

Program Performance Report

Prescription Drug Monitoring Program (PDMP)

January–December 2013



BJA
Bureau of Justice Assistance
U.S. Department of Justice

Prescription Drug Monitoring Program (PDMP)

Program Performance Report (January–December 2013) Introduction

The misuse and abuse of pharmaceutical drugs rose over 132 percent from 2004 to 2011.¹ Increasing awareness and concern of such activities has led to state legislation, monitoring, and (in some cases) changes in state insurance policies.² To curtail prescription drug misuse and abuse, Congress appropriated funding in FY 2002 for the Harold Rogers Prescription Drug Monitoring Program (PDMP) to enhance the capacity of state-level officials (i.e., law enforcement, public health, regulatory boards) to collect and analyze controlled substance prescription data through a centralized state administered database. As of December 2013, 48 states and one U.S. territory (Guam) had operational PDMP systems.

This report summarizes PDMP grantee data reported in the Bureau of Justice Assistance (BJA) Performance Measurement Tool (PMT) between January and December 2013. Reporting grantees received BJA PDMP funding in Fiscal Years 2007–2013. Thirty active and operational grantees submitted performance measure data for this report.³

Controlled substances are classified into 5 specific categories defined as schedules (I–V), which correspond to the level of potential dependency and abuse.⁴ The PDMP PMT collects data on a subset of these scheduled substances. Due to the mostly illegal nature of Schedule I drugs, states cannot report their distribution. This report presents data on Schedules II, III, and/or IV drugs and potential doctor and/or pharmacy shopping defined by Thresholds A and B.⁵ Because some states do not record the distribution of controlled substances categorized as Schedule III–V, this report presents findings that best correlate with each performance measure.

¹ Substance Abuse and Mental Health Services Administration. (2013). *Drug Abuse Warning Network, 2011: National estimates of drug-related emergency department visits* (HHS Publication No. [SMA] 13-4760, DAWN Series D-39). Rockville, MD: Author. Retrieved on April 9, 2014, from <http://www.samhsa.gov/data/2k13/DAWN2k11ED/DAWN2k11ED.htm>

² MacQuarrie, B. (2014, April 8). Blue Cross cuts back on painkiller prescriptions: An 18-month effort targets opiate abuse. *The Boston Globe*. Retrieved on April 9, 2014, from <http://www.bostonglobe.com/metro/2014/04/07/state-largest-health-insurer-cuts-painkiller-prescriptions/UAgtbqJLOXPrsNASuJ27sJ/story.html>

³ There were 30 active and operational grantees during the period under review. However, an additional 5 grantees submitted narrative data but were unable to provide data for all performance measures due to lack of direct access to state-level PDMP data. Four of the 5 were Category 3 awards, while 1 was Category 2. Additionally, two grantees in MD reported the same data because of the type of grant awarded. Only one grantee was included in the analysis to avoid duplication of data.

⁴ Each drug schedule is defined by the Drug Enforcement Administration (DEA) under the Controlled Substance Act (CSA).

Schedule I drugs, substances, or chemicals currently have no accepted medical value and are classified as having high potential for abuse leading to severe dependency. Examples include heroin, LSD, peyote, ecstasy, and marijuana. Currently, 22 states and the District of Columbia now allow legal use of marijuana, which is a Schedule I drug. Therefore, we do not have a way to report the distribution of this drug.

Schedule II drugs, substances, or chemicals are defined as those with high potential for abuse, leading to psychological or physical dependence, but less so than Schedule I. Examples include cocaine, fentanyl, methamphetamine, methadone, and oxycodone.

Schedule III drugs, substances, or chemicals are defined as having a moderate to low potential for physical and psychological dependence. Examples include Vicodin®, ketamine, and Tylenol with Codeine®.

Schedule IV drugs, substances, or chemicals are defined as having low potential for abuse and low risk of dependence. Examples include Xanax®, Valium®, clonazepam, and Ambien®.

Schedule V drugs and substances have a low risk for abuse and dependency; these are generally used for antidiarrheal, antitussive, and analgesic. Examples include Robitussin AC, Lyrica, and Lomotil.

⁵ Threshold A is defined as filling Schedule II, III, and/or IV drug prescriptions from 5 or more prescribers at 5 or more pharmacies within 3 months. Threshold B is defined as filling Schedule II, III, and/or IV drug prescriptions from 10 or more prescribers at 10 or more pharmacies within 3 months.

Key Findings

These observations reflect aggregate key performance measurement data reported in the PMT by the PDMP grantees in calendar year (CY) 2013. This sample of activities illustrates how BJA funding is used to implement and enhance PDMPs across the country.

- By the end of 2013, 36% of licensed pharmacists and 22% of licensed prescribers registered to use PDMP systems (Figure 1).
- There was a steady increase in the number of patients filling prescriptions within a 3-month period for all reported drug schedules until the last quarter of 2013, when it declined (Figure 2). The peak occurred in the third quarter for Schedule II, Schedule II and/or III, and Schedule II, III, and/or IV drugs. However, prescription filling was up overall in 2013.
- The number of both adults and youth receiving painkiller prescriptions (morphine equivalent of 100 mg or greater per day) varied in 2013 (Table 1). Despite a decrease during two quarters in 2013, the number of adults receiving these prescriptions increased overall in 2013. The number of youth receiving prescriptions also decreased substantially in the first quarter, then continued to increase until the last quarter of 2013 (Figure 3). The last quarter of data correlates with findings in the Prescription Behavior Surveillance System (PBSS) data, where decreases (−1.9% to −0.1%) were observed.⁶
- For Schedule II drugs, there was an overall increase in the number of patients exceeding Thresholds A and B for the year (Figure 4). However, the year ended with a 14% decrease in the number of patients exceeding Threshold A for Schedule II drugs (Figure 5). This finding also correlates with changes observed in the PBSS data, which show decreases (−37% to −12.5%) in the final quarter of 2013 for patients exceeding Threshold A.
- Doses of Schedule II, III, and/or IV drugs dispensed for both patients exceeding Thresholds A and B decreased from the beginning of the year (Table 2). The overall rate of decrease for number of doses dispensed to patients exceeding Threshold A was 17%, though there was substantial fluctuation throughout the year. The number of doses dispensed to patients exceeding Threshold B decreased 92% overall in 2013 (Figure 6).
- An average of 91% of required pharmacies reported at least once every 3 months in the PDMP (Figure 7).
- The majority of all PDMP reports were produced for prescribers (68%), followed by pharmacists (31%). See Table 3 for details on the aggregate PDMP system reports produced during the review period.

PDMP Activities

The observations present aggregate data for calendar year 2013 based on PDMP grantee activities, which includes registrations in PDMP systems, prescriptions, prescription drug distribution, and reporting.

The identified PDMP key performance measures (noted in headers in this report with an asterisk [*]) capture important aspects of implementing and enhancing PDMP systems. Some measures focus on system expansion and increasing the capacity of data collection capabilities. For instance, through increased user registration, PDMPs also increase the knowledgeable user base to gather information. Reporting compliance provides states with an opportunity to target negligent pharmacies. By monitoring prescriptions and dispensation, states and agencies can determine areas for improvement. A detailed explanation of the key performance measures is in Appendix A.

Registration*

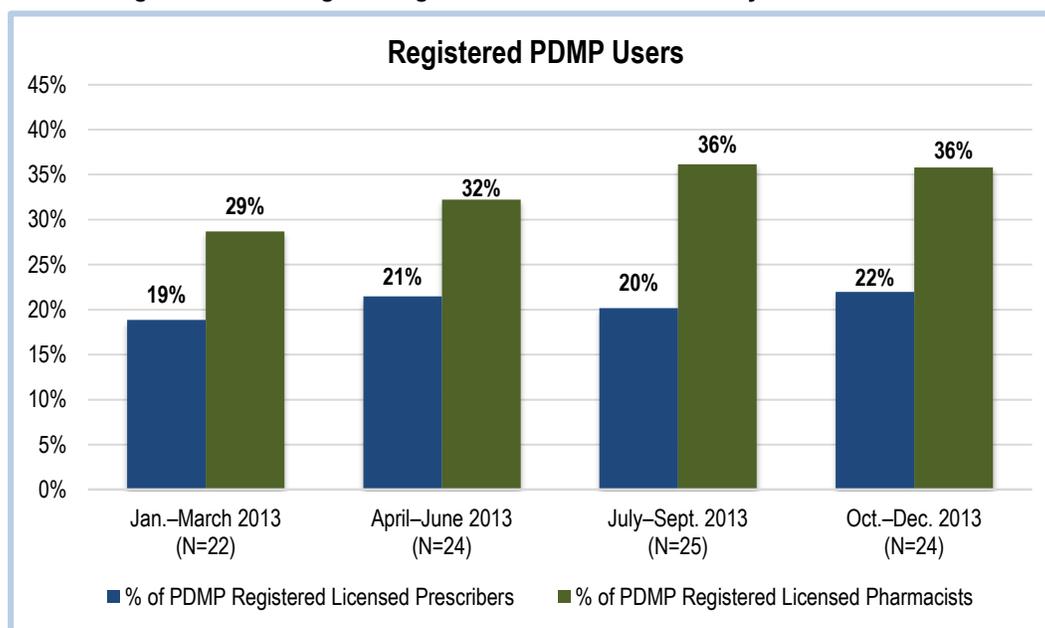
Registration in PDMP systems appears to be increasing over time. Both prescriber and pharmacist registration increased in 2013, suggesting grantees raised awareness and provided information, including training, about PDMP systems. Overall, total registration (prescribers and pharmacists) steadily increased, reaching 31% by year end. Most grantees reported consistently in each quarter of 2013.

⁶ A limited number of states submit data to the PBSS. The states reporting to PBSS include: CA, DE, FL, ID, ME, OH.

Licensed prescriber registration in PDMP systems averaged 21%, ranging from 19% to 22%. In October–December 2013, registration totaled 186,527. Overall in 2013, the number of registered prescribers increased 28%. Prescriber registration in October–December 2013 was above 85% for two grantees (KY and ME), while 13 grantees had rates below 25%.⁷

The percent of registered pharmacists increased from 29% to 36% in the past year. The number of registered pharmacists increased by 38% overall in 2013. Grantees reported a total of 77,910 registered pharmacists in October–December 2013. Also in this quarter, two grantees (KY and OH) had registration rates above 70% and six grantees had registration rates below 25%.⁸

Figure 1. Percentage of Registered PDMP Users, January–December 2013*



Dispensation of Medications

Filled Prescriptions

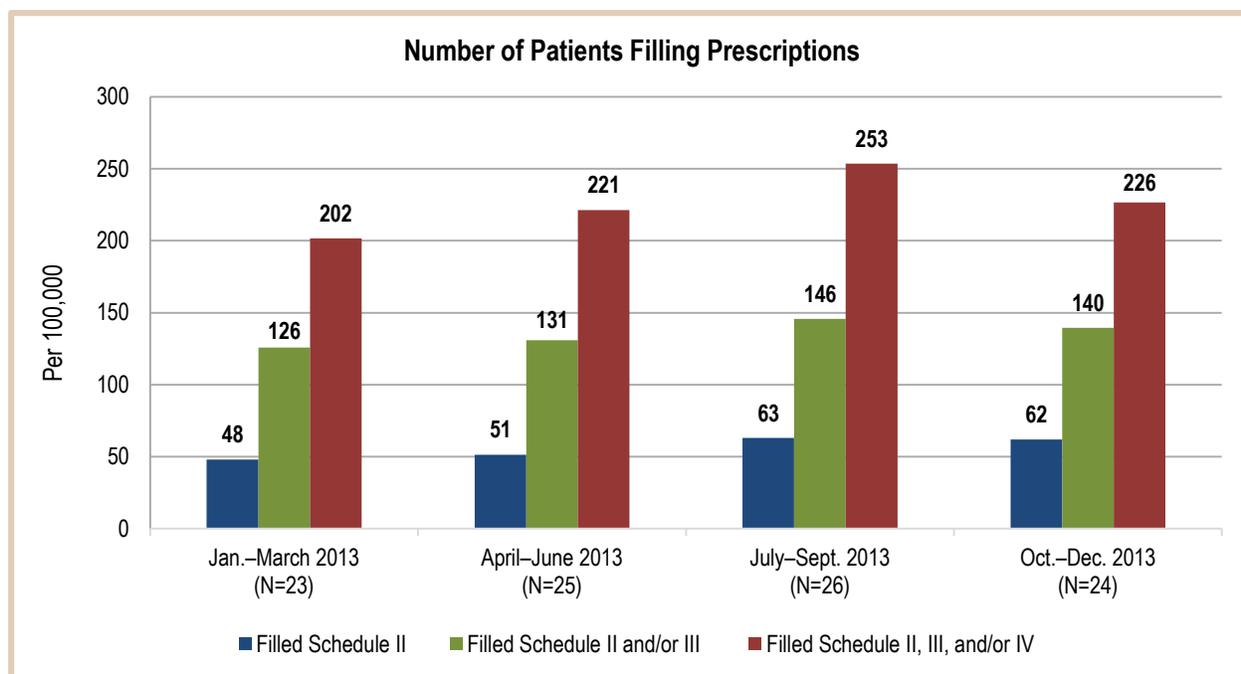
In an effort to understand how many patients are filling prescriptions for various medications, dispensing information for the various reported drug schedules is presented in Figure 2. The total number of patients filling prescriptions each quarter increased steadily until October–December 2013, when there was a slight decrease in filled prescriptions for each reported medication schedule. The largest decrease (11%) in the number of patients filling prescriptions occurred between the third and fourth quarters for Schedule II, II, and/or IV drugs. Despite the fluctuation throughout 2013, there was an overall increase in the number of patients filling prescriptions for each drug schedule.⁹

⁷ During 2013, 5 grantees did not report any registered licensed prescribers while 4 did not provide registered licensed pharmacists. Three of the grantees fell into both categories of reporting zero registration. By year end, all operational and active grantees were able to provide these data. Grantees with prescriber registration rates below 25% are AR, CA, FL, GA, MD (2), MN, MT, OR, RI, SD, WA, and WI.

⁸ Grantees reporting pharmacist registration below 25% are CA, MA, MD (2), ME, and RI.

⁹ Schedule II drug prescriptions were up 29% overall, Schedule II and/or III drugs rose 11% overall. Schedule II, III, and/or IV increased 12% overall.

Figure 2. Number of Patients per 100,000 Filling Scheduled Prescriptions per 3-Month Period, January–December 2013



Painkiller Prescriptions*

Hydrocodone/acetaminophen was ranked as the top prescribed drug overall in 2013 based on a study completed by the IMS Institute for Healthcare Informatics.¹⁰ The Center for Disease Control and Prevention (CDC) also recently stated that increases in drug-related fatalities were associated with painkiller overdoses because of increased prescription drug abuse.¹¹ Because painkillers are among the most prescribed and most commonly abused medications, it is important to monitor painkiller prescriptions for both youth and adults. Therefore, the PDMP PMT collects data on the number of adults and youth receiving painkiller prescriptions.

Table 1. Number of Adults and Youth that Received Prescriptions for Painkillers with Morphine Equivalent Greater than 100 mg per Day

| Reporting Period | Jan.–March 2013 (N=17) | April–June 2013 (N=19) | July–Sept. 2013 (N=21) | Oct.–Dec. 2013 (N=20) ¹² |
|-----------------------|------------------------|------------------------|------------------------|-------------------------------------|
| Number of Adults | 245,771 | 220,092 | 304,922 | 307,907 |
| Number of Youth | 1,588 | 1,643 | 2,626 | 2,442 |
| Total Patients | 247,359 | 221,735 | 307,547 | 310,349 |

The number of adults receiving painkiller prescriptions increased overall in 2013 by 25%, peaking in October–December 2013 (307,907).¹³ The number of adults exceeded 1 million (1,078,692) for the year. Adults constitute practically the entire total (99%) of patients who received painkiller prescriptions as reported in the PMT. When comparing this measure to the 2012 fourth quarter to determine if there was a difference annually in reporting, 5 grantees decreased while only 1 increased.

¹⁰ Del Favero, C. (2013, July 16). 10 most prescribed drugs: Users should be aware of interaction issues. *The Albany Times Union*. Retrieved April 10, 2014, from <http://www.timesunion.com/living/article/10-Most-Prescribed-Drugs-4668268.php>

¹¹ Center for Disease Control and Prevention, National Center for Injury Prevention and Control, Division of Unintentional Injury Prevention. (2013, July 2). *Policy impact: Prescription painkiller overdoses*. Atlanta, GA: Author. Retrieved on April 11, 2014, from <http://www.cdc.gov/homeandrecreationalsafety/rxbrief/>

¹² Large increases of adults were reported in MA (31%), which steadily increased during the CY 2013. An additional 4 states (IN, KS, MA, and OH) reported large numbers of adults for the last quarter.

¹³ The PDMP PMT collects data on the distribution of painkillers with a morphine equivalent greater than 100 mg per day.

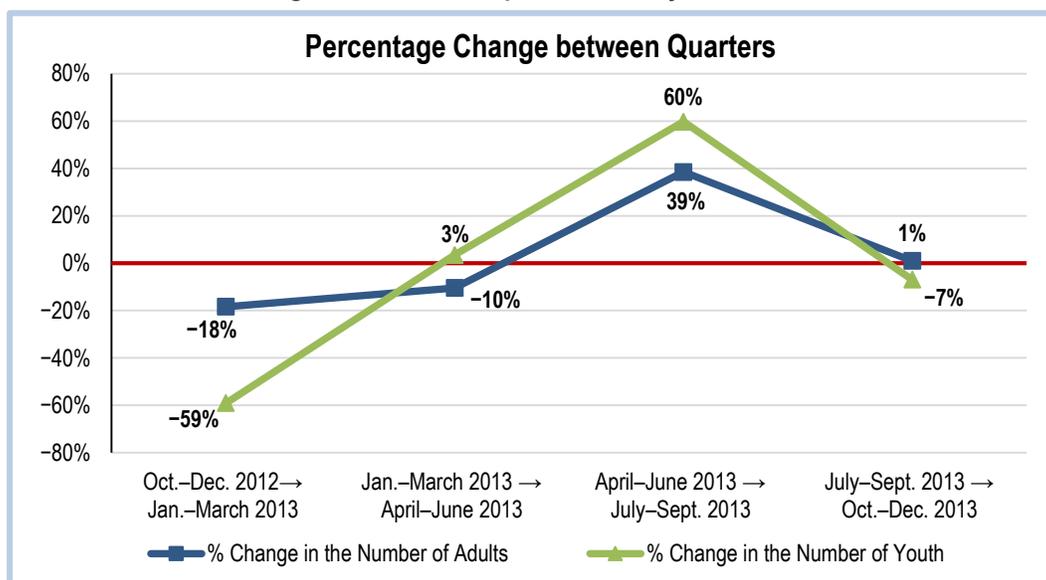
Youth receiving morphine equivalent prescriptions totaled over 8,298 for the year. The peak (2,625) occurred in July–September 2013, a 60% increase from the previous quarter. In the fourth quarter, the number of youth dropped by 7%. The number of youth receiving painkiller prescriptions increased 54% overall during 2013. Comparing this measure to data reported in 2012 in the fourth quarter, of the matching grantees, there were 3 grantees with decreases and 2 with increases.

The noted increases during the third quarter suggest that a particular event or set of events is occurring. A possible explanation is that injuries increase during the summer months. Therefore, prescriptions for painkillers would subsequently increase.

Some grantees with high rates of compliance also reported more adults and youth receiving painkiller prescriptions (Figure 3).¹⁴ Approximately 77% of all adults reported in the last quarter were from 3 grantees (IN, KS, and OH). In each of these cases, there was actually a slight decrease from the third quarter to the fourth quarter. Ninety-five percent of all youth reported in October–December 2013 were also from 4 grantees (IL, IN, KS and OH).

In comparison to the general population, the number of adults and youth receiving prescriptions is minimal. Youth receiving painkiller prescriptions are less than 1% of the total youth population in the United States. Adults make up no more than 1% of the total adult population.

Figure 3. Aggregate Percentage Change between Quarters in Number of Adults and Youth Receiving Painkiller Prescriptions, January–December 2013*

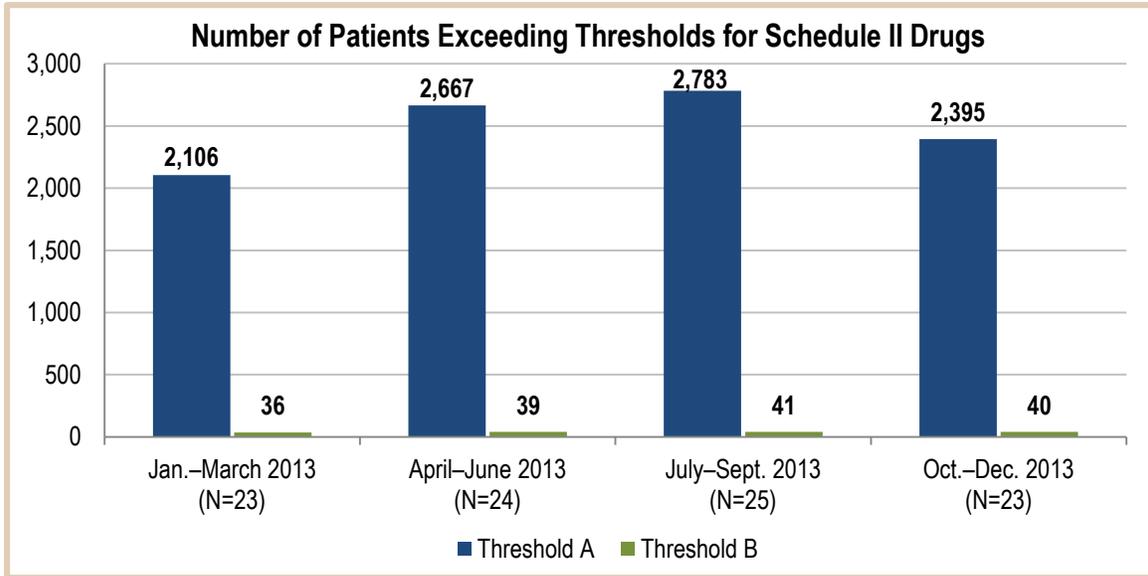


Number of Patients Exceeding Thresholds A and B*

Because Schedule II drugs are linked to increased dependency and abuse, the data for exceeding Thresholds A or B is presented for only Schedule II drugs (Figure 4). Due to threshold definitions, there are likely to be more patients who exceed Threshold A (i.e., 5 prescribers and 5 pharmacies in 3 months) than Threshold B (i.e., 10 prescribers and 10 pharmacies in 3 months). Thus, the data appear skewed between the two.

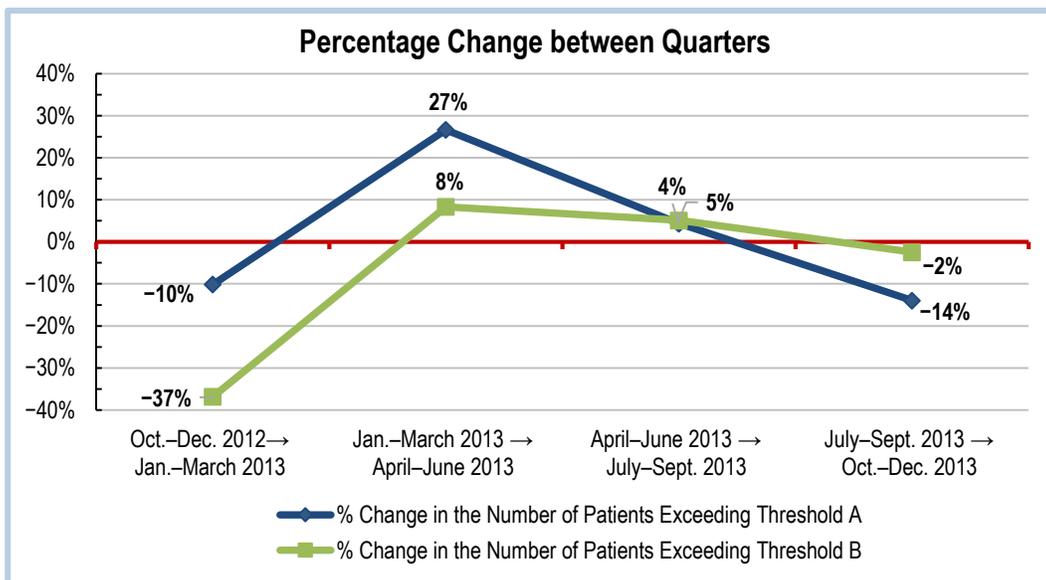
¹⁴ There is no statistically significant correlation between the number of pharmacies reporting quarterly and the number of adults/youth receiving painkiller prescriptions.

Figure 4. Number of Patients Exceeding Prescription-Filling Thresholds for Schedule II Drugs, January–December 2013



The number of patients exceeding Thresholds A and B increased in the first three quarters of 2013 (Figure 5). In 2013, 9,951 total patients exceeded Threshold A for Schedule II drugs, while 156 exceeded Threshold B. A peak occurred in the third quarter for patients exceeding Threshold A, followed by a 14% decline in the final quarter. There was a very slight decrease (2%) in patients exceeding Threshold B between the third and fourth reporting periods. The average rate of change per quarter in 2013 was 6% for patients exceeding Threshold A and 4% for patients exceeding Threshold B. The ratio of patients to actual population is negligible for both thresholds.

Figure 5. Aggregate Percentage Change between Quarters in Number of Patients Exceeding Threshold A and Threshold B for Schedule II Drugs, January–December 2013*



Number of Doses to Threshold A and B Patients*

Drug classification limits reporting on drug dispensation due to the unique breakdown between type and schedule of drugs. Therefore, dosage data are presented for Schedules II, III, and/or IV drugs to be as inclusive as possible.¹⁵ The PDMP PMT uses four drug types to specify the number of doses dispensed (Table 2).

¹⁵ The majority of Schedule II drugs are classified as pain relievers and stimulants.

Table 2. Number of Doses Dispensed to Patients Exceeding Thresholds A and B for Schedule II, III, and/or IV Drugs, January–December 2013¹⁶

| Drug Type | Jan.–March 2013 (N=21) | April–June 2013 (N=22) | July–Sept. 2013 (N=24) | Oct.–Dec. 2013 (N=23) |
|--------------------|---------------------------|---------------------------|---------------------------|--------------------------|
| Threshold A | | | | |
| Pain Relievers | 4,770,923 | 6,896,921 | 7,754,859 | 4,132,304 |
| Tranquilizers | 1,086,488 | 1,388,115 | 1,131,169 | 712,640 |
| Stimulants | 383,643 | 548,419 | 491,583 | 318,540 |
| Sedatives | 317,991 | 482,946 | 849,999 | 268,555 |
| Total | 6,559,045 | 9,316,401 | 10,227,610 | 5,432,039 |
| Threshold B | | | | |
| Pain Relievers | 1,194,881 | 1,288,350 | 462,695 | 124,066 |
| Tranquilizers | 370,991 | 385,630 | 37,117 | 8,008 |
| Stimulants | 115,750 | 126,650 | 14,484 | 5,349 |
| Sedatives | 96,853 | 112,258 | 52,294 | 13,178 |
| Total | 1,778,475 | 1,912,888 | 566,590 | 150,601 |

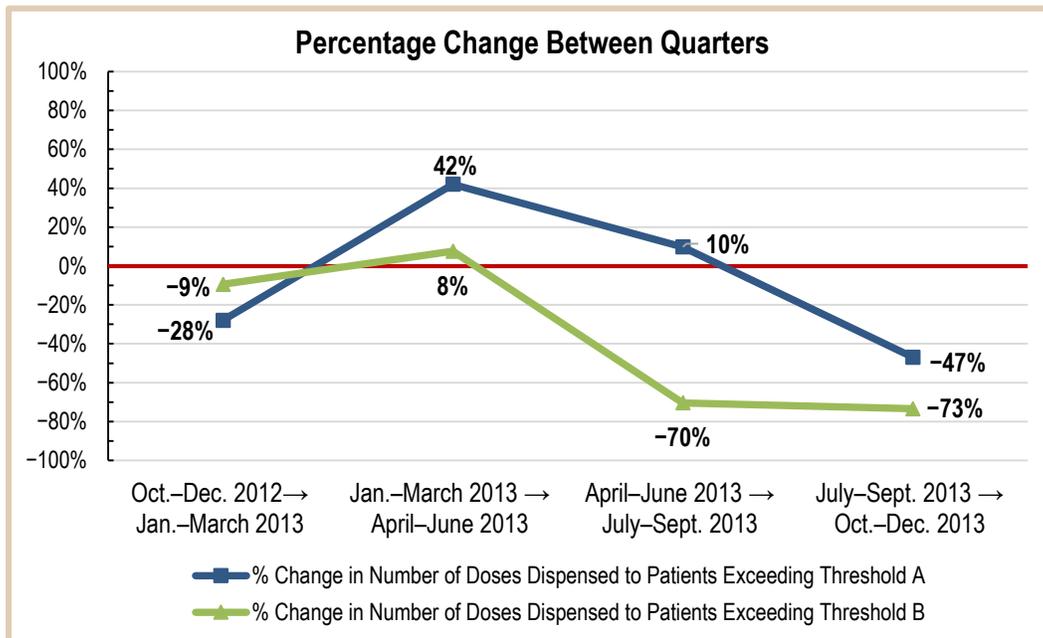
Overall in 2013, all doses reported for all drug types decreased.¹⁷ Doses of pain relievers and sedatives increased in the first three quarters of the year for Threshold A patients. Pain relievers accounted for 75% of the total nonliquid doses dispensed to patients exceeding Threshold A in 2013. The total number of doses for patients exceeding Threshold A decreased 17% overall, despite a peak (10,227,610) in July–September 2013. The number of doses for patients exceeding Threshold A totaled over 31.5 million in 2013. Several states (GA, IL, KS, and RI) had large drops between the third and fourth quarter (–86% to –45%), which contributed to the aggregate decrease in patients exceeding Threshold A.

As expected, fewer patients exceeded Threshold B than Threshold A in 2013 (Figure 6). The number of doses for patients exceeding Threshold B totaled over 4.4 million in 2013. There was a significant decline (92%) overall. In the last quarter of 2013, the number of patients exceeding Threshold B declined 73%. The number of doses dispensed to Threshold B patients had the largest reduction in drug types across the board, ranging from overall decreases of 86% to 98% in 2013. From July to December 2013, there was a correlation between the number of doses for particular drug classification types reported and the number of pharmacies reporting. Some states (AR, CA, GA, IL, MA, NC, and WI) had large drops (–89% to –58%) between the last two quarters, contributing to the aggregate decrease in patients exceeding Threshold B.

¹⁶ Pennsylvania and Rhode Island do not monitor all schedules of drugs. Pennsylvania monitors Schedule II only while Rhode Island monitors Schedule II and III. Several states are noted as not collecting data from dispensing practitioners.

¹⁷ There was also a decrease in patients exceeding Thresholds A and B for Schedule II drugs only. During CY 2013, four grantees consistently reported 0 for patients exceeding Threshold A, while 15 consistently reported 0 for patients exceeding Threshold B. In instances of reported zeroes, it is assumed that grantees did not have access to the data.

Figure 6. Aggregate Percentage Change between Quarters in Number of Doses Dispensed to Patients Exceeding Thresholds A and B for Schedule II, III, and/or IV Drugs*



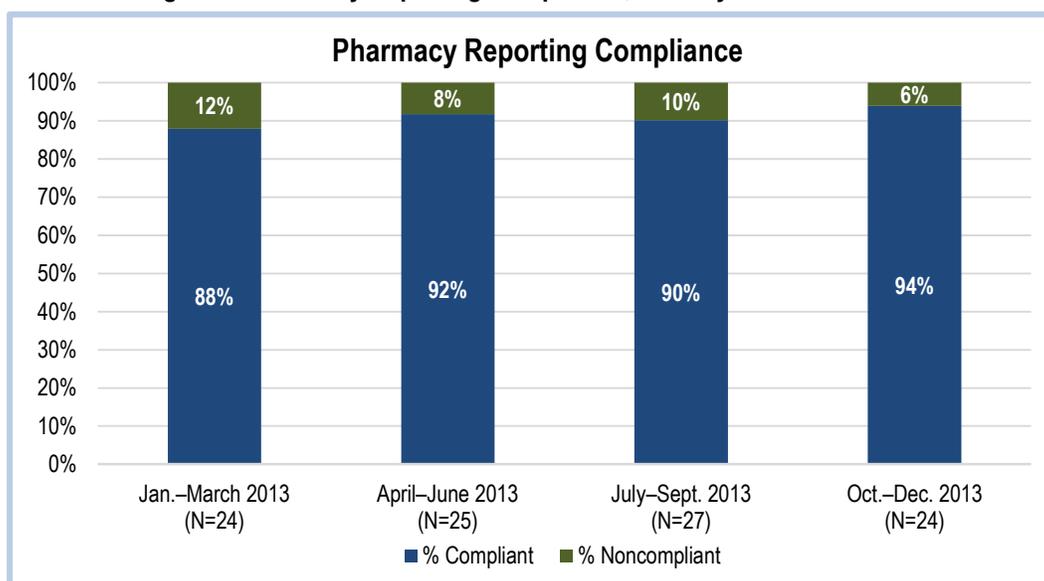
Reporting

Pharmacy Compliance*

For the purposes of this report, reporting compliance is defined as the percentage of reporting pharmacies out of the total required to report at least once in the 3-month timeframe. Grantees report the number of dispensaries that accessed the PDMP system and submitted at least one report.

The overwhelming majority (88% to 94%) of pharmacies reported in the PDMP at least once in a 3-month reporting period (Figure 7). Reporting compliance was stable in 2013, with a 6% increase across the year. Pharmacy reporting compliance in 2013 averaged about 91%. As of October–December 2013, 94% of the pharmacies required to report submitted at least one report. At least 9 states reported 100% reporting compliance while 3 states (AL, CO, KS) reported less than 75% at year end.

Figure 7. Pharmacy Reporting Compliance, January–December 2013*



End Users

PDMP grantees provide details on the types of reports sent to agencies and various end users. The PMT requires specific details on solicited and unsolicited reports as well as intrastate and interstate reports. Solicited reports are responses to direct queries from end users/PDMPs, while unsolicited reports are proactively sent to end users/PDMPs to review suspicious behavior. In-state reports are classified as intrastate, and reports sent to other states are interstate.

Since BJA established the PDMP PMT reporting requirements, the number of PDMP system reports produced has increased substantially. Between April 2011 and December 2013, the total number of reports increased by 114%. The largest increase (5,821%) over time was in interstate solicited reporting sent to another PDMP. This increase could be attributed to the Prescription Monitoring Information Exchange (PMIX).¹⁸

Since the last review period, PDMP intrastate unsolicited reporting decreased (99%).¹⁹ This decrease may be partially due to an increase in registered PDMP users and connected agencies. Through these additional users and connections, PDMP systems are more readily accessible via solicited reports. Only a limited number of grantees were also able to provide counts of interstate reports during this review period due to the limitations of their PDMP systems. Grantees were least likely to provide data on unsolicited reporting.

PDMP reports were produced in most instances for prescribers (68%). Pharmacists account for almost all other reports produced (31%). Solicited in-state reports account for the majority (88%) of all reports in 2013. Generally, grantees produce the most in-state reports. PDMPs produced the fewest unsolicited reports. In many cases, state regulation prohibits sharing of information, which could explain the low number of unsolicited reports. Some states also require use of PDMP systems, which could also be a contributing factor in the low number of unsolicited reports.

¹⁸ PMIX established an interoperability infrastructure for data sharing between PDMP systems for interstate sharing of PDMP data.

¹⁹ Note: Two grantees contributed to 78% of the total intrastate unsolicited reports in CY 2013.

Table 3. Aggregate Number and Percentage of PDMP Reports Produced for End Users, January–December 2013²⁰

| End User | Intrastate Reports | | Interstate Reports | | | |
|-------------------------------|-------------------------|---------------------------|--------------------|--------------|----------------------|-------------|
| | Solicited ²¹ | Unsolicited ²² | Solicited | Unsolicited | Sent to Another PDMP | |
| | | | | | Solicited | Unsolicited |
| Prescribers | 16,009,883 | 39,210 | 842,070 | 2,573 | 2,244,402 | 0 |
| | 65% | 72% | 84% | 91% | 94% | 0% |
| Pharmacists | 8,380,047 | 11,831 | 162,835 | 227 | 150,452 | 0 |
| | 34% | 22% | 16% | 8% | 6% | 0% |
| Law Enforcement ²³ | 107,856 | 3,078 | 862 | 21 | 4 | 0 |
| | <1% | 6% | <1% | 1% | <1% | 0% |
| Regulatory Agency | 11,621 | 7 | 55 | 0 | 8 | 0 |
| | <1% | <1% | <1% | 0% | <1% | 0% |
| Patients | 459 | 0 | 1 | 0 | 0 | 0 |
| | <1% | 0 | <1% | 0 | 0 | 0% |
| Researchers | 13 | 0 | 2 | 0 | 0 | 0 |
| | <1% | 0% | <1% | 0% | 0% | 0% |
| Medical Examiners/ Coroners | 1,448 | 0 | 1 | 0 | 0 | 0 |
| | <1% | 0% | <1% | 0% | 0% | 0% |
| Drug Treatment Programs | 0 | 0 | 0 | 0 | 0 | 0 |
| | 0% | 0% | 0% | 0% | 0% | 0% |
| Drug Court Judges | 273 | 0 | 0 | 0 | 0 | 0 |
| | <1% | 0% | 0% | 0% | 0% | 0% |
| Other ²⁴ | 21,655 | 0 | 0 | 0 | 0 | 0 |
| | <1% | 0% | 0% | 0% | 0% | 0% |
| Total | 24,623,255 | 54,126 | 1,005,826 | 2,821 | 2,394,866 | 0 |

²⁰ Percentages of the total within columns are reported. Zeroes may indicate no reports were generated or that the category was not applicable. Grantees report the number of reports produced every 3 months.

²¹ Solicited reports are provided by a PDMP in response to a request from an end user or another PDMP (i.e., requests fulfilled).

²² Unsolicited reports are proactively created by a PDMP and forwarded to another end user or another PDMP.

²³ Law Enforcement includes police officers, correctional officers, sheriff's officers or deputies, and other law enforcement personnel.

²⁴ Other includes media, peer review, committees, social workers, attorneys, workforce safety agents, and Medicaid lock-in programs.

Accomplishments

Every 6 months, grantees provide a narrative update on their accomplishments. The following represents a sample of self-reported grantee accomplishments within the review period to demonstrate how PDMP funds were expended.

- The Florida PDMP 2012–2013 Annual Report reported deaths caused by oxycodone decreased by 41% in 2012. Florida also reported a 28% increase in registration and a 61% increase in use of the PDMP. Through PDMP implementation, the Florida Department of Health increased its data-tracking abilities.
- The Norfolk County District Attorney’s Office of Massachusetts supplied police stations with safe return prescription boxes, which are then safely disposed of at no cost to residents.
- The Massachusetts Prescription Monitoring Program (MA PMP) activated electronic alerts for potential doctor and/or pharmacy shopping.
- Several grantees completed data-sharing agreements for evaluation projects of their PDMP systems (MA, IN, OR, and WA).
- Indiana established data sharing with all surrounding states in addition to 5 others (AZ, CT, IL, KS, KY, MI, ND, OH, and VA) as reported in the PMT in October–December 2013. Testing with additional states continues, with a plan to add connections to 4 more states.
- Minnesota established many connections (16) to other states through the PMP InterConnect.²⁵

Conclusion

Grantees used funding in a variety of ways in 2013, including training, registration, data sharing, and reporting. Overall, PDMP grantees performed well in each area reviewed. PDMP systems vary in structure and design. Therefore, each system may collect different information, or collect it differently, from one state to the next. This makes direct comparisons more difficult. However, with PDMP performance measurement data, we are able to monitor PDMP grantees and their systems uniformly.

Registration in PDMP systems increased throughout the year for both licensed pharmacists and prescribers. By increasing the use of established systems, more information will be readily accessible to determine changes in prescription drug use. Some states performed much better than others increasing registrations in their PDMP systems. Illinois, Kentucky, and Ohio had very high registration rates in their PDMP systems for prescribers; on the other hand, Florida and Ohio reported high registration rates for pharmacists.

While the number of adults and youth receiving painkiller prescriptions ebbed and flowed during the year, overall there were increases in both patient groups. However, several states constituted the majority of both adults and youth reported during this review. Four grantees reported the most youth and three of those reported the most adults. Three of the four referenced grantees also had high pharmacy reporting compliance.

The reported number of patients exceeding Thresholds A and B guides doctor and pharmacy shopping occurrences. The goal is to have fewer patients exceeding these thresholds. The number of patients exceeding Thresholds A and B, though increasing throughout 2013, had significantly decreased by year end.

When more filled prescriptions are available, this increases the risk of misuse and abuse of prescribed medication due to availability. Therefore, reducing access to highly abused medications is another goal of prescription monitoring. A consistent number of patients filled prescriptions in the first three quarters of 2013. The year ended, however, with a decline in the number of prescriptions filled.

Six states fell below 70% pharmacy reporting compliance in 2013 overall. Reporting compliance increased, as did PDMP system reporting to agencies via solicited reporting. PMIX likely contributed to changes in the number and the type of PDMP-produced reports (solicited versus unsolicited). Sharing PDMP reports is important to reduce drug misuse and abuse. By using PDMP reports and ensuring pharmacy reporting compliance, states are better equipped to manage the war on prescription drugs.

Review of each performance measure suggests that grantees are on a positive track toward successful monitoring of prescription drugs in their states.

²⁵ InterConnect was developed by the National Association of Boards of Pharmacy® (NABP®) to facilitate interstate data sharing between PMPs.

Appendix A. Key Performance Measure Definitions

| Measure | Data Elements Used for Calculations | Definition | Interpretation |
|--|---|--|--|
| Percentage of Registered PDMP Prescribers | Number of prescribers registered to use the PDMP system Total number of licensed prescribers | The share of medical professionals with authority to prescribe controlled substances and who have registered to use the PDMP system | An increase may indicate that the PDMP system is expanding capacity and access to the system, which builds a more robust data collection system. |
| Percentage of Registered PDMP Pharmacists | Number of pharmacists registered to use the PDMP system Total number of licensed pharmacists | The share of professionals authorized to fill prescriptions and who are registered in the PDMP system | An increase may indicate that the PDMP system is expanding capacity and access to the system, which builds a more robust data collection system. |
| Pharmacy Reporting Compliance | Number of pharmacies that reported to the PDMP at least once during the 3-month reporting period Total number of pharmacies required to report in the PDMP | The share of pharmacies that must submit data to the PDMP for drugs they have dispensed, including pharmacies (in and out of state), hospitals, prescribers (including veterinarians), and correctional facilities | An increase may indicate expansion of PDMP systems (i.e., users, capabilities). State-level data may be more readily available. States may be better able to analyze data. |
| Percentage Change in the Number of Patients Exceeding Threshold A and B for Schedule II Drugs | Number of patients exceeding Threshold A (5 prescribers and 5 pharmacies) for Schedule II drugs in the 3 months before the last day of the reporting period | The percentage change between reporting periods in the number of patients exceeding Threshold A for Schedule II drugs | A decrease in the number of patients exceeding thresholds may indicate fewer patients attempting doctor and/or pharmacy shopping for Schedule II drugs. |
| | Number of patients exceeding Threshold B (10 prescribers and 10 pharmacies) for Schedule II drugs in the 3 months before the last day of the reporting period | The percentage change between reporting periods in the number of patients exceeding Threshold B for Schedule II drugs | |
| Percentage Change in the Number of Adults and Youth that Received Painkiller Prescriptions with a Morphine Equivalent Greater than 100 mg per Day | Number of adults who received prescriptions for painkillers with a morphine equivalent greater than 100 mg per day during the 3-month reporting period | The percentage change between reporting periods in the number of adults receiving painkiller prescriptions | A decrease in the number of adults or youth may indicate reduced access to painkillers for misuse, abuse, and potential dependency. A decrease may also indicate increased prescriber awareness. |
| | Number of youth who received prescriptions for painkillers with a morphine equivalent greater than 100 mg per day during the 3-month reporting period | The percentage change between reporting periods in the number of youth receiving painkiller prescriptions | |
| Percentage Change in the Total Number of Doses of Schedule II, III, and/or IV Drugs Dispensed to Patients Exceeding Thresholds A and B | Total number of nonliquid doses of Schedule II, III, and/or IV drugs that were dispensed to patients exceeding Threshold A (5 prescribers and 5 pharmacies) | The percentage change between reporting periods in the total number of doses dispensed to patients exceeding Threshold A for Schedule II,III, and/or IV drugs | A decrease in doses dispensed suggests that fewer patients exceeded Thresholds A and B, which may also indicate a reduction in doctor and/or pharmacy shopping. |
| | Total number of nonliquid doses of Schedule II, III, and/or IV drugs that were dispensed to patients exceeding Threshold B (10 prescribers and 10 pharmacies) | The percentage change between reporting periods in the total number of doses dispensed to patients exceeding Threshold B for Schedule II,III, and/or IV drugs | |

Appendix B. Key Performance Measure Data for PDMP Grantees: October–December 2013²⁶

| State | Grantee | Federal Award Number | Federal Award Amount (Dollars) | Percentage of Registered Prescribers | Percentage of Registered Pharmacists | Patients Exceeding Threshold A for Schedule II Drugs | Percentage Change: Patients Exceeding Threshold A for Schedule II Drugs | Patients Exceeding Threshold B for Schedule II Drugs | Percentage Change: Patients Exceeding Threshold B for Schedule I Drugs | Doses of Schedule II, III, and/or IV Drugs Dispensed to Patients Exceeding Threshold A | Percentage Change: Doses of Dispensed Schedule II, III, &/or IV Drugs Dispensed to Patients Exceeding Threshold A | Doses of Schedule II, III, and/or IV Drugs Dispensed to Patients Exceeding Threshold B | Percentage Change: Doses Dispensed to Schedule II, III, &/or IV Drugs to Patients Exceeding Threshold B | Number of Adults with Painkiller Prescriptions ²⁷ | Percentage Change: Number of Adults with Painkiller Prescriptions | Number of Youth with Painkiller Prescriptions | Percentage Change: Number of Youth with Painkiller Prescriptions | Percentage Reporting Compliance |
|-------|--|----------------------|--------------------------------|--------------------------------------|--------------------------------------|--|---|--|--|--|---|--|---|--|---|---|--|---------------------------------|
| AL | Alabama Department of Public Health | 2012-PM-BX-0008 | \$400,000 | 64% | 26% | 41 | 32% | 0 | 0% | 301,164 | 0% | 10,754 | 143% | 197 | 6% | 24 | 41% | 70% |
| AR | Arkansas Department of Health | 2011-PM-BX-0009 | \$372,989 | 16% | 29% | 12 | -40% | 0 | 0% | 116,602 | -27% | 5,667 | -40% | 107 | -7% | 5 | 25% | 91% |
| CA | California Department of Justice | 2012-PM-BX-0005 | \$375,295 | 8% | 18% | 328 | -9% | 4 | -50% | 229,023 | -11% | 2,242 | -77% | 19,248 | -5% | 1 | -67% | 95% |
| CO | Department of Regulatory Agencies | 2008-PM-BX-0016 | \$400,000 | 28% | 49% | 181 | -17% | 4 | n.m. | 290,912 | -4% | 11,367 | 251% | 303 | -10% | 7 | -30% | 75% |
| DE | Delaware Criminal Justice Council | 2011-PM-BX-0008 | \$400,000 | 65% | 42% | 19 | 12% | 0 | 0% | 22,468 | -33% | 609 | n.m. | 66 | -3% | 1 | 0% | 100% |
| FL | Florida Department of Health | 2013-PM-BX-0010 | \$399,950 | 11% | 42% | 213 | -2% | 6 | 0% | 586,487 | -5% | 11,203 | -21% | 970 | -2% | 9 | 0% | 94% |
| GA | State of Georgia | 2011-PM-BX-0004 | \$400,000 | 9% | 28% | 138 | -22% | 5 | -55% | 688,018 | -86% | 49,166 | -89% | 284 | -29% | 3 | 50% | 110% |
| ID | Idaho Board of Pharmacy | 2010-PM-BX-0007 | \$214,216 | 42% | 50% | 4 | -43% | 0 | 0% | 42,355 | -21% | 1,925 | n.m. | 0 | 0% | 0 | 0% | 100% |
| IL | Illinois Department of Human Services | 2012-PM-BX-0002 | \$400,000 | 29% | 40% | 23 | -43% | 0 | -100% | 1,822 | -53% | 113 | -58% | 8,249 | -15% | 1,003 | -6% | 95% |
| IN | Indiana Professional Licensing Agency | 2012-PM-BX-0009 | \$394,802 | 37% | 40% | 54 | -17% | 0 | -100% | 429,237 | -9% | 5,378 | -12% | 70,486 | -1% | 498 | -22% | 100% |
| KS | Kansas State Board of Pharmacy | 2012-PM-BX-0010 | \$400,000 | 30% | 35% | 37 | -8% | 1 | n.m. | 4,820 | -65% | 0 | 0% | 73,099 | >-1% | 512 | 4% | 51% |
| KY | Cabinet for Health and Family Services | 2012-PM-BX-0001 | \$167,793 | 85% | 83% | 14 | -44% | 0 | 0% | 9,817 | -10% | 0 | 0% | 0 | 0% | 0 | 0% | 83% |
| MA | Massachusetts Department of Public Health | 2011-PM-BX-0002 | \$400,000 | 33% | 17% | 178 | -35% | 5 | 400% | 288,399 | -31% | 4,518 | -41% | 32,235 | 31% | 4 | 100% | 83% |
| MD | Department of Health & Mental Hygiene, Alcohol & Drug Abuse Administration | 2013-PM-BX-0013 | \$400,000 | 2% | 1% | 279 | 11% | 12 | 9% | 420,647 | 45% | 24,871 | 16% | 266 | 3% | 1 | 0% | 101% |

²⁶ Commonwealth of Massachusetts, Norfolk District Attorney (2013-PM-BX-0009), New York County District Attorney's Office (2013-PM-BX-0012), Fairfield County Ohio Board of Commissioners (2013-PM-BX-0011), Jackson County Oregon (2013-PM-BX-0008), and Lac Courte Oreilles Band of Lake Superior Chippewa Indians (2013-PM-BX-0014) are grantees unable to provide valid PDMP data due to inaccessibility.

Nonmeaningful changes in percentage change are reported in the table as n.m.

NA indicates that the measure is not applicable.

²⁷ The PDMP PMT collects data on the distribution of painkillers with a morphine equivalent greater than 100 mg per day.

| State | Grantee | Federal Award Number | Federal Award Amount (Dollars) | Percentage of Registered Prescribers | Percentage of Registered Pharmacists | Patients Exceeding Threshold A for Schedule II Drugs | Percentage Change: Patients Exceeding Threshold A for Schedule II Drugs | Patients Exceeding Threshold B for Schedule II Drugs | Percentage Change: Patients Exceeding Threshold B for Schedule I Drugs | Doses of Schedule II, III, and/or IV Drugs Dispensed to Patients Exceeding Threshold A | Percentage Change: Doses of Dispensed Schedule II, III, &/or IV Drugs Dispensed to Patients Exceeding Threshold A | Doses of Schedule II, III, and/or IV Drugs Dispensed to Patients Exceeding Threshold B | Percentage Change: Doses Dispensed to Schedule II, III, &/or IV Drugs to Patients Exceeding Threshold B | Number of Adults with Painkiller Prescriptions ²⁷ | Percentage Change: Number of Adults with Painkiller Prescriptions | Number of Youth with Painkiller Prescriptions | Percentage Change: Number of Youth with Painkiller Prescriptions | Percentage Reporting Compliance |
|-------|--|----------------------|--------------------------------|--------------------------------------|--------------------------------------|--|---|--|--|--|---|--|---|--|---|---|--|---------------------------------|
| MD | Governor's Office of Crime Control & Prevention | 2011-PM-BX-0011 | \$400,000 | 2% | 1% | 279 | 11% | 12 | 9% | 420,647 | 45% | 24,871 | 16% | 266 | 3% | 1 | 0% | 101% |
| ME | Maine Department of Health and Human Services | 2012-PM-BX-0006 | \$373,201 | 94% | 22% | 13 | 18% | 0 | 0% | 20,579 | -20% | 0 | 0% | 132 | -1% | 6 | -33% | 108% |
| MN | Minnesota Board of Pharmacy | 2011-PM-BX-0001 | \$371,440 | 24% | 37% | 159 | -26% | 0 | -100% | 286,738 | -20% | 4,029 | -23% | 178 | 5% | 1 | -50% | 95% |
| MT | Montana Board of Crime Control | 2013-PM-BX-0001 | \$380,729 | 18% | 34% | 0 | 0% | 0 | 0% | 0 | 0% | 0 | 0% | 0 | 0% | 0 | 0% | 99% |
| NC | North Carolina Department of Health and Human Services | 2012-PM-BX-0004 | \$400,000 | 33% | 45% | 162 | -9% | 1 | n.m. | 391,172 | -5% | 2,497 | -66% | 457 | 7% | 6 | 0% | 120% |
| OH | Ohio State Board of Pharmacy | 2011-PM-BX-0003 | \$390,869 | 39% | 74% | 303 | -4% | 1 | 0% | 676,178 | -18% | 8,447 | -3% | 92,136 | -1% | 323 | 2% | 100% |
| OR | Oregon Health Authority ²⁸ | 2013-PM-BX-0002 | \$400,000 | 24% | 28% | 64 | NA | 0 | NA | 126,413 | NA | 2,252 | NA | 0 | NA | 0 | NA | 108% |
| RI | State of Rhode Island | 2008-PM-BX-0008 | \$400,000 | 16% | 20% | 14 | 33% | 0 | 0% | 11,510 | -45% | 269 | n.m. | 8,543 | -7% | 25 | -4% | 89% |
| SD | South Dakota State Board of Pharmacy | 2013-PM-BX-0003 | \$400,000 | 24% | 56% | 3 | -40% | 0 | 0% | 16,298 | -21% | 0 | 0% | 31 | 15% | 6 | -14% | 76% |
| WA | Washington State Department of Health | 2012-PM-BX-0003 | \$389,014 | 20% | 36% | 88 | -4% | 0 | 0% | 244,916 | 8% | 4,337 | 23% | 499 | >-1% | 2 | -33% | 99% |
| WI | Wisconsin Department of Safety and Professional Services | 2011-PM-BX-0006 | \$399,284 | 9% | 27% | 68 | -38% | 1 | n.m. | 226,464 | -27% | 957 | -81% | 421 | -10% | 5 | -29% | 89% |

²⁸ Grantee closed out award 2010-PM-BX-0003 in March 2013 and started 2013-PM-BX-0002 in October 2013. Therefore, no percentage change could be calculated between the third and fourth quarters.