



Prescription Monitoring Program Center of Excellence

## Briefing on PMP Effectiveness

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### 3.2 Prescription Monitoring Programs: An Effective Tool in Curbing the Prescription Drug Abuse Epidemic

March, 2012

This project was supported by Grant No. 2009-PM-BX-K044 awarded by the Bureau of Justice Assistance. The Bureau of Justice Assistance is a component of the Office of Justice Programs, which also includes the Bureau of Justice Statistics, the National Institute of Justice, the Office of Juvenile Justice and Delinquency Prevention, and the Office for Victims of Crime. Points of view or opinions in this document are those of the author and do not represent the official position or policies of the U.S. Department of Justice.



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# Prescription Monitoring Programs: An Effective Tool in Curbing the Prescription Drug Abuse Epidemic

### Summary

Evidence is accumulating that prescription monitoring programs (PMPs) are effective in reducing diversion of controlled substances, improving clinical decision-making, and assisting in other efforts to curb the prescription drug abuse epidemic.

### The Prescription Drug Abuse Epidemic

Addiction, overdoses and deaths involving non-medical prescription drug use, especially narcotic pain relievers, have risen dramatically over the last decade, surpassing those due to illicit drugs such as heroin and cocaine. In 2008, drug-related poisonings were the second leading cause of death due to unintentional injuries in the United States; the number of deaths related to prescription opioid use has more than tripled since 1999.<sup>1</sup> A recent study estimated that in 2006 the total cost in the United States of nonmedical use of prescription opioids was \$53.4 billion.<sup>2</sup> More information regarding the epidemic is available on the PMP Center of Excellence website.<sup>3</sup>

### The Role of Prescription Monitoring Programs (PMPs)

Currently there are 48 states and one US Territory with legislation that establishes a PMP; thirty-eight states have operational PMPs. PMPs collect data from pharmacies on dispensed controlled substance prescriptions. PMPs are important tools in the effort to curb major sources of prescription drug diversion: prescription fraud, forgeries, doctor shopping<sup>4</sup> and illicit, medically unwarranted prescribing on the part of some practitioners and pharmacists. PMPs therefore serve an essential function in combating the prescription drug abuse epidemic. More information on PMPs is available on the Alliance of States with Prescription Monitoring Programs website.<sup>5</sup> Below, a sampling of reports and studies is presented to demonstrate that PMPs can play a role in improving prescribing and reducing diversion of controlled substances, saving lives and taxpayers' money.

### States with PMPs use PMP data to improve clinically appropriate prescribing and reduce doctor shopping.

- A study of medical providers in Ohio emergency departments found that 41% of those given PMP data altered their prescribing for patients receiving multiple simultaneous narcotics prescriptions. Of these providers, 61% prescribed no narcotics or fewer narcotics than originally planned, while 39% prescribed more. This indicates that PMP data can help inform sound clinical decision-making to insure prescriptions are medically necessary, reducing illicit use of controlled substances.<sup>6</sup>
- In California, 74% of physician responders to a survey indicated they had changed their prescribing practices to a patient as a result of using PMP Patient Activity Reports (PAR), and 91% rated the “effectiveness of the PAR in maintaining the care and health of your patient” as good to excellent.<sup>7</sup>
- A 2010 survey of users of Kentucky’s PMP, Kentucky All Schedule Prescription Electronic Reporting (KASPER), found that PMP reports were an aid to clinical practice, with 70% of prescribers and dispensers judging them “very” or “somewhat”

important in helping them decide what drug to prescribe a patient.<sup>8</sup> The survey also found that nearly 90% of prescribers and pharmacists responding to the survey “refused to prescribe or dispense a controlled substance based on the information contained in a KASPER report.”

- In September 2008, Louisiana required pharmacies to begin submitting data to the new PMP on January 1, 2009, including an identification number from persons picking up prescriptions. Many pharmacies then began requiring customers to show ID, to record the numbers, and to inform customers about the new policy. Five individuals identified by the PMP as doctor shoppers, who each obtained an average of 16.9 controlled substances prescriptions per month prior to September, dropped to 0 prescriptions by December. Louisiana attributes this important change to the PMP implementation.<sup>9</sup>
- An analysis by Wyoming’s PMP indicates that as prescribers and pharmacists received unsolicited PMP reports concerning likely doctor shoppers, and as they requested more reports on patients, the number of likely doctor shoppers showing up in the PMP database declined markedly. This suggests that PMP reports prompt prescribers and pharmacists to reduce the availability of controlled substances to patients engaged in doctor shopping, reducing costs related to prescriptions, addiction and abuse.<sup>10</sup>
- An analysis of data from the Nevada PMP indicates that for those probable doctor shoppers for whom unsolicited reports were sent, the average number of dosage units of controlled substances received, as well as doctors and pharmacies visited, decreased in subsequent years.<sup>11</sup>
- As the Massachusetts PMP began sending unsolicited PMP reports regarding possible doctor shoppers to prescribers in 2010, prescribers were asked about the usefulness of the reports. Of those who responded, only 8% said they were “aware of all or most of other prescribers,” and only 9% said “based on current knowledge, including the report, the patient appears to have legitimate medical reason for prescriptions from multiple prescribers.” This indicates that proactive reporting of PMP data alerts prescribers about possible doctor shopping, which in turn can inform their prescribing practices.<sup>12</sup>
- An impact evaluation of the Maine PMP found that 97% of prescribers and pharmacies responding to a survey found the PMP to be useful in monitoring prescriptions and controlling doctor shopping.<sup>13</sup>

### **States with PMPs, and states with pro-active PMPs, have lower rates of treatment admissions, reduced doctor shopping and diversion.**

- A national evaluation comparing states with and without PMPs and focusing primarily on Schedule II controlled substances (e.g., opioids such as oxycodone) found that proactive PMPs were associated with slower growth in the per capita availability of prescription pain relievers and stimulants, as well as lower rates of treatment admissions for abuse of these drugs.<sup>14</sup>
- A study comparing PMP states with non-PMP states found that PMP states had decreases in the amount of opioid shipments and prescription opioid admission rates.<sup>15</sup>

- A study of New York's PMP suggests that its reporting of benzodiazepine prescriptions helped reduce doctor shopping and diversion of these drugs.<sup>16</sup>

### **States with PMPs have smaller increases in opiate exposures related to abuse and misuse, lower outpatient drug claims.**

- An analysis of poison center data from 2003 to mid- 2009 found that in states with PMPs, calls concerning intentional exposures to opioids (an indicator of opioid abuse or misuse) increased 0.2% per quarter, while in states without PMPs these calls increased 1.9% ( $P = 0.036$ ).<sup>17</sup>
- The presence of PMPs collecting prescription information on Schedule II controlled substances is associated with lower outpatient drug claims compared with states not collecting such information.<sup>18</sup>

### **States *without* PMPs are more likely to experience higher rates of controlled substance distribution.**

- An independent evaluation of Kentucky's PMP noted that in 2006, distribution of oxycodone was highest in Florida compared to other states on interstate Route I-75, while distribution of hydrocodone was highest in Tennessee. Since 2004, oxycodone distribution in Kentucky, a state with a well-established prescription monitoring program, rose at a much lower rate than in either Florida or Tennessee, neither of which had active PMPs during this period.<sup>19</sup>

### **PMP data assist in investigations of drug diversion, reducing investigation times.**

- A 2010 survey found that nearly three quarters (73%) of law enforcement officers who used Kentucky's PMP (KASPER) strongly agreed that "KASPER is an excellent tool for obtaining evidence in the investigative process."<sup>20</sup>
- An evaluation of Virginia's PMP found that investigation times were reduced by use of PMP data.<sup>21</sup>
- A 2002 Government Accountability Office report showed that the average times for investigations of doctor shoppers in Kentucky dropped from 156 days to 16 days after implementation of KASPER. The same report found that average investigation times for doctor shoppers dropped markedly following the implementation of Nevada's PMP, from 120 days to 20 days, reducing expenses related to investigations.<sup>22</sup>
- A case study of a Kentucky drug diversion investigator suggests that PMP data are important aids in increasing the efficiency of investigations.<sup>23</sup>

### **PMPs can reduce need for law enforcement, help monitor compliance and abstinence.**

- Nevada's Pre-Criminal Intervention Program uses PMP data to identify, enroll, and monitor individuals to help them stop doctor shopping, making law enforcement involvement unnecessary and saving taxpayers the cost of investigations, prosecutions and incarceration.<sup>24</sup>
- Drug courts in Kentucky use PMP data to help monitor abstinence from prescription drugs, helping clients achieve sobriety and stability, thus improving the

court's ability to assure compliance and reducing costs related to drug diversion and abuse.<sup>25</sup>

### **PMP data can assist in substance abuse treatment, medical examiner practice.**

- Substance abuse treatment programs in Maine consult PMP data when admitting patients into treatment (patient consent required) to help validate patient self-reports on use of medications.<sup>26</sup>
- A report from the Medical Director of an opioid addiction treatment program indicates that PMP data are an important clinical tool in monitoring use of controlled substances by patients addicted to opioids, keeping patients safe and increasing the effectiveness of treatment.<sup>27</sup>
- Medical examiners in Virginia consult PMP data as standard procedure in guiding autopsies and in conducting forensic investigations.<sup>28</sup>

### **PMP data show promise in assisting drug abuse prevention and surveillance efforts.**

- The PMP Center of Excellence is developing methods to analyze PMP data to identify doctor shopping hot spots that can help state and community drug abuse prevention organizations target their interventions for maximum impact.<sup>29</sup>
- Analyses of PMP data can track trends and geographic patterns of problematic prescribing, such as possible pill mills,<sup>30</sup> as well as the characteristics and demographics of those at risk for prescription drug abuse, including youth and young adults.<sup>31</sup>

### **Physicians express support for PMPs.<sup>32</sup>**

- “This has been a huge benefit for our clinic and managing Pt’s narcotic use. It has improved our clinic and our time required for calling all the Pharmacies in the area to find out if our Pt’s are being compliant with medications and weed out those who are not, to provide for those Pt’s who really need our care.” – Mississippi Pain Management Specialist
- “We would like to take the time to express our gratitude for all your efforts in the CURES program. This program is a wonderful resource tool in tracking our controlled substance prescriptions and aiding in prevention of substance abuse.” – California Pain Management Specialist.
- “As an emergency physician, I have found the OARRS program [Ohio PMP] extremely useful. I am shocked daily by the number of prescriptions and prescribers that some of my patients possess.” - Ohio Physician
- “I appreciate this website greatly!!! As a hospitalist it makes my life much easier to verify drug history and doctor shoppers.” – Ohio Physician
- “Instant access to controlled substance history is critical to safe management of patients.” – Massachusetts Physician<sup>33</sup>

### Investigators find PMPs an invaluable resource.<sup>34</sup>

- “As far as enforcement of the Controlled Substance Act, Prescription Monitoring Program is one of the best assets we have ever had. The countless hours saved by the Agents being able to pull the profile compared to the way Agents used to have to go to each pharmacy to get a profile have saved the State a large amount of money in salaries and vehicle expense.” - Agent, Mississippi Bureau of Narcotics
- “This database is like cell phones and e-mail - what the heck did we do without it?” - Pharmacy Diversion Investigator, Ohio Narcotics Agency
- "... the monitoring system in MS has been great. It has helped me identify alleged over prescribing registrants, possible doctor shopping patients, as well as possibly impaired practitioners writing prescriptions for themselves.” - DEA Diversion Investigator
- “After receiving a complaint, I can request a report and know in just a few minutes if there is a case to investigate or not... I cannot say enough about KASPER and how valuable it is in my day to day investigations. If you, as an investigator, are not utilizing KASPER, you are limiting your resources and missing valuable information.” – KY State police officer<sup>35</sup>

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Note: For inquiries concerning this report, please contact the PMP Center of Excellence at <http://www.pmpexcellence.org> or call 781-736-3909.

Endnotes

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- <sup>2</sup> Hansen et al. Economic costs of nonmedical use of prescription opioids. *Clinical Journal of Pain*, 2:3. March, 2011. [www.ncbi.nlm.nih.gov/pubmed/21178601](http://www.ncbi.nlm.nih.gov/pubmed/21178601)
- <sup>3</sup> See the PMP Center of Excellence page on the prescription drug abuse epidemic at <http://www.pmpexcellence.org/drug-abuse-epidemic>
- <sup>4</sup> Doctor shopping, punishable by law in some states, is commonly understood as an individual's obtaining prescriptions from multiple prescribers and pharmacies without revealing to each prescriber and pharmacy that the others are involved.
- <sup>5</sup> See the FAQ on PMPs at the Alliance of States with Prescription Monitoring Programs at <http://www.pmpalliance.org/content/prescription-monitoring-frequently-asked-questions-faq>
- <sup>6</sup> D. Baehren et al., "A statewide prescription monitoring program affects emergency department prescribing behaviors," *Annals of Emergency Medicine*, 2009, <http://www.ncbi.nlm.nih.gov/pubmed/20045578>
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- <sup>11</sup> PMP Center of Excellence, "Nevada's Proactive PMP: The Impact of Unsolicited Reports" October, 2011. [http://www.pmpexcellence.org/sites/all/pdfs/nevada\\_nff\\_10\\_26\\_11.pdf](http://www.pmpexcellence.org/sites/all/pdfs/nevada_nff_10_26_11.pdf)
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- <sup>14</sup> R. Simeone and L. Holland, "An evaluation of prescription drug monitoring programs," Simeone Associates, Inc., 2006, <http://www.simeoneassociates.com/simeone3.pdf>. See also "State prescription monitoring programs highly effective," Carnevale Associates, 2007, [http://www.pmpexcellence.org/pdfs/pdmp\\_info\\_brief2.pdf](http://www.pmpexcellence.org/pdfs/pdmp_info_brief2.pdf)
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- <sup>17</sup> Reifler et al, Do Prescription Monitoring Programs Impact State Trends in Opioid Abuse/Misuse?, *Pain Medicine*, 2012 <http://onlinelibrary.wiley.com/doi/10.1111/j.1526-4637.2012.01327.x/abstract>
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