ANALYSIS OF ALASKA'S PRESCRIPTION DRUG MONITORING PROGRAM

AWARENESS AND FEEDBACK QUESTIONNAIRE

Submitted by

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Abstract

A state law mandating the Prescription Drug Monitoring Program (PDMP) registration, review, and reporting of and by practitioners and pharmacists was implemented in Alaska in 2017. In order to reduce opioid overprescribing, practitioners and pharmacists must make regular use of the PDMP database, but PDMP users have cited numerous barriers to regular use. Within 1 year of legislation mandating PDMP use, a survey of PDMP awareness, knowledge, and behavior was administered to several thousand licensed physicians, prescribers, and pharmacists in Alaska. Associations were found between PDMP user knowledge, opinions, characteristics, and their behaviors. Behaviors examined included reviewing PDMP for every patient (versus those that look suspicious, have known substance misuse, or have known behavioral health issues) and changing prescribing practices based on unsolicited reports. Insights into practitioners and pharmacists who use Alaska's PDMP will inform education and training efforts with the ultimate goal of enhancing PDMP use in the short-term and impacting opioid and heroin misuse and overdose in the long term. The purpose of this study was to further understand knowledge of and interaction with the PDMP system by physicians, prescribers, and pharmacists in order to enhance PDMP use and effectiveness.

Characteristics of Alaska PDMP

- Delegates allowed
- Unsolicited reports provided regularly
- Timely PDMP entry required
- Interstate data sharing with seven states
- NOT integrated with electronic health record
- NO automatic registration
- NO enhanced user interface

INTRODUCTION

House Bill 159 required registration, reviewing, and reporting for all prescriptions written for federally scheduled II - IV controlled substances (with minor exceptions). All practitioners and pharmacists meeting mandatory registration criteria were required to sign up and use the Alaska Prescription Drug Monitoring Program (AKPDMP or PDMP) by July 2017. As part of evaluating the functionality and usefulness of the PDMP, registered PDMP users were asked to participate in an awareness and feedback questionnaire. The purpose of the questionnaire was to further understand the general knowledge and interaction with the PDMP system by physicians, prescribers, and pharmacists in order to enhance PDMP use and effectiveness.

Funded by the Data-Driven Prevention Initiative (DDPI) of the Centers for Disease Control and Prevention (CDC), the State of Alaska is working to examine efforts that reduce opioid misuse and addiction in Alaska.

The Prescription Drug Overdose DDPI awarded funds to 13 states to support efforts to end the opioid overdose epidemic in the United States. This program assisted states in advancing and evaluating their actions to address opioid misuse, abuse, and overdose. That includes increasing the ability to:

1. Improve data collection and analysis around opioid misuse, abuse, and overdose;
2. Develop strategies that impact behaviors driving opioid dependence and abuse; and
3. Work with communities to develop comprehensive opioid overdose prevention programs.

NPC Research, the contracted policy evaluator for the Initiative in Alaska provides technical assistance and summarizes publicly available information to expand and evaluate policy associated with these efforts. NPC Research conducted multivariate analyses of the PDMP Awareness and Feedback Questionnaire data. Numerous relationships between survey items and constructs were assessed by conducting correlational analyses. Several of the associations were statistically insignificant or results did not suggest improved behavior would result from increased training/education or policy change. Appendix A summarizes the variables and p-values for numerous correlations involving behavior. Statistically significant and meaningful associations found with survey content and prescriber behavior are presented in this report.

The purpose of this report is to describe the statistical relationships between groups of PDMP users who shared their experiences in using Alaska's PDMP, associated resources and reports and to assess the level of individual knowledge currently being used to guide prescribing and dispensing practices. The findings can be used to assist the State of Alaska in developing opioid education materials and improving the resources used by and for prescribers and dispensers. In addition, feedback and

recommended revisions have been provided on the PDMP Awareness and Feedback Questionnaire to enhance the utility of collected data in future survey administrations.

This report includes correlational analyses of the PDMP Awareness and Feedback Questionnaire[1] data, a summary of the open-ended responses, and a discussion with recommendations. Appendices to the report include an associations table, a codebook that summarizes modifications to the survey data made in preparation for analysis, a copy of the survey, a summary of the open-ended responses, a poster visually summarizing key results, and feedback on the survey question wording and response options.

BACKGROUND

In 2008, Senate Bill 196 of the Alaska State Legislature amended Alaska Statute 17.30.200, mandating the creation of a database of controlled substance prescriptions (the Prescription Drug Monitoring Program or PDMP).[2] The Alaska Board of Pharmacy (BoP) created a secure online database in response to this legislation and in an effort to improve public health across the state of Alaska.[3] The AKPDMP is a centralized database storing controlled substance prescription information for all patients for up to 2 years from the date of prescription.

The Alaska PDMP continues to be administered by the Alaska Board of Pharmacy under the Department of Commerce, Community, and Economic Development (DCCED), Division of Corporations, Business and Professional Licensing (CBPL).

The Alaska PDMP is designed to require data entry on every prescription for a Schedule II, III, and IV controlled substance (with minor exceptions)[4] in an effort to ensure patient safety by:

- providing prescribers and pharmacists with dispensing history by patient;
- providing information on clinically appropriate controlled substance medications;
- storing information for investigations on potential misuse and abuse;
- providing information on the prescribing of appropriate medications; and
- generating comparative reports for practitioners.

[1] Preliminary descriptive analyses provided by the online survey vendor can be found at: https://www.commerce.alaska.gov/web/Portals/5/pub/PDMP_FeedbackQuestionaire_07.2018.pdf

[2] Data and content retrieved from: https://www.commerce.alaska.gov/web/portals/5/pub/PHA_PDMP_2019_LegislativeReport.pdf

[3] Data and content retrieved from: https://www.commerce.alaska.gov/web/cbpl/ProfessionalLicensing/PrescriptionDrugMonitoringProgram.aspx

[4] Data and content retrieved from: https://www.commerce.alaska.gov/web/portals/5/pub/PHA_PDMP_2019_LegislativeReport.pdf

In July 2017, House Bill 159, a state law mandating PDMP registration, review, and reporting by practitioners and pharmacists was implemented. Those applying for or holding a DEA registration must register for the PDMP. All prescribers and pharmacists are required by law to register and enter information. This includes dentists, physicians, nurse practitioners, optometrists, pharmacists, and veterinarians.[5] In addition, it created allowances for a program to assign other licensed, certified staff (delegates) access to the database as part of their work for prescribers.

As of 2018, there were 7,045 registered PDMP users, an increase from 1,785 in 2016 (before the legislation).[6] Registration counts by profession include 2,446 physicians, 573 physician assistants, 1,011 pharmacists, 916 nurse practitioners, 639 dentists, 72 optometrists, 249 veterinarians and 1,499 "other."

In addition to registering for the PDMP, individuals with a current DEA registration are required to attend two hours of education in pain management and opioid use and addiction in the two year renewal period for the program.

Most (49) states use a PDMP. In some states, PDMP data are sometimes used by epidemiologists, researchers and educators to study relationships that impact policy creation and can inform prevention efforts. Unlike in some other states, the AKPDMP data are not archived for research purposes. The Alaska PDMP is not directly connected to medical records.

In addition to the online database itself, a resource website[7] aims to provide timely and accurate instructions, information, resources, and necessary applications relevant to the AKPDMP. The database vendor also generates *Unsolicited Reports - Prescriber Report Cards* which summarize prescribing activity and provides comparative summary data with other prescribers in Alaska in the same occupation, on a quarterly basis. A variety of metrics are displayed including the number and type of prescriptions written.

The PDMP Awareness and Feedback Questionnaire requested feedback on the different components of the PDMP as well as attempted to ascertain the level of knowledge of the law by respondents.

[5] Data and content retrieved from: https://www.commerce.alaska.gov/web/portals/5/pub/PHA_PDMP_2019_LegislativeReport.pdf
[6] Data and content retrieved from: https://www.commerce.alaska.gov/web/portals/5/pub/PHA_PDMP_2019_LegislativeReport.pdf
[7] https://www.commerce.alaska.gov/web/cbpl/ProfessionalLicensing/PrescriptionDrugMonitoringProgram.aspx

METHODS

The PDMP Awareness and Feedback Questionnaire was designed to ask users their impressions of the new required entry of prescription information. An online survey was created and sent to all registered users. Respondents were informed that the estimated participation time was 15 to 20 minutes and that their results will remain anonymous.

Specifically, the PDMP Awareness and Feedback Questionnaire:

- Web-based survey link was emailed to licensed physicians, prescribers, and pharmacists posted to licensing board websites, and sent out as a mass notice via PDMP announcements;
- Reached 9,691 licensed physicians, prescribers, and pharmacists in Alaska via email and 6,098 licensed practitioners via PDMP announcements between May and July 2018. Follow-up contact was made to remind participants to complete the survey; and
- Data from *N* = 402 completed surveys were available for analysis; the quantitative multivariate analyses focused on prescribers (*N* = 186).

Limitations

In 2018 there were more than 7,000 registered users of the Alaska PDMP, and more than 4,000 of these were prescribers.[8] The analyses presented in this report were conducted on 186 prescribers, which is less than 5% of all registered prescribers. Considering such a small response rate, these survey respondents essentially represent a convenience sample—those who were easy to recruit and willing to complete the survey.

Open-ended Responses

Qualitative responses to open-ended questions were grouped into themes for all respondents (*N* = 402) who provided content in the text fields. These responses are summarized with the relevant quantitative analyses and in Appendix D.

[8] Data and content retrieved from: https://www.commerce.alaska.gov/web/portals/5/pub/PHA_PDMP_2019_LegislativeReport.pdf

Quantitative Methods

The chi-squared and frequency analyses primarily focused on the prescribers. Several questions, noted in appendix B, where the respondent answered "no- I do not prescribe" defined the category of non-prescriber. The rest were designated as prescribers. The total number of respondents was 402. Narrowing the group down to prescribers only resulted in a sample size of 186. Though sample size varies by question because not all prescribers answered all questions; there was missing data for some questions.

Some global transformations of the answers were performed. One type of change was the consolidation of similar categories. The purpose of which was clearer interpretation and increased likelihood of meeting the requirements for statistical tests. For a range of values on a Likert scale, such as from "strongly disagree" to "strongly agree," the "strongly disagree" and "disagree" categories were combined, as were the "strongly agree" and "agree" categories. Another type of change involved the dropping of values. For neutral values, such as "neither agree nor disagree" those responses were disregarded. The purpose of which was to concentrate correlations on respondents who indicate a preference. The "other" categories were dropped as well. Open-ended "other" responses were included in the qualitative analysis.

In summary, the results can be interpreted for the group of prescribers who had a preference within each question. Appendix B lists all of the variable value changes.

The questions were separated by several constructs in order to do some investigation based on theoretical relationships: user qualities, knowledge, actions, and training. Table 1 lists and describes each.

Table 1. Key Survey Topics

Topic	Description
User Qualities	Role (physician, physician's assistant/nurse practitioner, dentist), length of time using PDMP
User Knowledge	Allowable exceptions to mandatory use of the PDMP
User Behaviors	Frequency of using PDMP, reviewing PDMP for every patient versus based on patient characteristics, changed prescribing patterns
Training	Modes (in-person, email/newsletter, 5-min web video, 15-min web video, 30-min training via teleconference), likelihood of attending training

The "user qualities" referenced the user role and length of time using the PDMP. "Knowledge" involved questions about the program. The "knowledge" scale value was created from these three true/false questions about the PDMP (q44-46). "Practitioners are exempt from interacting with the PDMP when:

- … administering to a patient admitted to a health care facility."
- … dispensing, prescribing, or administering at the scene of an emergency, in an ambulance, or in an emergency department."
- … dispensing, prescribing, or administering at a hospice or nursing home that has an inpatient pharmacy."

The "actions" investigated included whether or not their prescribing patterns changed, how often they check the PDMP, and for whom the prescribers checked the PDMP. Actions of the prescribers were the primary focus, because the goal is for users to consistently check the PDMP for all patients, regularly enter data into the PDMP for every prescription, and change to safer prescribing practices as a result of unsolicited PDMP prescriber reports and education and training on PDMP use, recommended prescribing practices, and education or training. The two "training" questions involve the training format or mode and likelihood of engaging in training opportunities.

Table 2. Key Questions Grouped By Topic

Construct	Q#	Question	Answers	Notes
User qualities	1	Please specify your user role	• Doctor • PA/NP, etc. • Dentist	Recoded from 8 categories: Physician (MD, DO); Nurse Practitioner (includes APRN, NP, CNM, CNS, CRNA); Physician Assistant; Dentist; Pharmacist; Podiatrist; Optometrist; Veterinarian
	50	How long have you used the PDMP?	• Never • 1-6 months • 7-12 months • 3-4 years • 5+ years	Survey missing 1-3 years; the categories of "5-6" and "7+ years" were combined to form the 5+ category
Knowledge	42-49	Practitioners are exempt from interacting with the PDMP when…		Beginning phrase for questions 42-49; the correct answer is "true" for questions 42-49

Construct	Q#	Question	Answers	Notes
	42	… dispensing to a patient for an outpatient supply of 24-hour or less at a hospital with an inpatient pharmacy for use after discharge.	• True • False	
	43	… dispensing to a patient for an outpatient supply of 24-hour or less at a hospital emergency department for use after discharge.	• True • False	
	44	… administering to a patient admitted to health care facility.	• True • False	
	45	… dispensing, prescribing, or administering and the scene of an emergency, in an ambulance, or in an emergency department.	• True • False	
	46	… dispensing, prescribing, or administering at a hospice or nursing home that has an inpatient pharmacy.	• True • False	
	47	… dispensing, prescribing, or administering immediately before, during, or within the first 48 hours after surgery or a medical procedure.	• True • False	
	48	… dispensing, prescribing, or administering in a non-refillable prescription for a controlled substance in a quantity intended to last for not more than three days.	• True • False	
	49	… administered to a patient admitted to a correctional facility.	• True • False	

Construct	Q#	Question	Answers	Notes
	44-46	Scale combination of questions 44 to 46.	• True • False	
	42-49	Scale combination of questions 42-49	• True • False	
	2	Awareness of the PDMP website, pdmp.alaska.com	• Yes • No	
	39	Number of states that Alaska shares PDMP data with	• None • 1 • 2-3 • 4-5 • 6-7	The correct answer is 7
Actions	22	How often do you check the PDMP?	• Always/Usually • Sometimes • Rarely/Never	"Always" and "usually" were combined to form "always/usually"; similarly, "rarely" and "never" were combined to form "rarely/never"
	52	Who do you check the PDMP on?	• Everyone • Other criteria	"Other criteria" was a combination of 3 categories "suspicious patients"; "substance misuse" or "behavioral health" problems
	11	I changed my prescribing pattern as a result of looking at my report card.	• Agree • Disagree	"Strongly agree" and "agree" were combined, as were "strongly disagree" and "disagree;" "neither" was dropped

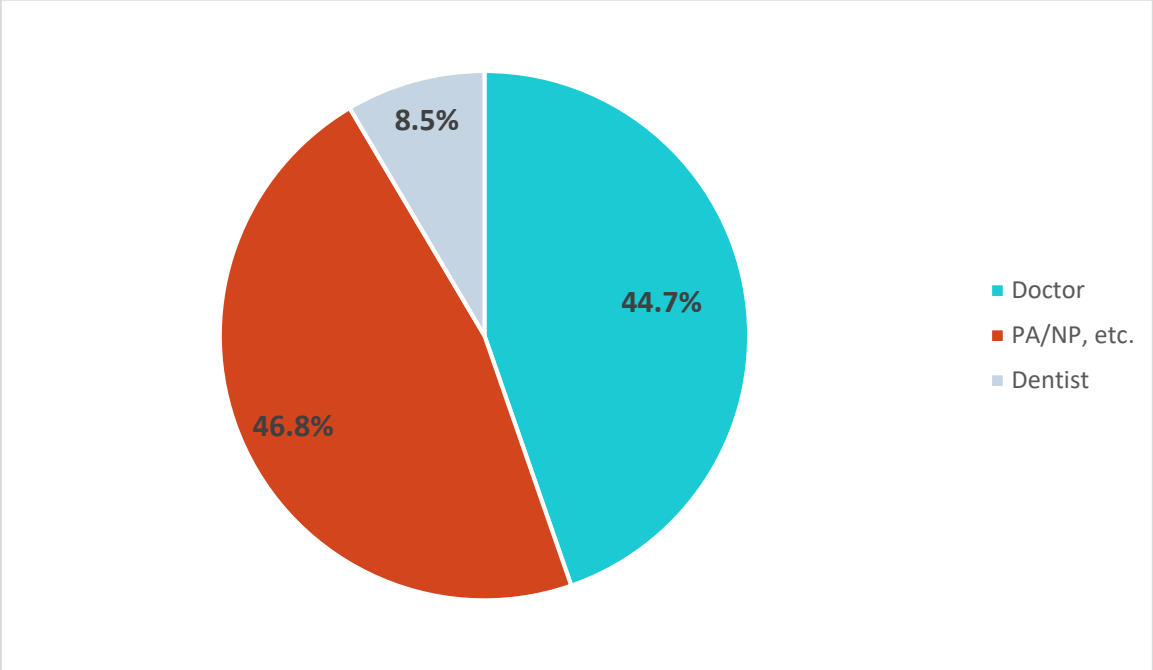
Construct	Q#	Question	Answers	Notes
Training	53	How likely are you to engage in a PDMP-specific training?	• Likely • Unlikely	"Very likely" and "likely" were combined, as were "very unlikely" and "unlikely;" "neither" was dropped
	54	If you are interested in engaging in PDMP-specific training, what modality would be most useful and effective?	• In-person training • Email or newsletter • 5-minute on-demand videos • 30-minute training via teleconference • Other	"Other" was dropped and left to the qualitative analysis

RESULTS

Role of Survey Respondents

User role was collapsed to three categories: doctor, PA/NP (etc.), dentist, and other. "Other" was dropped as indicated in the variable changes. The sample distribution was nearly half doctors; nearly half physicians' assistants, nurse practitioners, and other non-doctor medical professionals (indicated as "PA/NP, etc." in the legend below); and the remaining use role was dentists (8.5%). Figure 1 displays the distribution of user roles.

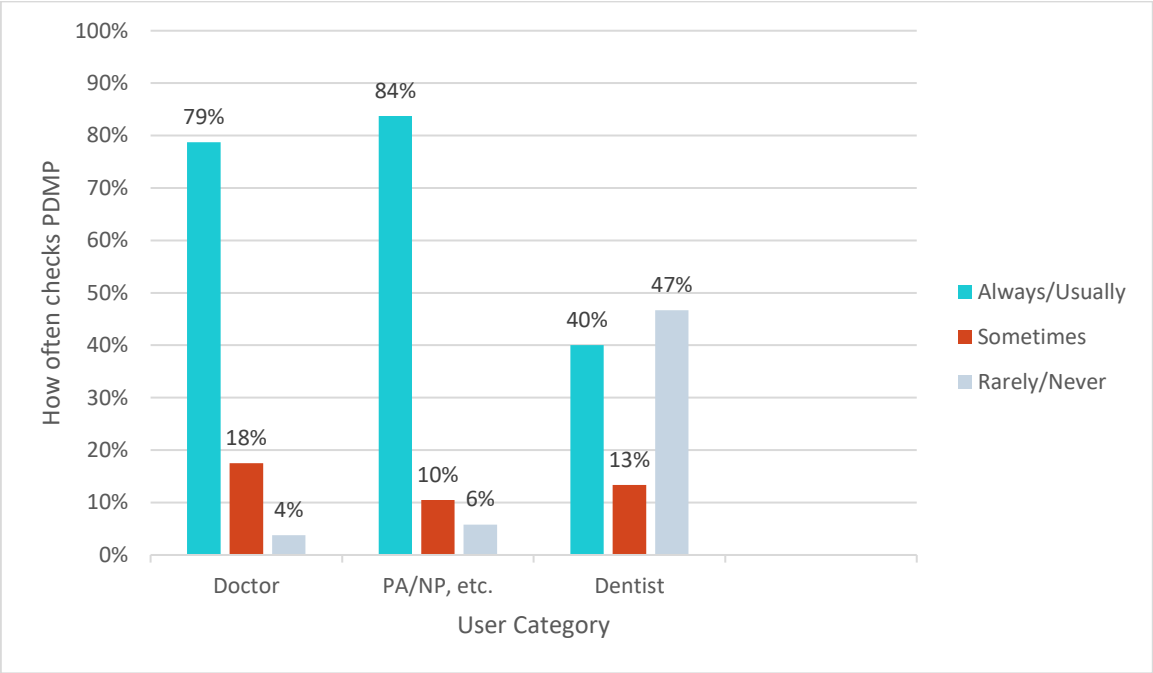
Figure 1. User Role



Dentists Less Likely to Use the PDMP

A significant relationship was found between user role and checking of PDMP when dentists were included. Dentists were less likely than the other two roles to always check the PDMP. See Figure 2. However, there was no relationship found when dentists were excluded from the analysis. See Figure 3. It makes sense that the dentists might be a separate class of medical professionals who interact differently with the PDMP than other prescribers. The qualitative results echo the sentiment that the dentists do not think the system is geared towards them.

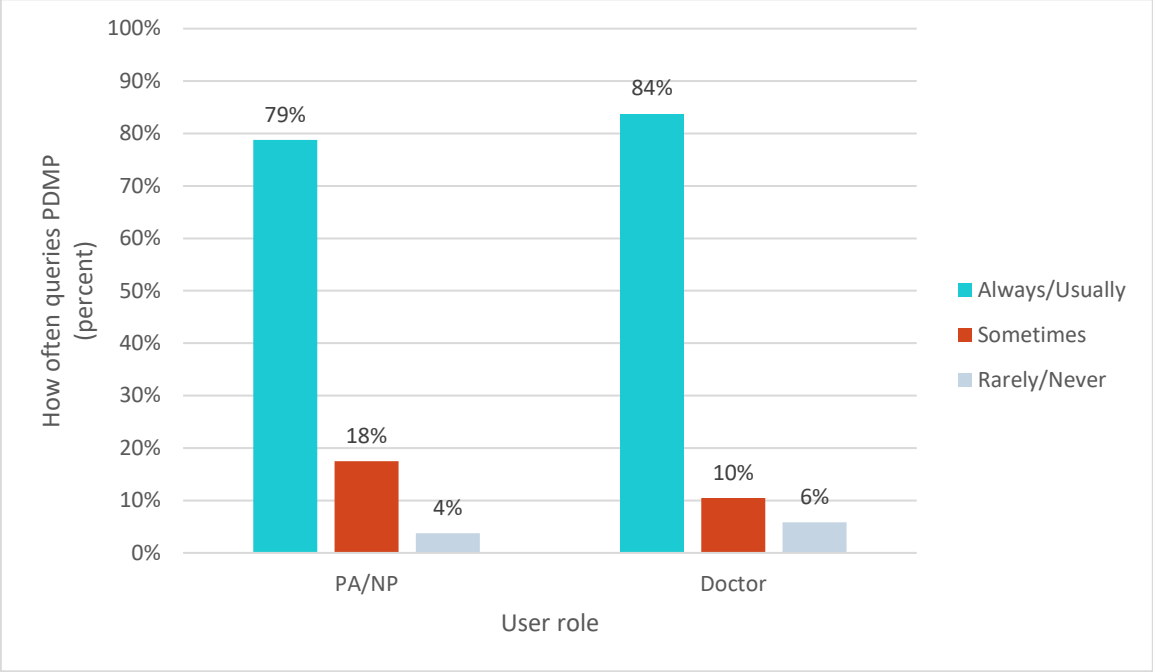
Figure 2. Frequency of Prescribers Checking the PDMP by Role



[X^2 (4, N = 181) = 33.9, $p < 0.001$]

With dentists removed, there was no significant difference for the frequency of referring to the PDMP between the doctor and non-doctor prescribers, as Figure 3 demonstrates.

Figure 3. Frequency of Prescribers Checking the PDMP by Role, Excluding Dentists



[X^2 *(2, N = 166) =2.0, p > 0.05*].

No relationship was found between length of time using the PDMP and the behaviors involved in interacting with the PDMP described above (frequency of checking the PDMP and the criteria used to determine who to check the PDMP on). Though there was not a large enough sample size to meet the requirements of the X^2 test. In addition, missing the one to three year category in the survey makes the results difficult to interpret. In future survey administrations, a category of 1-2 years should be added to the question asking "how long have you used the PDMP?" in order to make the response categories exhaustive and gather data on what is likely the most common amount of time respondents have been using the PDMP.

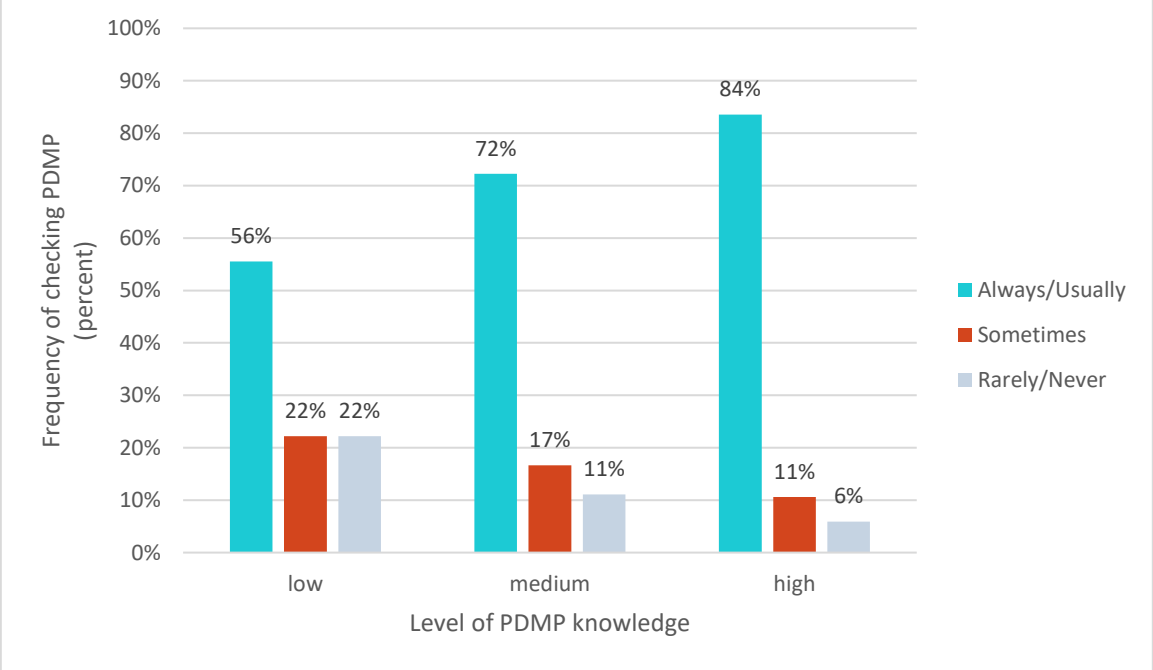
> *"It allows me to check and see if my patients are getting prescriptions filled from other providers." – Survey respondent*

When asked for which patients do you generally check the PDMP, over 117 respondents (including all respondents not just prescribers) selected "other" and most of these used the field to say that they check all patients *prescribed a controlled substance* (an interpretation of one of the discrete responses). Specific responses included: only checking ***new*** patients, that they intend to check when it becomes mandatory, a belief that prescriptions are checked at the pharmacy, not checking for short-term prescriptions for acute injuries, or that they are only checking for surgery patients.

More Knowledge Associated with Frequent PDMP Checking

Physicians or prescribers with high knowledge are more likely to always/usually query the PDMP. Figure 4 shows the increase of the always/usually category with increased knowledge, from 56% for low knowledge to 84% for high knowledge. The knowledge level indicated here is based on the combined knowledge scale noted in the Key Questions Grouped by Topic table.

Figure 4. Frequency of Checking the PDMP (always/usually, sometimes, rarely/never) for different PDMP knowledge levels (low/medium/high)



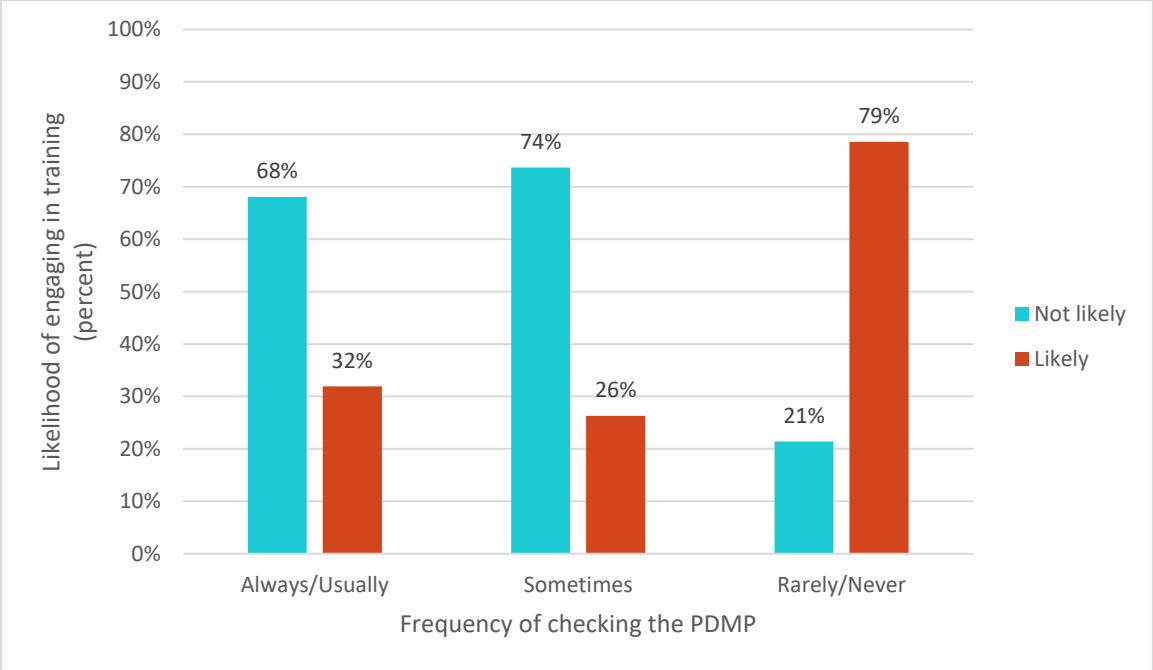
[X^2 (4, N = 184) = 9.8, $p < 0.05$]

Offer More Training for Later Adopters

Figure 5 shows that a greater percentage (79%) of those who rarely/never check the PDMP than those who sometimes (26%) or always/usually (32%) would be likely to participate in training. If additional training was offered, perhaps more training would increase their rate of checking the PDMP. It was encouraging to note the willingness of those who rarely check the system to engage in training.

> *"Reviewing is the right thing to do." – Survey respondent*

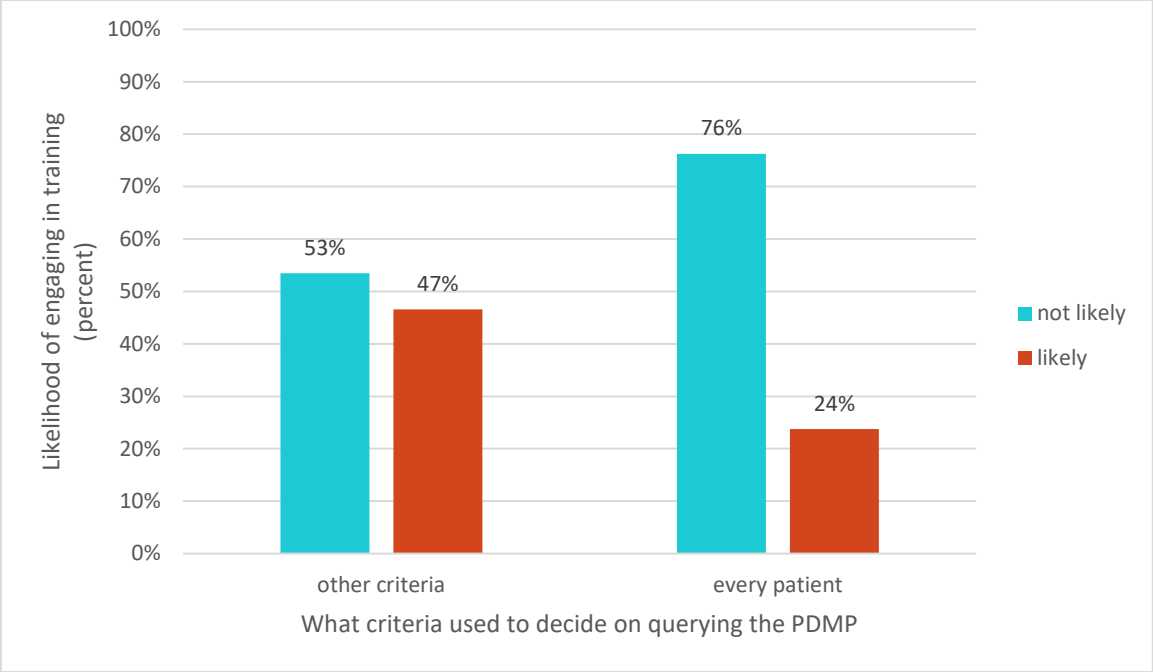
Figure 5. Likelihood of Attending a Training for Different Frequencies of Checking the PDMP



[X^2 (2, N = 127) = 12.4, $p < 0.005$].

Ideally, the prescribers would be checking the PDMP on every patient. Figure 6 indicates that the prescribers who use other criteria (like how the person looks) reported a higher likelihood of engaging in training (47%) than prescribers who check every patient (24%). As above, if additional training was offered, perhaps the willingness to engage in training would result in more training received and, over time, an increase in checking the PDMP on all patients.

Figure 6. Likelihood of Attending a Training for Whether the Prescriber Checks the PDMP for Every Patient or Using Some Other Criteria



[X^2 (1, N = 117) = 6.69, $p < 0.05$].

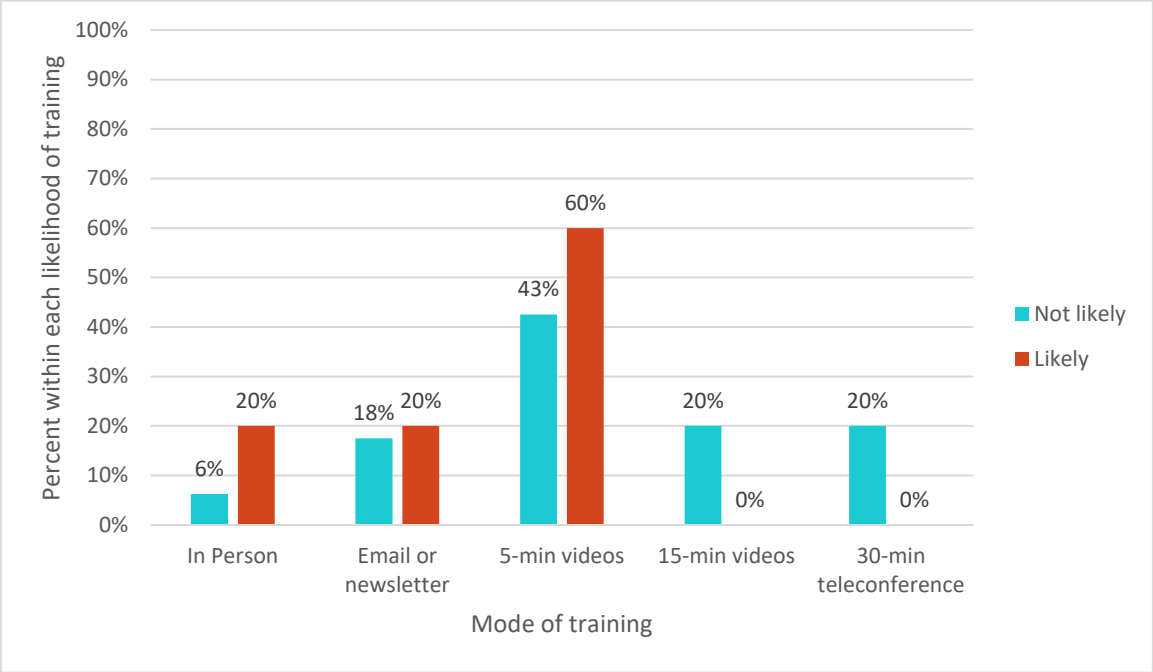
Nineteen people responded "other" when asked what training modality would be most useful and effective. Most (16) used the "other" field to say they were not interested in trainings. Only three respondents provided relevant "other" content - that in-person training was not useful, a preference for an online training with CMEs, and an online training provided via the website and user interface.

"[The PDMP] provides information regarding patient access to controlled substances."
- Survey respondent

Preferred Training Modalities

Both those who were likely to participate in a training and those who were not likely preferred the 5-minute on-demand videos over other potential training modalities. See Figure 7 below.

Figure 7. Likelihood of Attending Training for Each Preferred Modality of Training



From previous investigations, streamlined enrollment, training and educating prescribers, enhanced interface and uploading PDMP in real-time, retaining and sharing data, and integrating PDM data with electronic health records were possible arenas for improvement reported by survey respondents.

As far as the content of that training or potential adjustments to the program, the following topics may be helpful to address. The following feedback included all respondents who answered the questions, not only prescribers. The arenas discussed below include positive interactions with PDMP.

Positive Interactions with the PDMP

Respondents indicate that the most helpful sources of information included the FAQ (33%), sign-up instructions (20%), and data submission (15%). Most found reporting prescription information to the PDMP straight forward as 62% reported easy and 38% reported difficult. Of those who have delegate access, 70% found it helpful. Perhaps decreasing any barriers to assigning delegates could ultimately improve adherence to consistent reviewing and reporting practices and/or the ease of PDMP use.

When asked to check all that apply when describing the reasons they use the PDMP, forty-eight respondents selected "other". Of these, nineteen provided additional reasons or nuances on one of the discrete choices ("reduces prescription opioid misuse", "reduces all opioid use", "reduces prescription diversion" "a way to screen for substance misuse", "for self-preservation", "it is my moral and ethical obligation to do so", "mandatory to do so", and "I am making a difference"). Fifteen responses were positive and these include obtaining patient information (7), ensuring patient safety (6), the law is effective (3), it works in other states (2) and that it is mandatory (4). Respondents specifically noted:

> *"I wish the program had started >10 yrs ago & I hope the State Medical Licensing Board uses it actively."*

"It allows me to see if my patients are honest and forthcoming."

"Have seen similar programs work in other states."

"Hope it makes a difference. It's a tool."

"I am retired but believe that this program is extremely valuable."

"It deters addiction and addictive behavior."

Challenging Interactions with the PDMP

Table 3 lists the top 6 tasks that respondents indicated as "challenging." Correcting prescription errors was the most challenging interaction followed by consolidating patient information.

Table 3. List of Tasks in Decreasing Order of Reported Difficulty

	Percent of practitioners			
Task	**Not Challenging**	**Somewhat Challenging**	**Challenging**	**Note**
Correcting prescription errors	11%	35%	54%	Graphed in Figure 8 below.
Consolidating patient information	12%	37%	51%	Graphed in Figure 9 below.
Reporting	42%	37%	21%	

Figure 8 shows that 54% ranked the experience of correcting prescription errors as "challenging."

Figure 8. Challenge of Correcting Prescription Errors

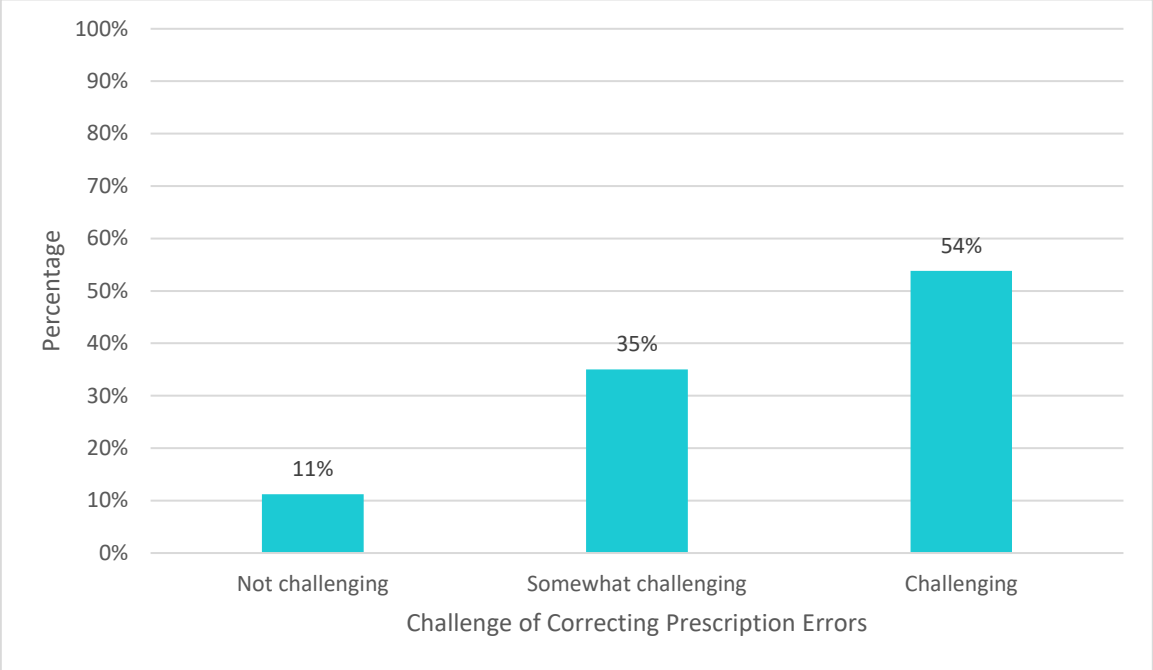
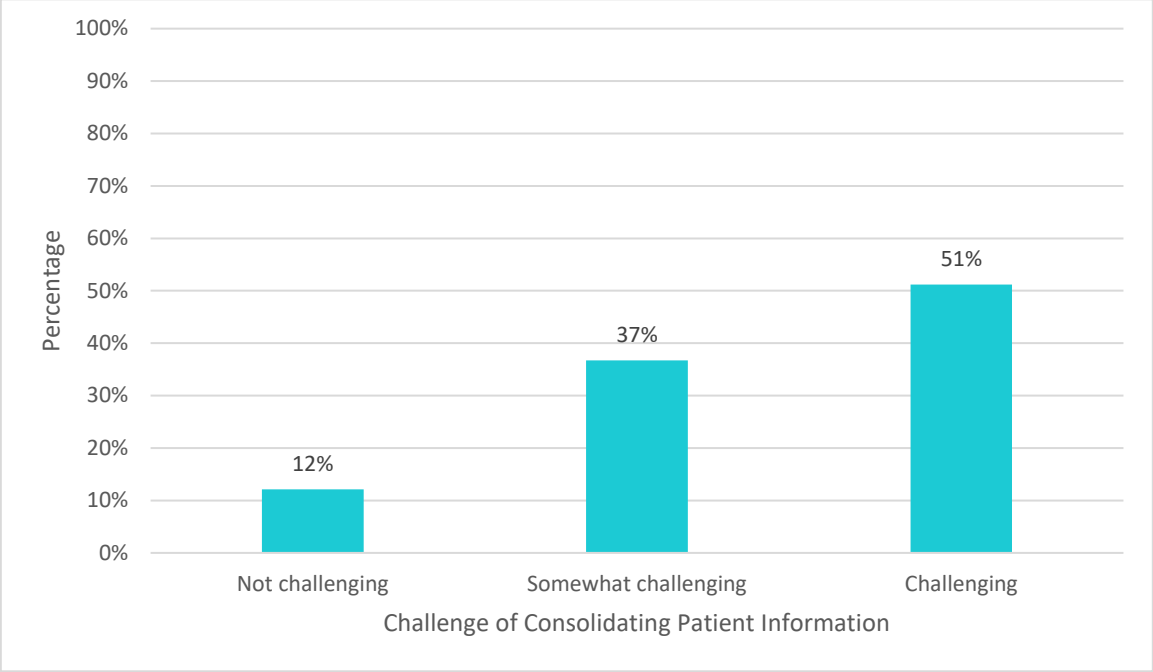


Figure 9 demonstrates that 51% of the practitioners found consolidating patient information challenging.

Figure 9. Challenge of Consolidating Patient Information



When asked to check all that apply to describe the reasons they use the PDMP, forty-eight respondents selected "other".

"*I am forced to use it by a system that doesn't account for the subtleties of my profession.*"

"It's my job."

"I'd like to believe it [creates positive change] but have not seen any evidence based study that shows it really does. Another question would be – 'does it drive more users to use heroin?'"

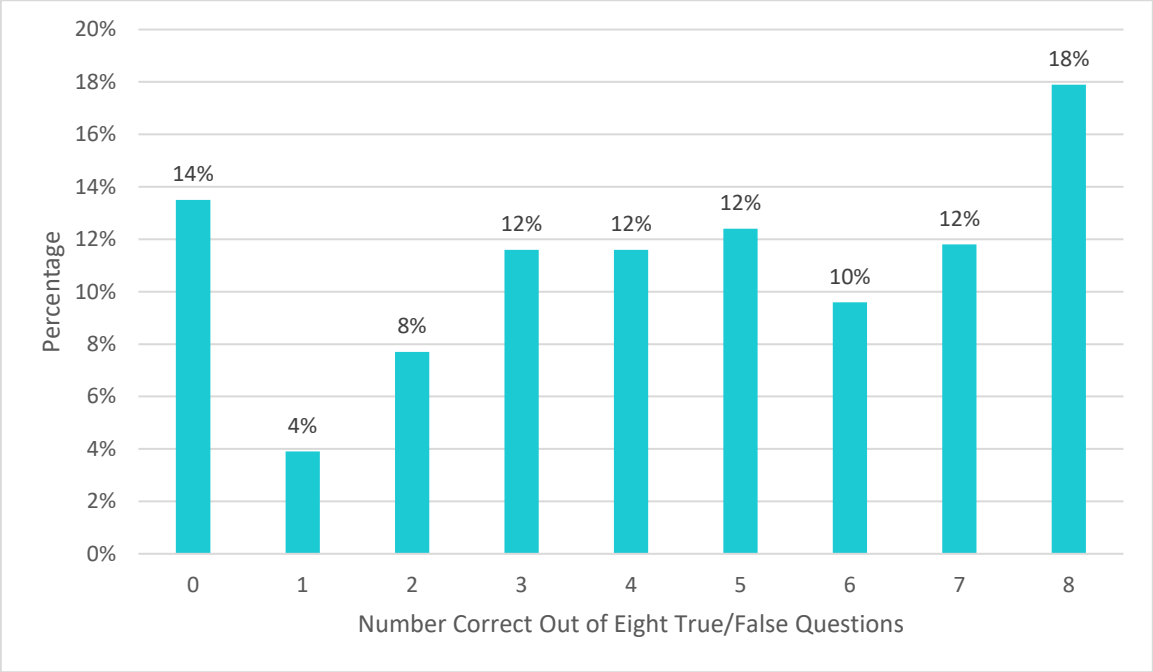
Knowledge of the PDMP

One of the knowledge items asked respondents to report the number of states with which Alaska is currently sharing PDMP information. At least 92% of prescribers answered this knowledge item incorrectly. Most prescribers (58%) answered zero states; the correct answer was seven states.

A knowledge scale was constructed and it consisted of a variety of true/false questions (questions 42-49 in Table 2) related to the knowledge of situations where checking the PDMP was not required. A small percentage (18%) answered all eight correctly (true). Since these questions only apply to specific

exceptions for checking the PDMP, perhaps those who answered any incorrectly (82%) did not work in those settings to which the exceptions apply. Figure 10 shows the percentage of prescribers who answered various numbers of the knowledge questions incorrectly.

Figure 10. Percentage of Respondent Who Answered Eight Knowledge Questions Correctly



Frequency of Checking the PDMP

There are couple of important actions to focus on that were discussed in more depth in the quantitative results section.

1. Checking the PDMP always or usually: only 72% query PDMP always or usually, meaning 28% check it less often.
2. Checking the PDMP for every person: 48% check the PDMP for every person. 52% do not check every person and instead check certain people using various criteria.

The desire would be for each practitioner to check the PDMP for every patient in every prescription situation, besides the allowable exceptions listed above in the knowledge section (Q42-49).

The survey included areas for respondents to enter text for many of the questions. The following is a summary of these text fields.

Summary of Qualitative Responses

A few themes emerged across the qualitative survey questions:

- A few positive comments mentioned the ease of use, that the site is self-explanatory, help was received when requested via email or phone, the report cards were informative, and that the email messages linked them to useful additional content.
- Respondents generally used the website for patient searches only, some were not aware of the other features while others had no interest in the other features.
- Adding national access or access to other states was requested.
- The concept of delegates was confusing for some and there were requests for CMAs to be authorized as delegates.
- Assistance from the State offices may not be consistent. There was mention of not being able to get help at all but more often that respondents were unable to get timely or knowledgeable assistance.
- Veterinarians and dentists do not feel that the law, the website, or the report cards were designed with them in mind.

While not themes, the following concepts were mentioned that could be addressed in communications to prescribers: situations in which checking and entering patient information is mandatory, concerns about HIPAA/confidential information being shared, using existing data to determine information sharing states, adding military pharmacies, and addressing concerns within the Alaska Native communities along with how/if the Pharmacy Board is also addressing this issue.

Specific comments on the user interface included:

- too slow, too many steps, too complicated;
- doesn't fit on the screen, search button is lost at the bottom of the page and perhaps needs to be a different color, include a search function within a listing of a doctor's patients;
- add an open field for communicating with pharmacies, add a link to report suspected abuse/initiate an investigation;
- develop an easier method for making corrections;
- dashboard displays more than one patient name at a time so unable to use when patients are in the room; and
- increase the length of time before automatically logging users off, passwords expire too frequently and log-in is cumbersome.

Data availability was also mentioned:

- respondents were unable to view their own prescription information entered—not showing up in future searches;
- concerns for increased accuracy;
- requests for an automatic message when their patient receives a controlled substance from another source;
- requests to include an entry for dosage and instructions for the prescription; and
- concerns that pharmacies were not entering information in a timely manner or that they were unable to access this information.

Summary data requests included: more frequent access to report card information; ensuring the report cards are comparing the respondent to the correct field of medicine (hospice, surgery, etc.); include the location (rural/urban) as a criteria for comparisons; and include patient diagnosis as a criteria for comparison (if patients are in comfort care, etc.). Several respondents were not familiar with the report cards or had only seen one.

Most of the open-ended responses were used to explain that the survey and the PDMP were not relevant to the respondent (not prescribing, not working in AK). A few respondents question the law and the fees being charged. Some respondents mentioned that if this were not mandatory they would not be doing it.

Please see Appendix D for a description of the open-ended responses.

DISCUSSION

Overall, respondents to this survey found the reports useful, noted challenges in using the Alaska PDMP, and were not yet savvy on the few exceptions or the number of states data were shared among. Overall, they are somewhat interested in trainings and those with low PDMP usage are the most interested in trainings.

The survey response rate created limitations as to the relevance and interpretation of the data. However, the following recommendations should be considered:

1. **Provide training and reminders to ensure prescribers are consistently checking the PDMP for every patient, as mandated by the law.** Survey results indicate that for this sample, 72% query PDMP always or usually and 48% check the PDMP for every person. In addition, 41% were likely to participate in a training and 58% preferred an online offering.[9] Offer trainings and send email reminders.
2. **Provide training on the details of the law.** Respondents indicated a lack of knowledge of the specifics on the exceptions to mandatory use of the AKPDMP and data sharing with other states. Schedule training and draft email reminders on these topics.
3. **Ensure dentists and veterinarians are able to successfully enter information into the PDMP.** Dentists reported difficulties and lower usage—in the open-ended responses they indicated that it felt as though the system was not designed for them. Veterinarians mentioned similar issues.
4. **Ensure the unsolicited prescriber reports are accurate comparisons for the prescribers.** Specialties may now be delineated into three subcategories. Ensure the correct subcategories are generated for each prescriber.
5. **Share information on delegate access broadly.** Increase access for delegates and where possible, decrease barriers for delegate access to allow prescribers assistance in making timely and accurate PDMP entries and using the PDMP information as part of their prescribing patterns.
6. **Increase survey response rate.** Attempt to reach more users with additional reminders and highlighting the link in multiple areas. Offer incentives to increase survey responses.
7. **Modify the survey to gather information from other users.** Include questions for dispensers/pharmacists and delegates in the 2019 PDMP Awareness and Feedback Questionnaire. See other survey feedback for changes in question wording, order, response categories, and deletion and addition of questions.
8. **Consider ways to facilitate research and data analytics on the PDMP data.** PDMP data are currently purged 2 years after the prescription is dispensed. There is no state mandate for

[9] Preliminary data from the survey vendor: https://www.commerce.alaska.gov/web/Portals/5/pub/PDMP_FeedbackQuestionaire_07.2018.pdf

archiving data and the statute has no exclusions for the availability of de-identified data for research and educational purposes.

APPENDIX A: X2 P-VALUES

			Behavior Questions		
Construct	**Q#**	**Q shorthand**	**Changed prescribing patterns (Q11)**	**How often check PDMP (Q22)**	**What patient criteria used to check the PDMP (Q52)**
User	Q1	User role	0.821	0.000 (<0.0001)	0.707
	Q50	How long used the PDMP	*	*	*
	Q55	Register w/another state PDMP	0.554	0.122	0.564
Knowledge	Q2	Awareness of PDMP website	*	*	0.505
	Q39	Number of states that AK shares PDMP data with	*	*	0.135
	Q42	Outpatient supply for 24hrs or less hospital with inpatient pharmacy	0.918	0.163	0.817
	Q43	Outpatient supply from ED for 24hrs or less hospital with inpatient pharmacy	0.397	0.203	0.549

			Behavior Questions		
Construct	**Q#**	**Q shorthand**	**Changed prescribing patterns (Q11)**	**How often check PDMP (Q22)**	**What patient criteria used to check the PDMP (Q52)**
	Q44	Administering to an admitted patient	0.980	0.201	0.023
	Q45	Scene of emergency, ambulance, or ED	0.180	0.006	0.665
	Q46	Hospice, nursing home w/inpatient pharmacy	0.030	0.032	0.014
	Q47	Immediately before, after, during surgery	0.479	0.211	1.000
	Q48	Non-refillable prescription for not more than 3 days	0.361	0.111	0.397
	Q49	Patients admitted to a correctional facility	0.075	0.184	0.251
	Q44-46	Combined knowledge scale	0.303	0.043	0.050
Training	Q53	Likelihood of engaging in training	0.076	0.002	0.010
	Q54	Modality of training	*	*	0.155

*violates X^2 sample size requirement

APPENDIX B: CODEBOOK

APPENDIX C: SURVEY

APPENDIX D: OPEN-ENDED RESPONSES

Q3. What source(s) of information do you find most helpful when navigating the State of Alaska PDMP website (pdmp.alaska.gov)?

Respondents were asked to choose all that apply for “what do you find most helpful” (discrete responses included: “frequently asked questions”, “sign-up instructions”, “data submission dispenser guide”, “comprehensive guide to PDMP requirements and effective dates”, “joint committee on Prescriptive Guidelines Report to Alaska State Legislature”, “House Bill 159”, “Legislative Reports”, “other notifications embedded in the website” and “other”), fifty open-ended responses were provided.

More than half (27 respondents) were positive or neutral - with most referencing using the site for patient information (19), ease of use and that they have received help when needed and email messages sent from the program pointed them to the website. Others provided negative comments including that it is not useful (16 respondents) and a lack of help from State offices or taking issue with the law itself.

Q6. What could be added to improve the quality of the PDMP state website (pdmp.alaska.gov)?

When asked to choose all that apply for what could be added to improve the quality of the PDMP website – “a sample report card”, “more instructions”, “resources” or "other" one-hundred respondents provided a relevant response for "other". Eighty-five respondents offered concrete suggestions for improvements to the website across several themes:

- Suggestions for **additional resources** included: pain control guidelines; addiction treatment options, opiate withdrawal scoring system – add a link to resources related to Naltrexone, and Suboxone, an MME calculator that is simple and easy to use, pain management patient contracts and examples of how Alaska medical facilities are handling chronic pain - especially in the bush or remote areas, guidelines for appropriate amounts for various procedures, instructions (such as 2 tabs twice daily), ability to report fraud/theft of narcotics, methadone clinic doses administered (8).
- Increased **data access:** list of on-going patients, automatic reporting on patients, better accuracy, ability to search by aliases, real time prescription filing, and meeting HIPAA requirements for sharing data (16).

- Reviewing or providing more **summary data -** PDMP should review prescribers and pharmacists use of opiate narcotics and report to the appropriate boards, compare utilization of different specialties, for medical directors provide prescriber's report cards together, and access to trends, report cards on a monthly or quarterly basis (8).
- Increase the **speed** (9).
- Requests to simplify (11) the **user interface** and the frequency of password changes (8) were received as well as comments suggesting the patient search right on the front page of the website/ location of the "search" button, ability to choose patients previously searched, make a provider-specific list of patients available, saved log-in name, extend the time to automatic log-out, a field for notifications to pharmacies, a link to reporting for suspected violations, more examples, return to the previous drop down menus, and design the page so that it fits on the screen.

A small number made positive comments about the website and receiving summary data or comparisons – *"works great for me so far"*, [could be] *"less time consuming but overall works well"*.

"They sent an e-mail once with a bunch of data about prescribing practices compared to peers and this was super helpful...I would love to see this quarterly so we can track changes or trends in our own practice."

In addition, issues with interpreting the law or the rules of the law and the fees charged were also provided (12). A lack of help received from the State offices was also mentioned (8).

Q12. What could be changed about the report card to improve them? (Check all that apply).

Respondents were asked what could be changed about the report cards to improve them, 3% or 11 people selected the discrete option for "more metrics". An open-ended response option was offered for those individuals to describe what the additional metrics were that they would like to see. Seven response provided actual content, suggesting: add the number of prescribers, number of drugs, number of fills; do not include buprenorphine used for MAT or Suboxone in the numbers; use clearer metrics – i.e., *"2 doses of zolpidem for a sleep study should not be considered equal to a 30d supply"*; include more patient-based information; add how you obtained the data and include ADHD and non-opioid/non-benzo controlled substance prescriptions.

Overall, forty-three respondents provided answers in the open-ended field – mostly to offer feedback on the report cards with a few offering negative opinions of the law. Twenty-one reported never receiving a report card or only having received one. One person suggested they were going to their spam filter and several stated they did not want one. Ten people felt the comparisons being made were not relevant or completely wrong (within specialty, location or field of medicine, etc.).

Q17. In what area(s) does the PDMP office need to improve? (Check all that apply).

When asked to check all that apply regarding areas that the AK PDMP needs to improve, in addition to discrete responses of: “customer service”, “responding to phone calls and email messages”, “knowledge of registering”, “reviewing and reporting requirements” and that “the office does not need to improve”, an "other" category was available. Fifty respondents provide the following content:

- more or better assistance from the staff at the State offices (13);
- simplify, update or fix the user interface on the website (8), address data availability issues, especially with pharmacies (3), frequency of password changes (4), access to national data and drug code functioning;
- negative feedback on the law itself (13) and removing the fees (2); and
- report cards are not relevant or an accurate comparison (3) or rarely receiving one or not at all (6).

Q18. Rate your experience in registering with the PDMP database through the AWARxE platform (https://alaska.pmpaware.net).

Respondents were asked to rate the ease of registering with the PDMP database, 12% (44 responses) indicated that the registration process was difficult or very difficult. These respondents were asked to describe why. Twenty-nine open-ended responses described the process as too lengthy and requiring too much information (15), a lack of help from the State offices (5), the legislation (who has to do this, etc.; 6), frequent password changes (5) and that the user interface (5) is difficult (i.e., needs a table of contents, a search patient button located where users can see it, too many steps and slowness/speed of the website (2)).

Q28. Requirements for delegate access is sufficiently explained and is easy to understand.

When asked if the requirements for delegates were sufficiently explained, eleven responses to “other” suggested confusion about the protocols for delegates and what the regulations allow. One respondent said that the legal ramifications were too great to allow her staff this responsibility. Another person mentioned that their staff did not want to do it. It was requested that CMAs be permitted as delegates.

Q29. I have a delegate interacting with the PDMP on my behalf for the following purposes (Check all that apply).

Respondents were asked to check all that apply for a question on delegates interacting with the PDMP for which purposes. Discrete responses included: “to review patient prescription history”, “to submit prescription data”, “to correct prescription errors”, “not applicable – I do not have a delegate” and “other”. Nine people provided responses. Five respondents reported that they cannot have a delegate, or that they do not use their delegate (1) and two were unclear on the protocols. One respondent stated that they have the delegate look up patients and then they review the findings.

Q32. Delegate access has been the most useful for the following situations. (Check all that apply).

When asked to choose all that apply for which situations delegate access has been the most useful, seventeen respondents provided a response for "other" (discrete responses included “distributing workload”, “improving office workflow”, “reducing time constraints” or “not applicable – I do not have a delegate”. One wrote in that a delegate was used "occasionally" to reduce time, six mentioned that they would use their CMAs if permitted (one mentioned – as is the case in other states) and five felt unclear on the protocol for delegates - if they were even allowed to have them and some mentioned that their questions to the State had gone unanswered. In addition, three felt that the penalties were too severe to allow a delegate to do this for them and/or that delegates cannot truly provide assistance.

Q36. PDMP announcements posted in AWARxE and/or sent directly to my email creates report fatigue and I become overwhelmed with the information.

For the six respondents providing a comment when asked if the announcements or email messages from PDMP create report fatigue, four had never received these communications, one person said email is the best way to communicate and another mentioned HIPAA concerns.

Q37. Announcements I find most useful include:

When asked which announcements they found most useful, respondents were asked to choose all that apply among “notices relating to proposed regulations”, “prescription thefts or forgeries”, “tips on how to submit data”, “notices relating to technical issues” and "other". Twenty-four respondents chose “other”. A suggestion to include *“real data on benefits, links to thoughtful articles about controversy (increased heroin use related to PDMP)”* was received. Most did not provide suggestions and had either never seen an announcement (7) or felt that the announcements were not relevant or contained too much information (16).

Q38. Patients may cross state lines to obtain prescriptions. Prescribers and dispensers licensed in other states may want to conduct a patient prescription history query for a patient residing in Alaska receiving or asking for a prescription in their state. If given a prescription, prescribers and dispensers may want to report this information to the Alaska PDMP. Rate your support of allowing prescribers and dispensers not licensed in Alaska to review and report prescription history information for patients residing in our state (interstate data sharing).

Respondents provided an approval rating for sharing information with other states. Seventy-four respondents provided neutral or disapproving ratings and seven of these provided a comment. One person asked specifically for Washington state. Other comments received include: that this should be national (2), concerns that this would require physicians to register in every state (1) and privacy concerns (1) or that this is unnecessary (2).

Q40. Interstate data sharing should be allowed under the following circumstances.

Fourteen respondents chose "other" for a question asking about interstate data sharing circumstances. Discrete responses included "*only nearby states*", "*all states that have a PDMP*" or that it should not be allowed. Specific input included: ensuring data sharing safeguards are in place and sharing information with the military and the Native Communities. In addition, one person also suggested reviewing data trends to decide which states to share information with.

Some reiterated the discrete responses—six indicated all US states and four restated that none should be included for reasons such as no other state is near geographically, could make the process more cumbersome and that this is the Drug Enforcement Agency's role.

Q51. The following are reasons why I use the PDMP. (Check all that apply).

When asked to check all that apply to describe the reasons they use the PDMP, forty-eight respondents selected "other". Of these, nineteen provided additional reasons or nuances on one of the discrete choices ("reduces prescription opioid misuse", "reduces all opioid use", "reduces prescription diversion" "a way to screen for substance misuse", "for self-preservation", "it is my moral and ethical obligation to do so", "mandatory to do so", and "I am making a difference"). Fifteen responses were positive and these include obtaining patient information (7), ensuring patient safety (6), the law is effective (3), it works in other states (2) and that it is mandatory (4). Respondents specifically noted:

"It allows me to check and see if my patients are getting prescriptions filled from other providers."

"It provides information regarding patient access to controlled substances."

"It allows me to see if my patients are honest and forthcoming."

"Reviewing is the right thing to do."

"I wish the program had started >10 yrs ago & I hope the State Medical Licensing Board uses it actively."

"Have seen similar programs work in other states."

"Hope it makes a difference. It's a tool."

"I am retired but believe that this program is extremely valuable."

"It deters addiction and addictive behavior."

"*I am forced to use it by a system that doesn't account for the subtleties of my profession."*

"It's my job."

"I'd like to believe it does the first 4 but have not seen any evidence based study that shows it really does. Another question would be – 'does it drive more users to use heroin?'"

Q52. What patients do you generally check the PDMP on? (Check all that apply).

When asked what patients do you generally check the PDMP on (check all that apply; discrete responses included: “every patient:’ “patients who look suspicious”, “patients with known substance misuse”, “patients with known behavioral health issues”, and “other”), 117 selected "other" and most of these used the field to say that they check all patients *prescribed a controlled substance* (an interpretation of one of the discrete responses). Specific responses included: only checking new patients, that they intend to check when it becomes mandatory, a belief that prescriptions are checked at the pharmacy, not checking for short term prescriptions for acute injuries or that they are only checking for surgery patients.

Q54. If you are interested in engaging in PDMP-specific training, what modality would be most useful and effective?

Nineteen people responded to “other” when asked what modality would be most useful and effective (discrete responses included “in-person training”, “email or newsletter”, “5 minute video”, “15 minute video” and “30 minute training via the Internet”). Only three respondents provided relevant content - that this was *“not useful when they attended an in-person training”*, preference for an online training with CMEs and a training on the website and user interface.

Most (16) used the “other” field to say they were not interested in trainings.

Q55. Are you currently registered with another state PDMP?

One quarter of respondents are currently registered with another state PDMP. These states included: Alabama, Arizona, California, Colorado, Connecticut, District of Columbia, Florida, Hawaii, Idaho, Illinois, Indiana, Iowa, Kentucky, Louisiana, Maine, Massachusetts, Michigan, Minnesota, Montana, Nebraska, North Carolina, North Dakota, Nevada, New Mexico, New York, New Jersey, Ohio, Oklahoma, Oregon, Pennsylvania, Rhode Island, South Dakota, Tennessee, Texas, Utah, Vermont, Virginia, Washington, West Virginia, Wisconsin and Wyoming.

Q56. Please select a PDMP feature or policy of the other state you indicated above that makes the Alaska PDMP rank worse.

Among those (9) who responded “other” (discrete responses included: “Clinical Alerts”, “NarxCare”, “Emergency Department Information Exchange (EDIE) Integration”, “Less stringent reporting requirements”, “Different database structure or platform”, “Alaska ranks neither the same nor worse than the other state”, “Not applicable - I am not registered with another state PDMP” and “Other”), respondents reported that the comparison state had fewer fees (3), shares data with more states (2), has a simpler user interface (1), is more stringent (1), has a more effective delegate protocol (1), or provides patient alerts (1).

APPENDIX E: SURVEY FEEDBACK

APPENDIX F: POSTER