q2 2017	Q3 2017	Q4 2017	Q1 2018
■ Benzodiazepines	558,871	509,933	502,914	494,097	480,465
% Change		-8.8%	-1.4%	-1.8%	-2.8%

Stimulants continue to fluctuate between increased and decreased dispensing. Overall, there was a 1% increase in the number of stimulant prescriptions dispensed from Q2 2017 to Q1 2018. There was an initial decline of 5% between Q1 - Q2 2017 followed by a 4% decline from Q2 - Q3 2017. However, both Q3 - Q4 2017 and Q4 2017 – Q1 2018 showed increased dispensing of 3.2% and 1.5%. Figure 4 below shows the number of stimulant prescriptions dispensed from Q1 2017 – Q1 2018.

Figure 4: Dispensing of Stimulants

	Q1 2017	Q2 2017	Q3 2017	Q4 2017	Q1 2018
■ Stimulants	448,399	427,241	410,466	423,405	429,703
% Change		-4.7%	-3.9%	3.2%	1.5%

There continues to be no change to the drugs that fall under the 15 most dispensed monitored prescription drugs. Table 1 below shows the top 15 most dispensed monitored prescription drugs in Q1 2018 compared to Q4 2017, ranked in order of the volume of prescriptions dispensed in Q1 2018. The top 15 monitored prescription drugs dispensed make up 88% of the dispensing records for any given quarter.

	Drug Name	Drug Class	Q1 2018 Dispensing	Q4 2017 Dispensing	Percent Change
1	Hydrocodone-Acetaminophen	Opioid	305,670	316,991	-3.6%
2	Amphetamine-Dextroamphetamine	Stimulant	199,683	198,111	0.8%
3	Tramadol HCl	Opioid	174,804	183,020	-4.5%
4	Lorazepam	Benzodiazepines	149,764	151,430	-1.1%
5	Alprazolam	Benzodiazepines	147,126	151,496	-2.9%
6	Oxycodone HCl	Opioid	144,995	153,463	-5.5%
7	Clonazepam	Benzodiazepines	125,076	126,943	-1.5%
8	Zolpidem Tartrate	Other	120,767	124,748	-3.2%
9	Oxycodone w/ Acetaminophen	Opioid	101,953	108,495	-6.0%
10	Methylphenidate HCl	Stimulant	99,717	97,694	2.1%
11	Lisdexamfetamine Dimesylate	Stimulant	92,625	88,774	4.3%
12	Pregabalin	Other	60,218	61,164	-1.5%
13	Diazepam	Benzodiazepines	52,007	54,085	-3.8%
14	Morphine Sulfate	Opioid	49,444	51,155	-3.3%
15	Acetaminophen w/ Codeine	Opioid	38,761	40,591	-4.5%

Table 1. Top 15 Monitored Drugs Dispensed in WI, Q4 2017 to Q1 2018

A notable change for Q1 2018 is the change in the top 5 monitored drugs dispensed. In 2017 the top 5 monitored drugs dispensed consistently included 3 opioids, a stimulant, and a benzodiazepine. In Q1 2018 the top 5 monitored drugs dispensed no longer included Oxycodone HCl, resulting in only 2 opioids

in the top 5 monitored drugs. See Table 2 for the change in the top 5 monitored drugs dispensed between Q4 2017 and Q1 2018.

Q1 2018 Dispensing				Q4 2017 Dispensing		
Drug Name	Drug Class	Number of Dispensing		Drug Name	Drug Class	Number of Dispensing
Hydrocodone-Acetaminophen	Opioid	305,670		Hydrocodone-Acetaminophen	Opioid	316,991
Amphetamine-Dextroamphetamine	Stimulant	199,683		Amphetamine-Dextroamphetamine	Stimulant	198,111
Tramadol HCl	Opioid	174,804		Tramadol HCl	Opioid	183,020
Lorazepam	Benzodiazepines	149,764		Oxycodone HCl	Opioid	153,463
Alprazolam	Benzodiazepines	147,126		Alprazolam	Benzodiazepines	151,496

Table 2. Top 5 Monitored Drugs Dispensed in WI, Q4 2017 to Q1 2018

Table 3 below shows the top 15 most dispensed monitored prescription drugs in Q1 2018 compared to Q4 2017, ranked in order of total quantity of pills dispensed in Q1 2018, rather than number of prescription orders filled. The order of the top 15 monitored drugs based on number of pills shows no change from Q4 2017 to Q1 2018. Even though Oxycodone HCl fell out of the top 5 monitored drugs dispensed during that timeframe based on number of dispensings, it remains in the top 3 monitored drugs dispensed based on number of pills dispensed, and the top 3 drugs dispensed based on number of pills are all opioids.

Top 15 Dispensed Monitored Prescription Drug by Pill Volume					
	Drug Name	Drug Class	Q1 2018 Pills	Q4 2017 Pills	Percent Change
1	Hydrocodone-Acetaminophen	Opioid	15,930,381	16,735,261	-4.8%
2	Tramadol HCl	Opioid	12,199,113	13,062,854	-6.6%
3	Oxycodone HCl	Opioid	11,084,981	12,010,182	-7.7%
4	Amphetamine-Dextroamphetamine	Stimulant	9,506,417	9,485,455	0.2%
5	Alprazolam	Benzodiazepines	8,263,577	8,643,627	-4.4%
6	Clonazepam	Benzodiazepines	7,254,726	7,445,293	-2.6%
7	Lorazepam	Benzodiazepines	7,021,000	7,232,432	-2.9%
8	Oxycodone w/ Acetaminophen	Opioid	6,826,999	7,320,198	-6.7%
9	Methylphenidate HCl	Stimulant	4,589,906	4,598,637	-0.2%
10	Pregabalin	Other	4,432,431	4,515,898	-1.8%
11	Zolpidem Tartrate	Other	3,998,022	4,151,977	-3.7%
12	Morphine Sulfate	Opioid	2,892,600	2,998,605	-3.5%
13	Lisdexamfetamine Dimesylate	Stimulant	2,888,600	2,778,844	3.9%
14	Diazepam	Benzodiazepines	2,120,900	2,258,707	-6.1%
15	Acetaminophen w/ Codeine	Opioid	1,610,728	1,720,844	-6.4%

Table 3. Top 15 Monitored Drugs Dispensed in WI, Q4 2017 to Q1 2018, By Number of Pills

Data-Driven Alerts

The WI ePDMP application uses sophisticated data analytics to assess a patient's controlled substance prescription history. Analytics are performed on the prescription history to identify and alert WI ePDMP users to potential indications of abuse, diversion, or overdose risk, such as high morphine milligram equivalent doses, overlapping benzodiazepine and opioid prescriptions, and multiple prescribers or dispensers.

The 6 types of concerning patient history alerts are:

1. ***Multiple Prescribers or Pharmacies Alert:*** indicates that the patient has obtained prescriptions from at least 5 prescribers or 5 pharmacies within the previous 90 days. NOTE: the 5 prescribers or dispensers may be associated with the same clinic, practice or location, but the WI ePDMP still views them as separate prescribers/dispensers. This alert is not a direct indication of doctor shopping, simply a flag for further inspection of the dispensing history.
2. ***Long-Term Opioid Therapy with Multiple Prescribers Alert:*** indicates when a patient has been prescribed at least 1 opioid prescription from 2 or more prescribers for 90 or more days.
3. ***Early Refill Alert:*** indicates when a patient has refilled a controlled substance prescription 2 or more days earlier than the expected refill date based on the estimated duration of the prescription calculated and reported by the pharmacy.
4. ***High Current Daily Dose of Opioids Alert:*** indicates when a patient's active current prescriptions are estimated to provide a daily dose of opioids that exceeds 90 morphine milligram equivalent (MME).
5. ***Concurrent Benzodiazepine and Opioid Prescription Alert:*** indicates when a patient's active current prescriptions include both an opioid and a benzodiazepine.
6. ***Multiple Same Day Prescriptions Alert:*** indicates when a patient has received the same controlled substance drug from multiple prescribers or pharmacies on the same day.

Overall, there was a 28% reduction in the number of concerning patient history alerts from Q2 2017 to Q1 2018. In 2017, the most significant declines in most alert types occurred between Q1 and Q2 2017, with smaller declines occurring from Q2 – Q3 and Q3 – Q4 2017. However, Q1 2018 saw significantly higher rates of decline for several alert types. Most notably, the number of alerts in Q1 2018 dropped from Q2 2017 for the following alert types: Multiple Prescribers or Pharmacies Alerts, a potential indication of doctor shopping, decreased by 27%, Long Term Opioid Therapy Alerts decreased by 23%, High Opioid Daily Dose Alerts decreased by 26% and Concurrent Benzodiazepine and Opioid Prescriptions Alerts decreased by 17%. This decline in the occurrence of the concerning patient history alerts shows that fewer patients are meeting the criteria that can indicate a potential increased risk of abuse, diversion, or overdose. Figures 5-9 on the following pages show the decrease from Q1 2017 to Q1 2018 for all alert types overall as well as by alert for the 3 highest volume alert types.
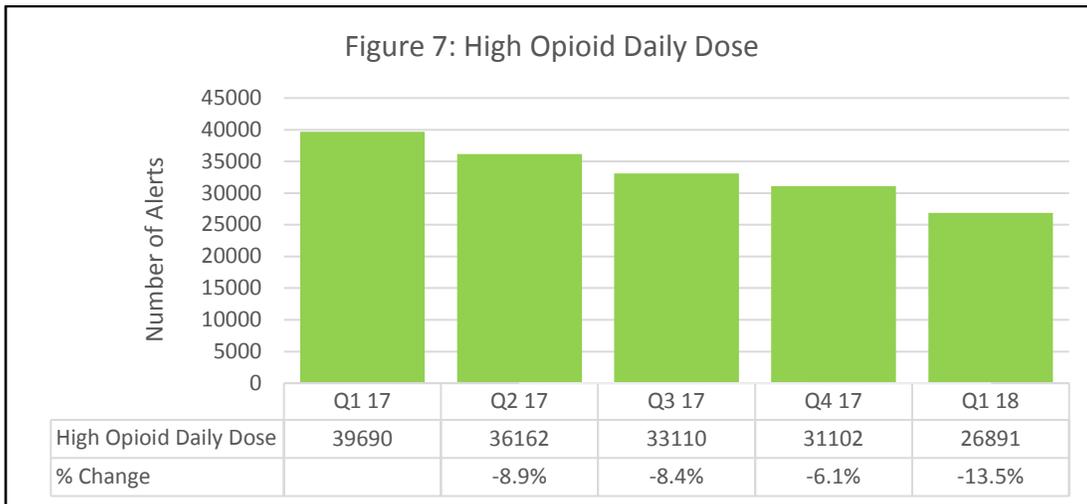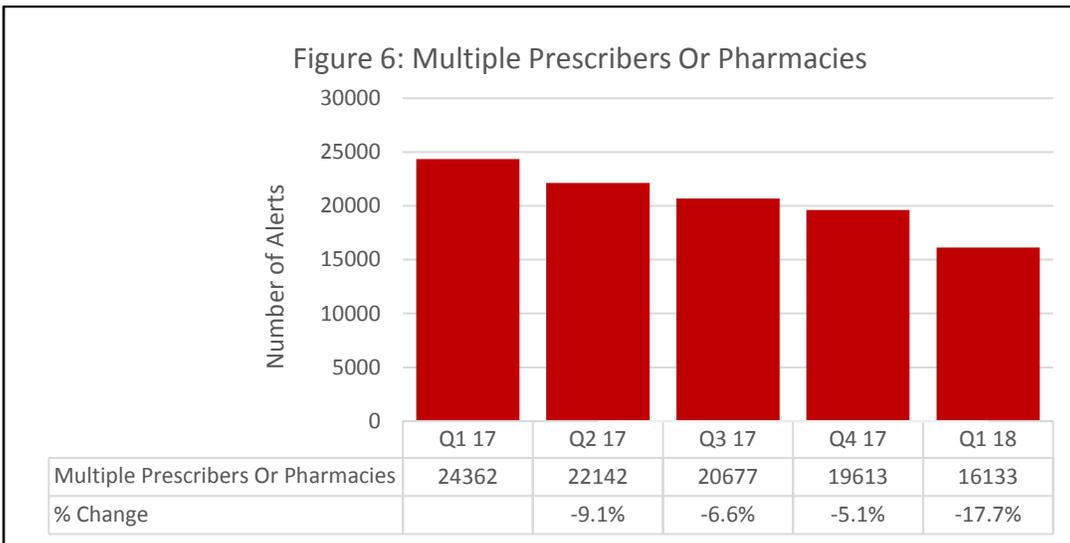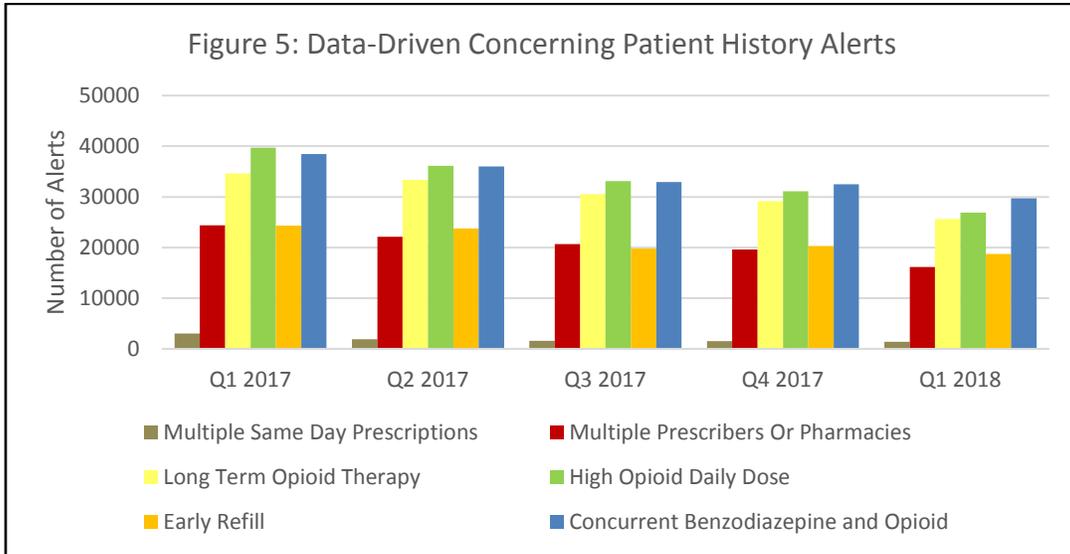
Figure 5: Data-Driven Concerning Patient History Alerts

Figure 6: Multiple Prescribers Or Pharmacies

	Q1 17	Q2 17	Q3 17	Q4 17	Q1 18
Multiple Prescribers Or Pharmacies	24362	22142	20677	19613	16133
% Change		-9.1%	-6.6%	-5.1%	-17.7%

Figure 7: High Opioid Daily Dose

	Q1 17	Q2 17	Q3 17	Q4 17	Q1 18
High Opioid Daily Dose	39690	36162	33110	31102	26891
% Change		-8.9%	-8.4%	-6.1%	-13.5%

Figure 8: Long Term Opioid Therapy

	Q1 17	Q2 17	Q3 17	Q4 17	Q1 18
Long Term Opioid Therapy	34651	33368	30564	29165	25631
% Change		-3.7%	-8.4%	-4.6%	-12.1%
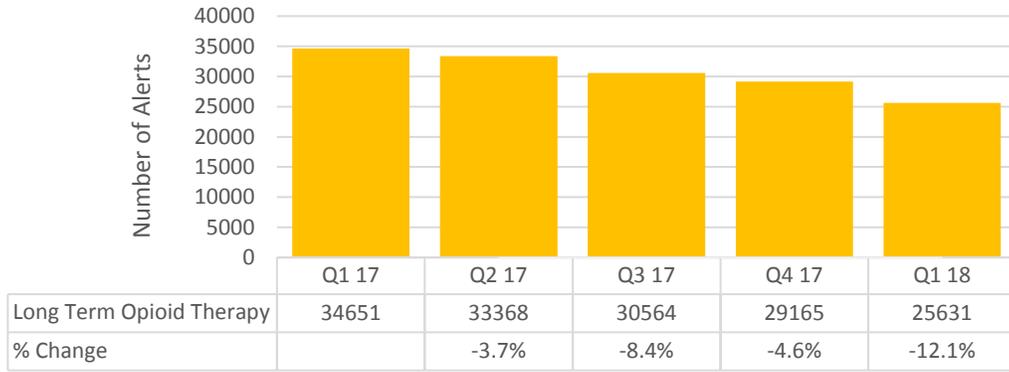
Figure 9: Concurrent Benzodiazepine and Opioid

	Q1 17	Q2 17	Q3 17	Q4 17	Q1 18
Concurrent Benzodiazepine and Opioid	38439	36029	32906	32477	29724
% Change		-6.27%	-8.67%	-1.30%	-8.48%

Disclosure of PDMP Data

Between January 1 and March 31, 2018, healthcare users made 1,827,698 patient queries. The month of January 2018 saw the highest number of patient queries by healthcare users since the 2017 launch of the WI ePDMP. A total of 640,243 patient queries were completed in January 2018. The increased number of patient queries indicates that more healthcare professionals are using the information in the WI ePDMP to support their decision whether to prescribe or dispense controlled substances to their patients. Figure 10 below shows the distribution of queries by month and user type for 2017 through Q1 2018.
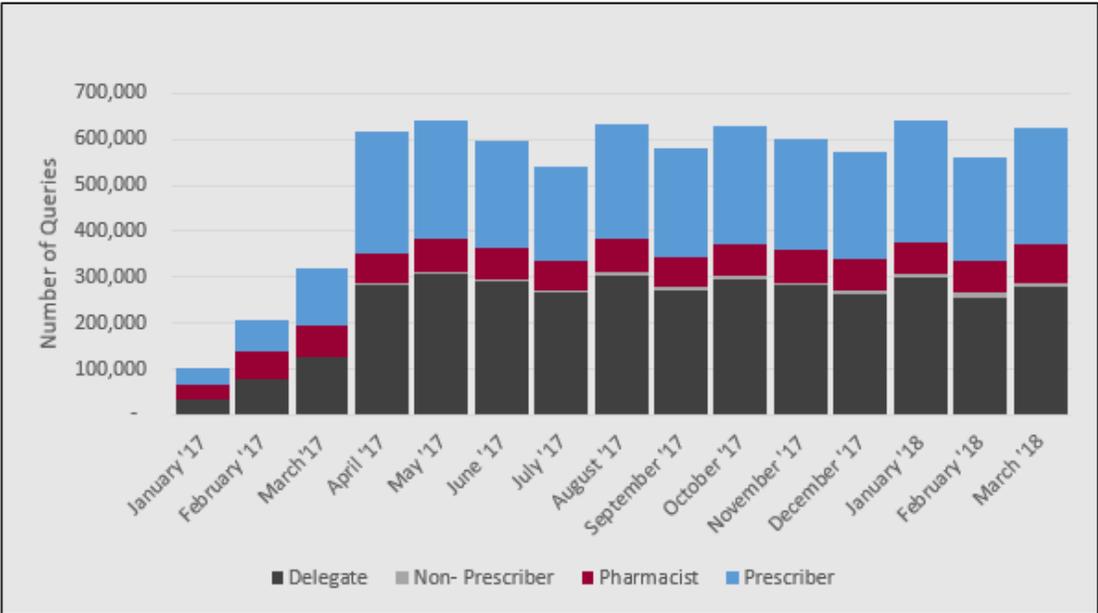
Figure 10. WI ePDMP Patient Queries by Healthcare Professionals, January 2017 – March 2018

In addition to the enhanced user interface of the WI ePDMP, a direct link to WI ePDMP patient reports from within electronic health records (EHR) has increased the accessibility of WI ePDMP patient reports for providers within participating health systems. Other state PDMPs have reported that the increased accessibility of patient reports through EHRs has been a driving force behind increased use of the PDMP. As of March 31, 2018, twelve health systems in WI have integrated one-click access to the PDMP from within their EHR platforms. The number of patient queries coming from the direct integration continues to increase steadily, as Figure 11 below shows. In March 2018, 38% of patient queries were through the direct EHR integration, compared to 33% in December 2017.
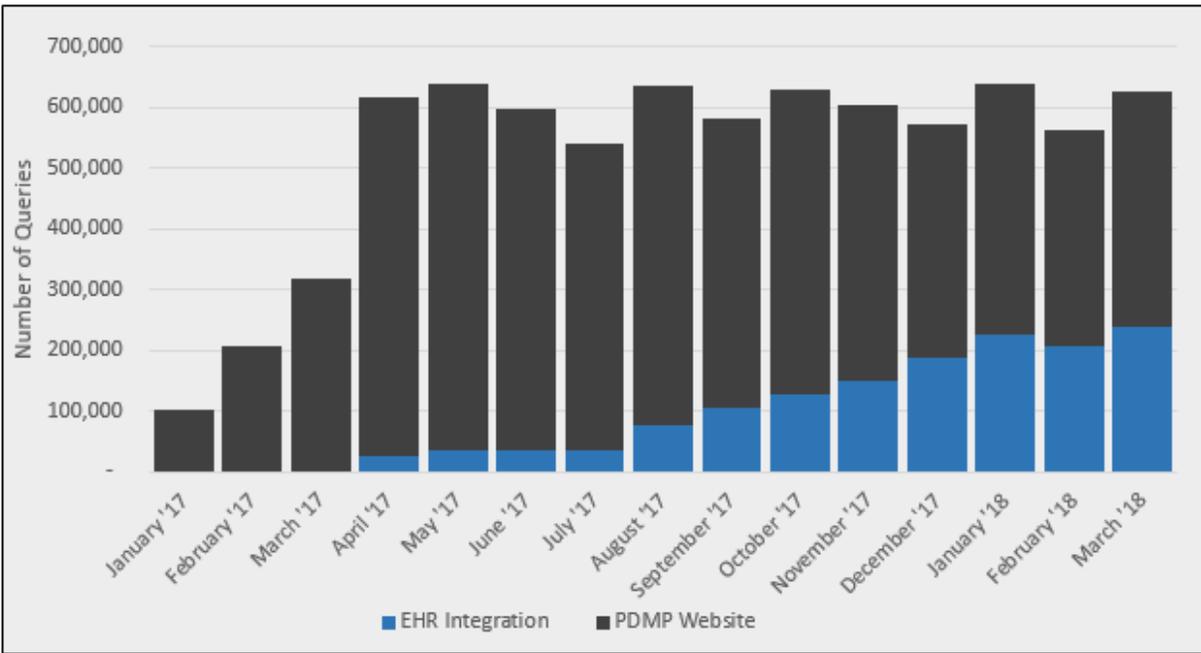
Figure 11. WI ePDMP Patient Queries, by Source, 2017 – Q1 2018

Authorized individuals from non-healthcare groups made 326 requests for PDMP data in Q1 of 2018, a 40% increase over Q4 2017. The vast majority of the requests, 80%, came from law enforcement users, which is a 10% increase from Q4 2017. All requests for PDMP information from non-healthcare groups are reviewed by DSPS staff for legal sufficiency before the reports are released. Figure 12 below shows the distribution of queries by month and user type for 2017 through Q1 2018.
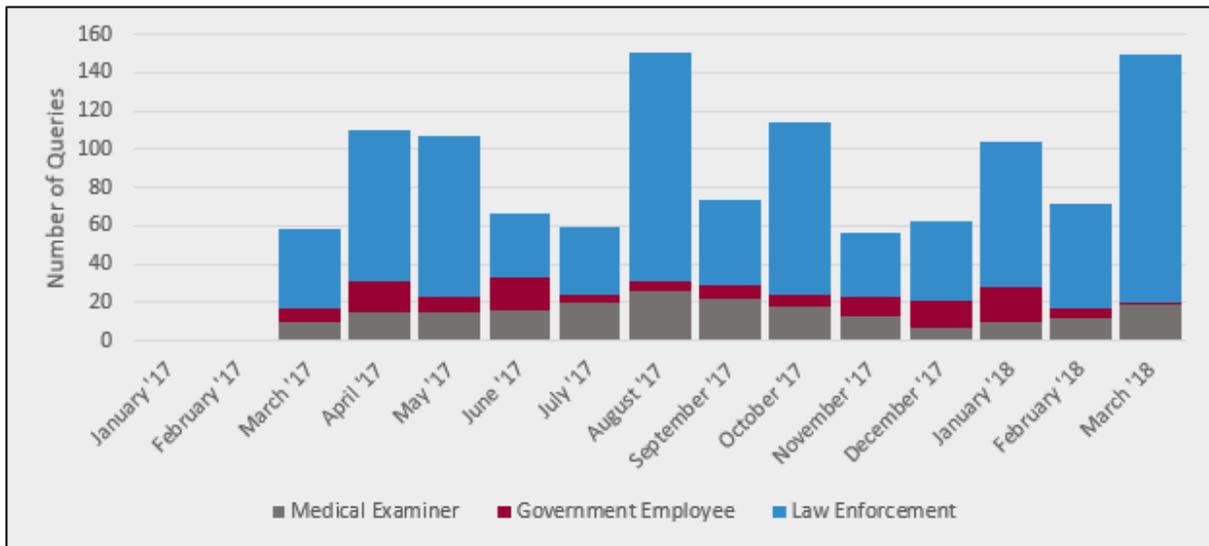

Figure 12. Non-Healthcare WI ePDMP Queries, 2017 – Q1 2018

Law Enforcement Reports

Between January 1 and March 31, 2018, Wisconsin law enforcement agencies reported 635 events to the WI ePDMP as required by s. 961.37 (3) (a), Wis. Stat. The law requires the agencies to submit a report in each of the following situations:

1. When a law enforcement officer receives a report of a stolen controlled substance prescription.
2. When a law enforcement officer reasonably suspects that a violation of the Controlled Substances Act involving a prescribed drug is occurring or has occurred.
3. When a law enforcement officer believes someone is undergoing or has immediately prior experienced an opioid-related drug overdose.
4. When a law enforcement officer believes someone died as a result of using a narcotic drug.

Figure 13 below shows the number of reports submitted to the PDMP by month for January 2017 through March 2018. There is no requirement for law enforcement agencies to submit their reports within a certain timeframe after the date of the event. Outreach for law enforcement agencies is ongoing as part of an effort to increase awareness of the requirement to submit to the PDMP and the value of the PDMP notifying the prescribers of the events for patients to whom they prescribe.
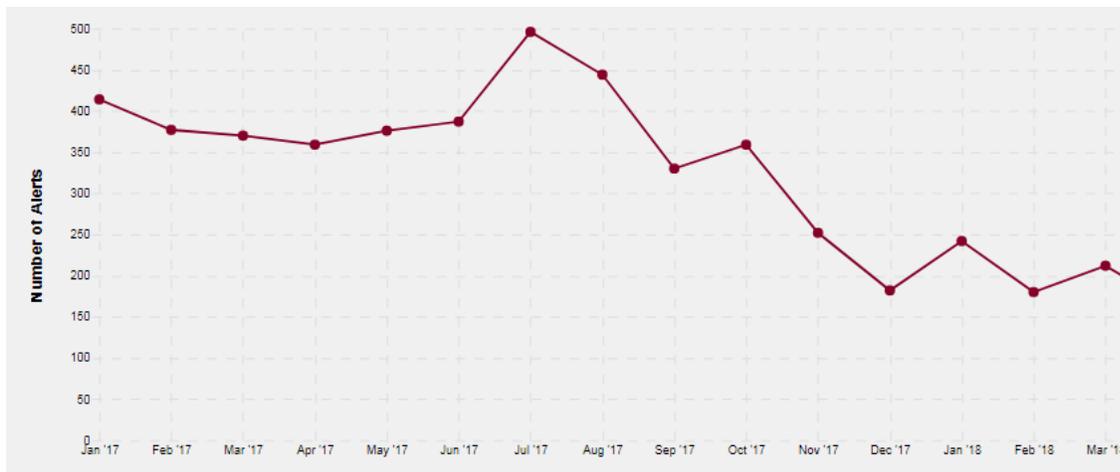

Figure 13. Law Enforcement Alerts Submitted to the WI ePDMP, Q1 2017- Q1 2018

In Q1 2018 the distribution of submission by report type remains fairly consistent with the 2017 distribution:

- 37% of the reports submitted were reports of stolen controlled substance prescriptions
- 31% of the reports submitted were suspected violations of the Controlled Substances Act
- 27% of the reports submitted were suspected non-fatal opioid-related overdose events, and
- 5% of the reports submitted were suspected narcotic-related deaths.

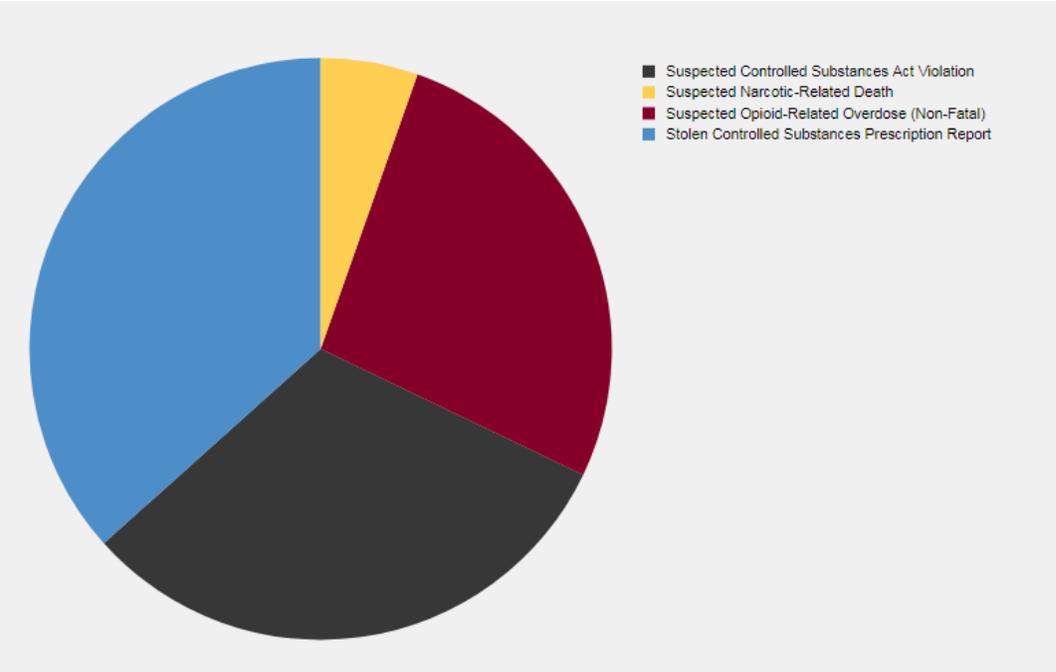The distribution by report type can be seen in Figure 14 below.

Legend:
- Suspected Controlled Substances Act Violation
- Suspected Narcotic-Related Death
- Suspected Opioid-Related Overdose (Non-Fatal)
- Stolen Controlled Substances Prescription Report

Figure 14. Breakdown of Law Enforcement Alerts Submitted to the WI ePDMP, by Alert Type, Q1 2018

Summary

The first quarter of 2018 shows a continuation of the encouraging controlled substance prescribing and data-driven alert trends, as noted in the Controlled Substances Board's 2017 PDMP report. Q3 and Q4 of 2017 dispensing data indicated the decreased dispensing of controlled substance prescriptions may have started leveling off, but Q1 2018 is indicating that the significant decreases to the number of controlled substances dispensed are continuing. Data-driven alerts for concerning patient histories involving multiple prescribers or pharmacies, long term opioid therapy, and high opioid daily dose continue to decline quarter over quarter.

Some items of note for the WI PDMP over the past year are:

- 6% decrease in the total number of monitored drug prescriptions dispensed in the past 12 months

    o 10% decrease in the number of opioid prescriptions dispensed

    o 6% decrease in the number of benzodiazepine prescriptions dispensed

- 23% decrease in the total number of data-driven concerning patient history alerts generated in the past 12 months

    o 27% decrease in multiple prescribers or pharmacies alerts, which is a potential indication of doctor shopping

    o 23% decrease in long term opioid therapy alerts

    o 26% decrease in the high opioid daily dose alerts, which is a daily dose of opioids that exceeds 90 morphine milligram equivalents

    o 17% decrease in the concurrent benzodiazepine and opioid prescription alerts

These decreases can be attributed to the increased awareness of the risk of opioid use and the information made available through the WI ePDMP. In January 2018, healthcare users made a record number of 640,243 patient queries in the WI ePDMP. These users are presented with a comprehensive report of the PDMP dispensing data and alerts providing valuable information to support more informed controlled substance prescribing decisions. The initial 2018 data is indicating that the Wisconsin healthcare community is continuing to decrease not only the number of opioid prescriptions dispensed, but also the overall volume of pills.

Additional detail about the WI ePDMP data, including county-level detail for many of the charts, can be found on the WI ePDMP Public Statistics Dashboard (https://pdmp.wi.gov/statistics) under the corresponding tabs of Controlled Substance Dispensing, PDMP Utilization, and Law Enforcement Alerts.