



Prescription Monitoring Program Center of Excellence at Brandeis

## Notes from the Field

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NF 2.5 Nevada's Proactive PMP: The Impact of Unsolicited Reports

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## Notes from the Field

### Nevada's Proactive PMP: The Impact of Unsolicited Reports

#### Overview

The Nevada Prescription Monitoring Program (PMP) was conceived as an alternative to law enforcement in addressing prescription drug diversion and abuse. From its inception in 1997, administrators sent prescribers and pharmacists unsolicited prescription history reports on individuals who were probable doctor shoppers, an innovation for PMPs. Data from Nevada indicate that in the months following reports, these individuals reduced their purchases of controlled substances. Moreover, for individuals reported on, the average number of dosage units received, as well as doctors and pharmacies visited, decreased in subsequent years. Unsolicited reports also generated interest in the PMP among medical providers and other stakeholders, such that they began requesting reports on their own initiative (solicited reports). The number of solicited reports distributed by the PMP rapidly increased during the first years of the program. The Nevada PMP, now a largely automated, cost-efficient system, continues to play an important role in reducing the diversion of controlled substances in Nevada.

#### Inception: pro-active reporting from the outset

In the early 1990's, Nevada faced a serious public health threat from prescription drug abuse, fueled by rapid population growth and an increase in the prescribing of pain medications. The developers of the Nevada PMP, Keith Macdonald, R.Ph, then Executive Director of the Nevada State Board of Pharmacy, and Joanee Quirk, the PMP Program Administrator, conceived it as a practitioner-focused, medically-oriented alternative to law enforcement in reducing the diversion of controlled substances and the associated addiction, overdoses and deaths. As they described the pre-PMP situation, drug diversion investigators would often spend days visiting pharmacies and prescribers, compiling evidence in support of relatively few cases. A practitioner-focused PMP, they reasoned, could pro-actively transmit data on suspicious purchases of controlled substances to prescribers and pharmacists, as well as to drug investigators.<sup>1</sup> Many of these practitioners were likely unaware that some of their patients were probable doctor shoppers. Rather than treat all instances of suspected doctor shopping as targets for criminal investigation, medical providers could identify and help patients who might be abusing or addicted to prescription drugs. Clinical interventions might include changing the amount or type of drugs prescribed, requiring that a patient see only one prescriber, conducting a substance abuse brief intervention, or referring the patient to a treatment specialist for pain or substance abuse. Compared to diversion investigations alone, the practitioner approach would allow many more individuals to get help for behavioral and

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<sup>1</sup> Drug investigator use of PMP data is described in the COE Notes from the Field publication "Perspective from Kentucky: Using PMP Data in Drug Diversion Investigations," available at [http://www.pmpexcellence.org/sites/all/pdfs/NFF\\_kentucky\\_5\\_17\\_11\\_c.pdf](http://www.pmpexcellence.org/sites/all/pdfs/NFF_kentucky_5_17_11_c.pdf).

medical problems, for less cost, and without incurring drug diversion charges and a possible criminal record.

Legislation enabling the PMP was introduced in 1995 and passed with support from a broad-based constituency that formed the Prescription Controlled Substance Abuse Prevention Task Force. Members included Nevada law enforcement agencies, prescribers, pharmacists, and medical and dental boards. Law enforcement, which was primarily focused on investigations involving street drugs (heroin, cocaine, marijuana), agreed that the PMP-medical approach was appropriate for most low-level controlled substance diversion cases, so no turf issues arose. The Nevada Board of Pharmacy took responsibility for organizing and housing the PMP with solid support from local and chain pharmacies, who understood the seriousness of the prescription drug abuse problem. The pharmacies also had access to the information technology infrastructure to enable the reporting of prescription data. The PMP began operations in 1997 and was financially supported in its first two years by gifts from the state medical board and pharmaceutical companies totaling approximately \$250,000.<sup>2</sup> Since then, the Nevada PMP has received Federal grants as well as funds from a small fee charged to doctors for the Nevada state license to prescribe controlled substances.

Quirk and Macdonald recalled being apprehensive about how doctors, pharmacists and the wider community would react to unsolicited reporting of PMP data, since it had never been tried before by any PMP. Would concerns about confidentiality, misuse of prescription information, and heavy-handed surveillance of prescribing spark resistance? Would practitioners bother to read patient prescription histories and use them in their clinical decision-making? How well would unsolicited reports work as a strategy to jump-start the Nevada PMP? The first reports were faxed to providers in April of 1997.

### Impact of unsolicited reports

Overall, the response was largely positive and the results encouraging. Except for a few critical newspaper editorials, no significant opposition to the PMP or its unsolicited reporting materialized. This was most likely because the Task Force had sought input from all affected constituencies and had conducted advance education regarding the PMP and its objectives. According to Quirk and Macdonald, the unsolicited reports took providers by surprise, but quickly generated interest in the PMP since many prescribers were unaware that some of their patients were possible doctor shoppers. This resulted in a rapid increase in practitioner-initiated requests for more PMP data, that is, *solicited* reports (see Figure 1, page 7).

Data from the first years of the Nevada PMP suggest that unsolicited reporting, perhaps in combination with solicited reports, helped to reduce doctor shopping. Nevada's

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<sup>2</sup> As reported to the National Conference of State Legislatures, Nevada received \$265,000 for the first two years of its program's operations, including two-year grants from two pharmaceutical companies and the state Board of Medical Examiners, see <http://www.ncsl.org/default.aspx?tabid=14428>.

approach to generating unsolicited reports, innovative for its time, became the model adopted by most states that do such reporting. Individuals were identified in the Nevada PMP database using criteria for suspected doctor shopping: meeting or exceeding a threshold for numbers of prescribers and pharmacies visited within a given time period. In 1997, the first year of operation, 4,179 individuals met this threshold, increasing to 8,253 in 2002, a rise consistent with the increase in controlled substance prescriptions in Nevada over the same time period.<sup>3</sup> Those individuals with the greatest number of prescribers and pharmacies were selected for unsolicited reporting each year, starting with 186 in 1997 and rising to 652 in 2002 (see Figure 1). More individuals were reported on in each successive year as data analysis and reporting procedures became more efficient and as more resources were made available to the PMP. The threshold individuals had to meet or exceed in order to qualify for unsolicited reporting stayed the same during these years.

Individuals reported on exhibited decreases in their prescription purchases as measured by dosage units in the months after reports were issued (Figure 2, page 7) and in each year (Figure 3, page 8). In successive years the average number of prescribers and pharmacies visited (Figure 4, page 8) and average number of dosage units (Figure 3) declined for individuals for whom unsolicited reports were sent in that year (the blue line in Figure 1 shows the number reported on each year).<sup>4</sup> This suggests that sending PMP data to medical providers had both a specific and general effect: specific in that controlled substances obtained by individuals reported on in a given year were reduced after unsolicited reports were issued, and general in that the overall level of doctor shopping declined for individuals who most exceeded the threshold in successive years.

### How PMP data provided to practitioners reduces doctor shopping<sup>5</sup>

A plausible explanation for these effects is that as medical providers in Nevada learned of the PMP and about their patients' prescription histories, via both unsolicited and solicited reports (increasingly the latter as word spread about the PMP), they took this information into account in their subsequent prescribing for some patients. Once a provider discovers that a patient is obtaining multiple simultaneous prescriptions, especially for the same controlled substance, she will likely take steps to ensure that the patient is receiving only those prescriptions that are medically necessary. As more

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<sup>3</sup> The increase in those reaching the threshold, up 97.5%, is comparable to the increase in controlled substance prescriptions dispensed in Nevada from 1997 to 2002, from 1,761,796 to 3,236,112, up 83.7%.

<sup>4</sup> Persons reported on in each successive year may have included some of the same individuals, but they were independently selected in each year by being those who most exceeded the doctor shopping threshold.

<sup>5</sup> This section is adapted from the Center of Excellence Notes from the Field report "Trends in Wyoming PMP Prescription History Reporting: Evidence for a Decrease in Doctor Shopping?," available at [http://www.pmpexcellence.org/sites/all/pdfs/NFF\\_wyoming\\_rev\\_11\\_16\\_10.pdf](http://www.pmpexcellence.org/sites/all/pdfs/NFF_wyoming_rev_11_16_10.pdf).

providers in Nevada learned about their patients' prescription histories and took appropriate action, it became more difficult for doctor shoppers to obtain medically unnecessary prescriptions from these providers. This is reflected in PMP data by the post-report decrease in dosage units obtained by individuals reported on, as well as the successive yearly decline in the number of prescribers and pharmacies visited by individuals who most exceeded the threshold for probable doctor shopping.

### Limitations

Certain limitations apply to the data and conclusions of this report. As shown in figure 3, when comparing the 12 month periods pre and post the sending of unsolicited reports, the average number of doses for individuals reported on shows a sharp drop. In figure 2, a similar decline is shown in the months after reports were issued. It's therefore reasonable to conclude that PMP reporting likely played a role in reducing prescriptions obtained by suspected doctor shoppers. However, how much of this reduction is attributable to *unsolicited* reports alone is unclear since other factors may have played a role, including solicited reports sent to providers and other influences on an individual's behavior, such as law enforcement and trends unrelated to drug control. This uncertainty, plus the possibility of regression to the mean, highlights the importance of including a comparable non-intervention group of possible doctor shoppers (for whom no reports are sent) in a rigorous assessment of the impact of unsolicited reporting.<sup>6</sup>

Another limitation of this report concerns the fate of individuals showing declines in drug purchases and prescribers and pharmacies visited as measured in PMP data. Although such declines are consistent with reduced prescription drug use and better clinical practice, the possibility that some individuals found other sources of drugs that escaped detection by the PMP can't be ruled out. Doctor shoppers may travel to other states to find prescriptions, buy drugs from street dealers, or resort to theft. Those addicted to prescription opiates may turn to heroin as a sometimes readily available and cheaper alternative. Such outcomes can be mitigated by providing good diagnostic and clinical care to patients with substance abuse or chronic pain syndromes. Studies of the diagnosis, treatment, referral and discharge history of patients identified as possible doctor shoppers, along with information on diversion activities and arrests, would help fill in the story behind changes in their PMP data.

### Conclusion

Despite these limitations, data from the early years of Nevada's PMP suggest that the decision to issue unsolicited reports paid off, both as a strategy to generate awareness and interest in the PMP, and as a tool to improve clinical practice and change patient

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<sup>6</sup> The Centers for Disease Control has recently initiated studies of the impact of unsolicited reporting using randomly selected intervention and non-intervention groups.

behavior. Nevada's unsolicited reporting initiative set an important precedent in the design and goals of an effective PMP, one that proactively engages the resources of the medical community in fighting prescription drug abuse.<sup>7</sup> Ω

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

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<sup>7</sup> Another Nevada PMP initiative is described in the Center of Excellence Notes from the Field report "Staying Clear of the Law *and* Addiction: Nevada's Pre-Criminal Intervention Program," at [http://www.pmpexcellence.org/sites/all/pdfs/2\\_nevada\\_pcip\\_nff\\_1\\_19\\_11.pdf](http://www.pmpexcellence.org/sites/all/pdfs/2_nevada_pcip_nff_1_19_11.pdf).

Figure 1

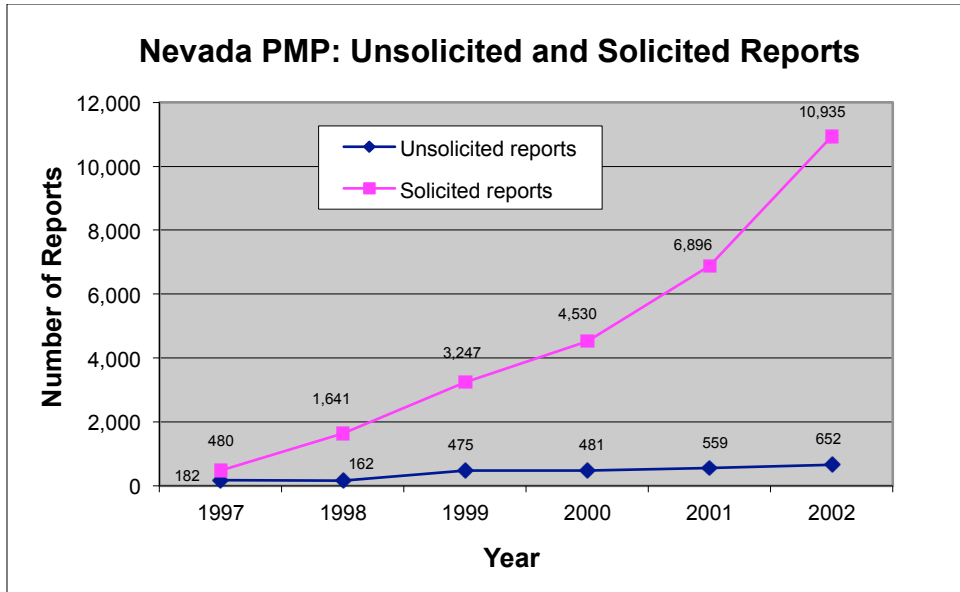
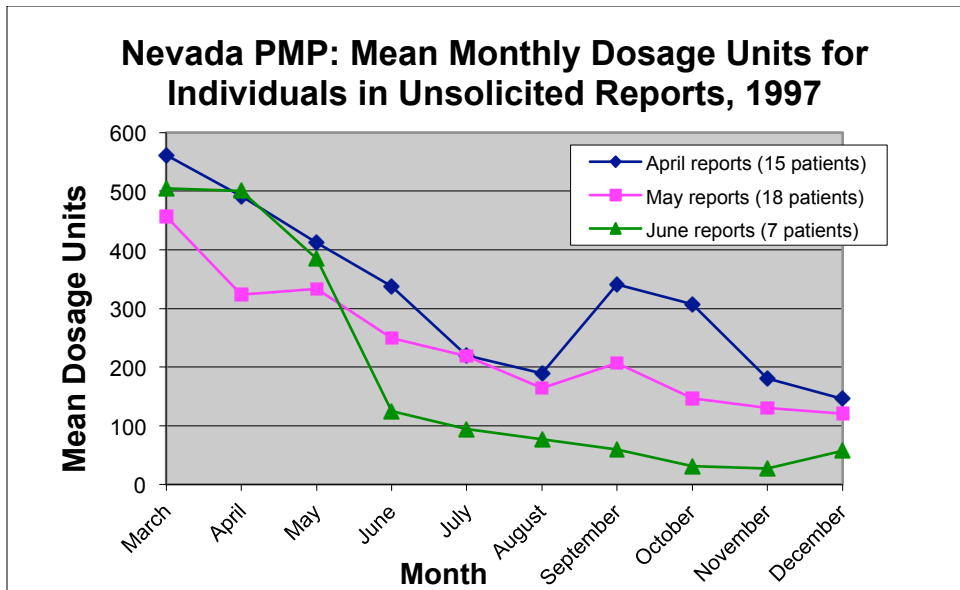
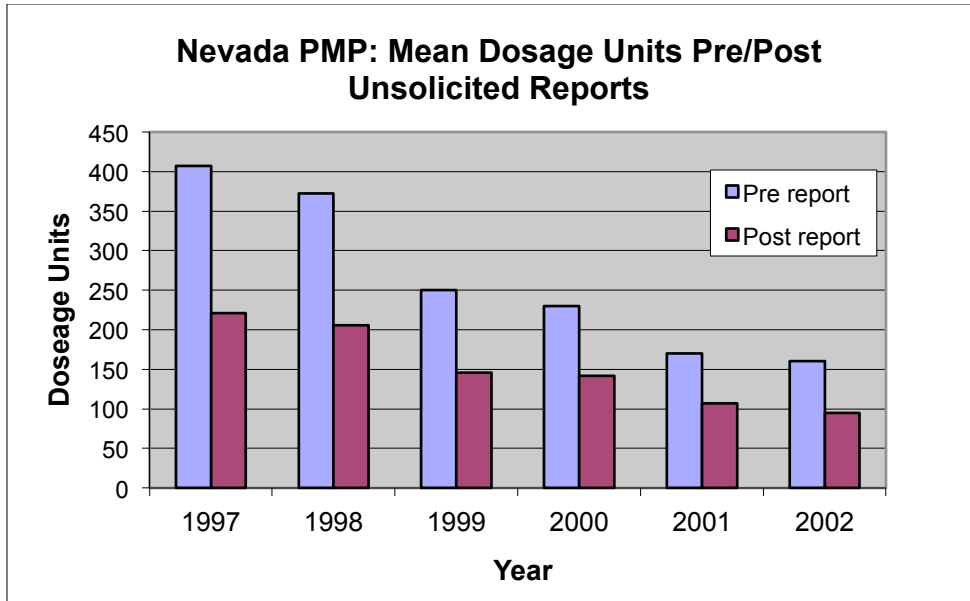


Figure 2



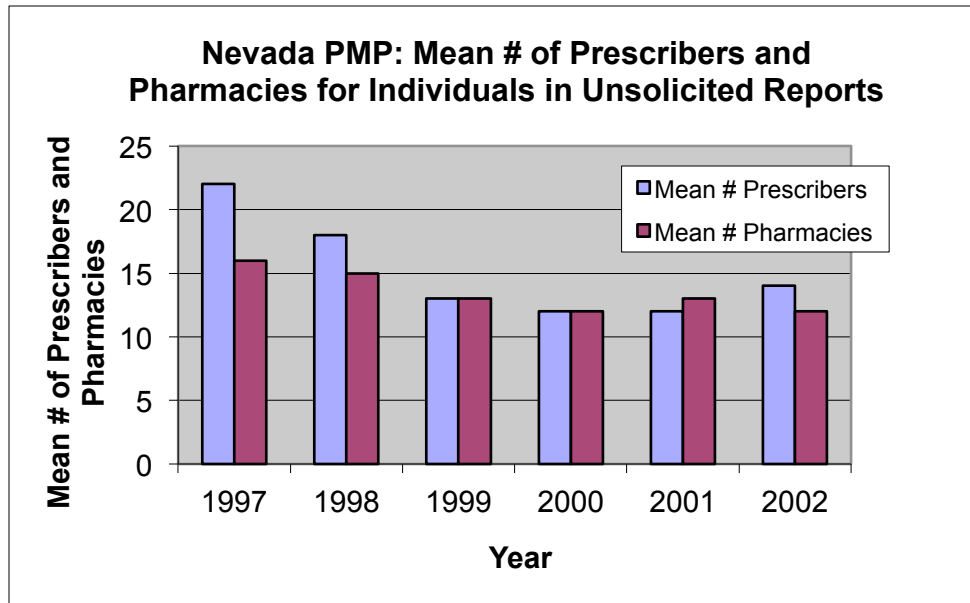
Note: Each line represents the mean monthly number of dosage units for each group of individuals for whom unsolicited reports were sent. The group represented by the blue line were reported on in April (15 individuals), those by the magenta line in May (18), and those by the green line in June (7).

Figure 3



Note: Pre and post report periods were each 12 months. See Figure 1 for the number of individuals reported on in each year (blue line).

Figure 4



Note: Means are calculated for numbers of prescribers and pharmacies visited by individuals reported on within each calendar year. See Figure 1 for the number of individuals reported on in each year (blue line).