

## Future of PDMPs

### **Don Vogt, PDMP TTAC:**

Welcome. Thank you for listening to this podcast from the Prescription Drug Monitoring Program Training and Technical Assistance Center, better known as PDMP TTAC. TTAC provides a comprehensive array of services, resources, strategies for PDMPs, federal partners, and other stakeholders. TTAC supports the efforts and effectiveness of PDMPs in combating the misuse, abuse, and diversion of prescription drugs. Our focus is to facilitate PDMP program goals and objectives with government agencies, public interest, private organizations. TTAC collects data on the operation and performance of PDMP programs and promotes best practices. Funding and support for TTAC is provided by the U.S. Department of Justice Office of Justice Programs, Bureau of Justice Assistance, or BJA. BJA supports PDMPs through the Harold Rogers PDMP Grant Program. The opinions expressed in this podcast are not necessarily those of the US Department of Justice.

### **Patrick Knue, PDMP TTAC:**

Hello, my name is Pat Knue. I'm the director of PDMP Training and Technical Assistance Center, or TTAC. Prescription drug monitoring programs are designed to facilitate the collection, analysis, and reporting of information on the prescribing, dispensing, and use of prescription drugs within a state. An overriding goal of PDMPs is to uphold both the state laws ensuring access to appropriate pharmaceutical care by citizens and the state laws deterring prescription drug diversion.

The earliest PDMPs were established primarily as enforcement and regulatory tools, providing data to officials responsible for enforcing drug laws and overseeing the prescribing and dispensing of these drugs by healthcare professionals. While this role continues in almost all current PDMPs, the focus of PDMPs has shifted to enhanced patient care and assist in developing drug abuse prevention and treatment strategies.

PDMPs are continuously evolving and being more responsive to stakeholders with more timely and accurate information. Consequently, PDMPs are widely recognized as an important tool in addressing the drug abuse epidemic. Even with their success, PDMPs continue to evolve into one of the most efficient and effective tools to reduce prescription drug abuse, substance use disorder, and diversion.

Our podcast, The Future of PDMPs, will explore where PDMPs may be headed within the next five to 10 years. We will delve into a variety of topics with two PDMP administrators, Kevin Borchert, Vice President of Pharmacy Informatics with the Nebraska PDMP and Jean Hall, the program administrator with Kasper, Kentucky's PDMP. Thank you both for taking time to talk with us today. Jean, let's start with you. If you

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were starting a system from scratch and knowing what you know now about PDMPs, what would you keep, what would you change, and what would you add that's new?

## **Jean Hall, PDMP Kentucky:**

I think PDMPs need to shift our thinking from, "How do we stop behavior and how do we reduce harm?" I think those are very important things that we do today and I'm not saying we stop doing them, but I think we have to stop that from being our primary focus. "How do we stop behavior?" Because when we are stop behavior, the behavior's already happening. If we're reducing harm, it's almost inherent that the harm is already there and I think we need to shift our thinking to, "How do we intercept or prevent these things? How do we see things before they get to the point of harm for a patient, and how do we intercept? How do we provide tools that may aid providers in helping the patient not reach that point?"

And instead of, "How do we stop behavior? and some of it, which is criminal, when it's way down the line, to, "How do we intercept that behavior and prevent it from going further?" And I think that's one of the fundamental shifts we need to make, as PDMPs, moving into the future. And analytics is part of how we get there. How do we do more analytics? How do we provide analytic tools that get us there? That get us to the point where we are pointing out things before they become a harmful situation or being able to help identify things that are escalating in a certain pattern.

## **Patrick Knue, PDMP TTAC:**

Great point, Jean. I know that many people have given a lot of thought about maximizing PDMP potential, but what would you keep, change, or add to PDMPs?

## **Jean Hall, PDMP Kentucky:**

To answer that, Pat, I think you need to think about or ask ourselves, "What is our purpose today? And what's our intended impact?" Many PDMPs started as law enforcement or regulatory entities and today, that is still an important component of the work we do, but we've evolved to part of our purpose being public health assessment and a significant part of our purpose being safety and care of patient. And as far as impact, I know that here in Kentucky, we look at ourselves and say that, "We want to be active participants in building healthier communities." So, if you think of all of those things, you have to think about what do we provide to do that? Or how do we do that? And I think we do that by identifying risk. We do that by identifying trends. We look at issues like misuse or diversion. But in a lot of respects, over the years, we've done a lot of that retroactively and in order to evolve and grow, I think we need to start being more proactive. Building more proactive tools within our systems; things that can be actionable, not just by us, but by our users. So, when you're thinking about that, you definitely have to think about those additional data elements to support. What information can we provide beyond the basic prescription record information that we're providing today? And how can we create systems that can react to the changing needs of our user community dynamically to be ready for the next changes coming around? Sometimes I feel like we've been a little behind. Okay, we decide we want this alert. So we have to build these alerts out. And now there's new issues emerging. There's new emerging trends. And so, I think it's not just in what we keep, but changing how we build our systems so that we can be more

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dynamic and respond to changes in our environment more quickly, more easily. I'd like to see some additional data elements around patient identification; other data sources that might help provide our providers a more complete picture of their patients or maybe data sources that help them use the information that we have.

**Patrick Knue, PDMP TTAC:**

Thank you, Jean. You mentioned the additional data elements, and we're going to cover that a little later in our podcast. But Kevin, same question. If you were starting a PDMP from scratch, what would you keep, change, or add?

**Kevin Borchert, PDMP Nebraska:**

Well, thank you for having me today, Pat. I really appreciate that. Your question is a very good one. There are always opportunities for improvement in innovation in the PDMPs. There's a growing interest in expanding prescription drug monitoring programs beyond the traditional use of controlled substance fraud and diversion to a system used more for public health and patient safety. And the innovation is important to keep up with the evolving landscape of PDMPs, to align with both state and federal policy and what the stakeholders are looking for. As an example, Nebraska was the first state to leverage existing PDMP functionality, to be able to report all prescriptions, not just controlled substances, making it the most comprehensive medication history for Nebraska patients.

We find it useful to understand how the system is used by various stakeholders and improve that functionality based on that stakeholder input. We have expectations of a PDMP to meet the needs of its submitters, clinicians, law enforcement, epidemiologists, and of course the PDMP administrators, to elicit the input from them to make that improvement and innovation in these systems.

More to your original question, we'd like to see the key components of PDMPs enhanced through the different major components or systems; everywhere from the submission ingestion to the validation and error correction to the clinician display and user experience, the alerting and reporting, and the analytics system for the PDMP administrators, whether it's for public health or law enforcement. And of course, use of the PDMP through interoperability, both interstate data sharing as well as intrastate data sharing through the workflow integration of providers.

**Patrick Knue, PDMP TTAC:**

One follow-up question, Kevin. You mentioned innovation as a key factor in the growth of PDMPs, and you specifically mentioned collecting data on all prescription drugs. Can you provide some examples in how providing information to providers on non-controlled substance prescriptions has impacted healthcare in Nebraska?

**Kevin Borchert, PDMP Nebraska:**

Sure. As more and more states are actually partaking in this, states are collecting what are considered drugs of concern or non-controlled substances such as Gabapentin. One state is collecting insulin and

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diabetic supplies. And in Nebraska, particularly with all prescriptions, we're focused based on our stakeholder input from the providers, hospitals, to be able to have all prescriptions. There are other systems that do have and allow for a medication history, but it's oftentimes incomplete or not up to date. And with the advantages the PDMPs have, with collecting all prescriptions and several important data elements in potentially near real-time, this gives providers valuable information to make better informed treatment decisions for their patients. And they can look at anything from compliance, or in more particularly, non-compliance of prescriptions, to looking at medications where other providers may be prescribing medications that those providers, be it a prescriber or a pharmacist, may not be aware of and prevent potential severe drug interactions.

## **Patrick Knue, PDMP TTAC:**

I can definitely see that collecting information on all prescription drugs could be an asset to healthcare providers and their patients. As you know, PDMPs receive data containing prescriber and dispenser details, medication information, patient information, and some states collect diagnosis codes. Are there any other data elements that you believe would be relevant or beneficial for PDMPs to capture? If so, why?

## **Kevin Borchert, PDMP Nebraska:**

Well as I think you mentioned, Pat, patient identifiers are very important to this. That's something that can be used for all PDMPs and would be one of the fields that I'd like to see enhanced. Although the ASAP format does include a couple of options for patient identifiers, it's not as robust as it could be. When you're looking at healthcare facilities that can capture more patient identification information used for patient matching, I think that's something that I'd really like to see improved upon.

## **Jean Hall, PDMP Kentucky:**

I think where we can capture patient identifying information that may be able to better help us match our patients, it may be controversial to say, but payer information. If we knew more information that we can tie patients together and understand that this is actually the same information, such as insurance payer, maybe insurance numbers. I don't know the legalities of all of that, but it is information that healthcare entities are already using to help identify the same patient and if we can extend that across to the PDMP, it may be able to help us better analyze and identify patients. I think that there may be other information out there that could help us with patient identification.

## **Patrick Knue, PDMP TTAC:**

Jean, your suggestions of using third-party payer information and the insurance number is very interesting. Kevin, what are your thoughts?

## **Kevin Borchert, PDMP Nebraska:**

The patient and pharmacy addresses are collected in the PDMP data, but there's no field for prescriber address. This can be useful for analytics as well as aligning with the SUPPORT Act, which speaks

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specifically about information of the name, location, and contact information of a Medicaid-covered provider and can help with some of that analytics reporting in identifying areas where patients may be going in; how far away they're going for their prescriptions. As federal legislation and policy is taking steps to align the outdated 42 CFR Part 2 with HIPAA, this can provide clinicians with greater visibility into the opioid use disorder and being able to provide better treatment. Until this legislation is enacted though, PDMPs must treat Part 2 data, from narcotic treatment programs, differently and with greater discretion than other PDMP data. And data elements should identify a Part 2 program, and the patient's providing consent to disclose that information would be useful.

## **Patrick Knue, PDMP TTAC:**

Capturing that information would be useful. Jean, any other thoughts on data that might be collected by a PDMP?

## **Jean Hall, PDMP Kentucky:**

The prescription record information is pretty much the information that's available. But if we can capture other information, so that we can accurately connect those patients to each other appropriately or identify trends in patient information that would lead us to link them together for other reasons, like patients who have a recent name change; we've talked a little bit about that. Or patients who have altered a variety of information across a continuum that actually helps you link them together. If you talk to law enforcement, they'll tell you that, a lot of times, patients, when they vary that, a demographic or other information, they don't vary it far, so that, if you can look at it across time, you can realize this is probably the same individual, especially if there's other data elements, like their payer information, that can help you pull them together.

## **Kevin Borchert, PDMP Nebraska:**

As some prescriptions also may be voided or revised multiple times, knowing when the last best revision is submitted can allow for that accurate information, so you're not overriding an older prescription record and using that instead of a newer one that should be used. And a date time stamp for each transaction could be beneficial for that, especially if you're having pharmacies, which may be revising that prescription for a variety of reasons.

## **Patrick Knue, PDMP TTAC:**

Thank you both. It appears that you both agree that additional information and other data elements would be beneficial. Now, let's talk about patient matching. As you mentioned, Kevin, patient matching is a big challenge for PDMPs and has been since they started. What do you think are some of the best methods or practices to address the patient matching challenges?

## **Kevin Borchert, PDMP Nebraska:**

Well, as exactly that you said, Pat. Patient matching has been and continues to be one of the largest challenges of PDMPs. So, some form of standard, consistent, and universal patient identifier would be

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critical for the success of PDMPs. Some of this may depend on pharmacies, on hardware, such as if we were using biometrics. And some of the challenges involved with that are around mail order pharmacies that may not have the capability to do biometrics.

The PDMP vendors work to improve those gaps with patient matching. And the PMIX standard organization is comprised of PDMP experts and stakeholders, including the Office of National Coordinator for Health Information Technology, or the ONC, and it's working to address some of these challenges together. One such initiative that the ONC has is called Project US@, which focuses on the standardization of entering and using patient addresses. And this sounds like it's relatively simple to address, pun intended, but actually it has a lot of complexities to it. And remembering that this prescription information for patients comes from pharmacies in disparate systems. And I think one of the easier methods to at least start this is to have an education program for the pharmacist and the pharmacy staff. And I think that'd be a good place to begin, in conjunction with these activities by pharmacy software vendors and working with the PDMP vendors on this.

## **Patrick Knue, PDMP TTAC:**

As a follow-up to that, do you have any insight about Project US@ or how it's working with the postal service to standardize addresses? And are you aware of any efforts to work with the pharmacy vendors to use those standards?

## **Kevin Borchert, PDMP Nebraska:**

Sure. The ONC began, earlier in 2021, this initiative for Project US@ and they are focusing the use of the what's called USPS Publication 28, which has standardization for that normalization of addresses. ONC has had several stakeholder meetings, both from the technical side, as well as other stakeholders involved in this, to bring them together, from a lot of subject matter experts, from patient matching companies, to EHR and pharmacy software companies, to help identify some of these opportunities to improve this, both short term and long term. And I think, with some of the recommendations and guidelines that the ONC will have with this Project US@ initiative, is going to give great guidelines for software vendors to be able to help with some of this standardization and normalization of addresses.

## **Patrick Knue, PDMP TTAC:**

Thanks, Kevin. Jean, what are your thoughts about patient matching?

## **Jean Hall, PDMP Kentucky:**

I'm a firm believer that those government-issued IDs and maybe insurance coverage kind of information could be a significant aid in identifying patients at least identifying patients. It may not help us always identify patients who are intentionally trying to mislead us, but it definitely helps us identify people who are not trying to mislead us. And so, in doing that, at times, that makes the other set of behaviors become more noticeable and can possibly even aid us in identifying those as outliers from normal practice. So, I definitely believe things like government-issued IDs; I feel like if we had information on

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their health insurance policies or group numbers or insurance IDs, things that we can use to link them together, would be very helpful.

I also think that you have to really build this stuff algorithmically. And the more sophisticated you get, the better off you're going to be in identifying trends that would cause you to link these patients together. I believe, in weighted processes, so that anything that might, on the surface, look like, "Oh, that's a match;" if there's other factors that are impacting that match, it might take that weighting down lower or push it up higher. I also think that we don't see those patients, so we don't know for a fact these people are the same people, but I think we can know for them how well we feel we've matched. If we have those weightings, or we have a scoring system or something like that, then we could give tools to the providers to understand that this one, though it matched, did not match as well as this one. And that can be a tool for them to have conversations with their patients. If one looks like a very strong match, that may not be the demographic information that they focus in on. They focus in on the one that might be questionable and they can ask key questions to identify whether they do think that that is their patient or whether they need to explore that further by contacting the other providers in order to determine whether they're seeing the same patient.

## **Patrick Knue, PDMP TTAC:**

Jean, as you mentioned earlier, PDMPs were originally implemented as law enforcement and regulatory tools. Later, they became a tool for patient healthcare. Now, that evolution took almost 50 years. I think we all could agree that allowing PDMP access to healthcare users has been a benefit; that as PDMPs evolve, some PDMPs now allow access to the data by other professions, such as drug counselors or substance use disorder treatment programs. In your opinion, what other types of users would benefit from PDMP access?

## **Jean Hall, PDMP Kentucky:**

So I think, from Kentucky's perspective, our prescribers have to be DEA-licensed prescribers. And I think there's merits in other physicians, APRNs, and physician assistants being able to view the information. A difficult conversation may not be initiated by the prescriber that is actually prescribing the drugs. It's very possible that a difficult conversation may be initiated by somebody else in the patient's care team.

And so, if we limit it to those folks, we're limiting that opportunity. One of the things we've really promoted in integration is, "You may not be the individual prescribing the controlled substance, but if this is your patient, can we make it easy for you to look at your patient's controlled substance history as it relates to the care you're providing and maybe as it relates to the overall welfare of your patient?" So I think that's one piece of it. I think that if you're going to encourage, and I think that many PDMPs are partnering like we are, with entities that are promoting substance use disorder treatment, like Find Help Now KY. And if you're going to promote that relationship, where we're trying to help get patients who need care into substance use disorder treatment, we're providing tools for our providers to make those recommendations, then why wouldn't we help the folks that are trying to help the patients, encourage success from their patients? So folks like drug counselors, case managers, within certain disciplines, I think could be very appropriate as well. I don't necessarily think any case manager involved in a family

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should necessarily have access to that information, but maybe case managers involved with their substance use disorder treatment should have access as well. And I think you get what I'm saying. There's a delicate balance of who you do provide this information to and when it is and is not appropriate. But, there are, I think there are some folks out there that are involved in trying to ensure success of people in substance use disorder treatment. There's folks who are involved in the care of patients, like prescribers who do not prescribe controlled substances, who may be able to help intervene and support folks who would require assisted treatment intervention, or just are able to address other patient safety issues that may not be substance use disorder-related.

### **Patrick Knue, PDMP TTAC:**

Kevin, who do you think would benefit from access to PDMP data?

### **Kevin Borchert, PDMP Nebraska:**

The opioid crisis has been a catalyst, whether good or bad, to help support and utilize the PDMP for these purposes. More and more states are considering or even enacting legislation to report non-controlled substances, maybe similar to or a little bit different than Nebraska's all prescription model. By leveraging the existing PDMP infrastructure for controlled substances, these enhancements and innovations can allow for the report of either specific non-controlled substances or even all non-controlled substances. Then, who should be allowed to see this? "Clinicians" can be a broad term, whether it's physicians, nurse practitioners, PAs, pharmacists, their delegates as well, but you have, as you mentioned, drug counselors, psychologists, physical therapists, that all can play a part in understanding a more holistic and fuller picture of the patient's prescription history to be able to make better decisions in their treatment, maybe not just for prescribing, but as physical therapists are trying to understand, as an example, how to treat a patient, they may want to know what prescriptions they're on, when they're being taken and that might help modify their treatment plan. The data for public health can be powerful to identify some of these trends and patterns of the prescription dispensing of an acute or chronic disease and those additional healthcare professionals that I had mentioned, whether they're allowed by statute, can have a greater visibility into the patient's health information for these better informed decisions and the treatment recommendations.

### **Patrick Knue, PDMP TTAC:**

Thanks, Kevin. PDMPs have historically captured just information from the prescriptions. There are now some PDMPs that are collecting data from other sources, such as Naloxone administrations or dispensings or arrest and conviction data. Do you see the value in collecting alternate data or linking to other data sets for public health purposes? If you do, what types of data should that be?

### **Kevin Borchert, PDMP Nebraska:**

No, I definitely see some benefits from providing clinicians with more data such as that. It gives those providers more information to, once again, make better informed decisions with respect to the patient's care and treatment. Whether it's justice system information, a pain management agreement, maybe



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drug overdose data, lab and tox information, this can all give providers that potentially valuable information. And greater integration between EHRs and HIEs, with the PDMPs, can increase capabilities so that you may not only have the prescription information, but you can pull in more health information to be able to, once again, have a better picture of what's going on with that patient for better treatment and, ultimately, patient health and safety.

## **Patrick Knue, PDMP TTAC:**

Jean, what are your thoughts on this?

## **Jean Hall, PDMP Kentucky:**

I think there's tremendous value. And if your PDMP is well utilized, which I think many of them around the country are very well utilized, you're a point of entry to some other information that could be potentially made available to your providers that would help them make quality patient care decisions, clinical care decisions. And I think things like Naloxone data, if handled appropriately, because there are some challenges in capturing Naloxone data. We here in Kentucky provide nonfatal overdose information. Patients who you're seeing in Kentucky ED for a nonfatal overdose and have a positive toxicology screen for the presence of a substance, we present that on our report.

There's even times where there might be other information that doesn't meet that requirement that our Kentucky Health Information Exchange could provide and would be valuable to the providers or at least an indicator to go look at information elsewhere. We're actually looking, here in Kentucky, to providing integration with the "Find Help Now KY" tool where we can actually help the provider zero in on the most appropriate resources for substance use disorders. So, while that's not a data, it's a link to another tool. And I think anywhere, even in that respect, we can give providers links to tools that will help them analyze their patient and make clinical decisions that would be helpful. I think, as we go further down this path of integration, the front ends of access to information isn't necessarily going to be our state PDMP systems. It may be for a small set of folks, but if we can take analytics and other data sets and tools that we might be able to find available or create and make available, and we evolve the PDMP into kind of a tier two of looking at their patients. Should they look at this patient? And maybe we have sent them alerts. Or maybe the patient just looks very complex, and they viewed that base information their integrated solution. If from that case, where it's complex or we've sent alerts, they could actually get back to the PDMP analytics and tools to show them a deeper dive of why we think that the patient's trending towards an issue or exactly why is the patient generated this alert? I think we should look towards doing those things. So, the front end's going to happen in integration and the front end is going to have the same basic PDMP information we've had. It may have alerts that we've sent them. And then, if that patient is one of these complex patients who has a lot of information on their report, a lot of history, they have maybe some alerts about Naloxone administrations or nonfatal overdoses, where we can link them back through kind of a tier two of PDMP that initial evaluation happens in the integrated solution. And then, if you want to take a deeper dive, it directs you back into the PDMP system. And we can provide access to that other information. And we make that access easy. I think that that would add tremendous value for the providers.

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And I'll just give you an example of that. Today, we put an alert on our report. And we're hoping for the upcoming PMIX changes to be able to send that to our integrated partner that says, "The Kentucky Health Information Exchange has information on a suspected nonfatal overdose incident for the patient." So, if that alert goes out, in the future I'd like to see the provider be able to click on the link associated with that alert and it will come back to KASPER. And KASPER has a trust relationship with the Kentucky Health Information Exchange that can bring them right to the progress notes and the toxicology screens and the discharge summary from that incident in the ED, so that provider doesn't have to go looking for that information; we help them get there. And when we help them get there, we're providing them with more clinical information specific to their patient, then it can help them make a better clinical decision for the care of that patient.

**Patrick Knue, PDMP TTAC:**

Thank you, Jean. Last topic for discussion. Kevin, what current technologies do you see PDMPs possibly adopting to help further their goals and improve on public health and safety? Now, when I say "technologies," I'm referring to incorporating things like artificial intelligence, machine learning, predictive analysis, things like that.

**Kevin Borchert, PDMP Nebraska:**

Yes. AI machine learning is already being used in some systems for patient matching. That can improve that, as one type of innovation or enhancement in the systems. And this can all be enhanced through referential national databases to improve patient matching even further for that, as we've spoken about patient matching, which is one of the biggest challenges.

Many states do have different types of analytics platforms that are more descriptive in nature, meaning that they simply list out or report on information. But moving toward a predictive model or even a prescriptive analytics model, which can make recommendations, to some extent, to provide more of a tool for providers, can be used in the future. And this can be achieved through that interoperability with electronic health records or health information exchanges that have a more comprehensive, longitudinal health record to include more data and information for these better treatment decisions, using some of these newer tools to ultimately improve patient health and safety.

**Patrick Knue, PDMP TTAC:**

Thanks. Though Kevin, to be honest with you, artificial intelligence, machine learning is over my head, but do you foresee a future where using AI or machine learning where it could evolve to a point that it could actually predict patient behavior that could be clinically reliable?

**Kevin Borchert, PDMP Nebraska:**

Yes, actually. Those systems are being used, in various systems through EHRs and HIEs today, to look at maybe not just prescription information but other health information, to be either predictive or even prescriptive, on being allowed to have a tool to help providers make decisions.

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**Patrick Knue, PDMP TTAC:**

Thanks, Kevin. Jean, what do you think?

**Jean Hall, PDMP Kentucky:**

I'm sure you've already assumed, from what I've shared before, that I'm a big advocate for predictive analysis. I think where we can show patterns and how a patient might relate to a pattern, where we can actually look at our own landscape and extrapolate where we think that's going, so that we can be more proactive that and where we can do things that can help us find actionable items, ways to put information into action. I think there's probably opportunity for artificial intelligence and machine learning, definitely, but my biggest want is to see us to use more in analytics in the work we do; do more predictive analysis. And then the other piece is that the technology that we're building applications on today is very different than the technology that our applications were built on when we went to electronic PDMP systems. And we need to actually take advantage of that technology and make more dynamic solutions and create platforms in a dynamic way so that we can respond to changes in our environment more readily.

What I would add, in closing, is that we have been looking here at our systems and our tools. And we are today focusing more and more on training and linkage to information that can aid in the use of our tools, and I would urge other PDMPs to do the same. We can show somebody technology, then can we bring to them an expert that can help them know how to use that technology in their clinical decision-making process? Again, it's not necessarily that we're giving those recommendations, but we're linking them to resources where they can take what they get from us and turn that into actionable items themselves. And we're looking at how we're going to do that and how we're going to partner with other entities like our Department of Behavioral Health or Department of Public Health and maybe doing some collaborative education or training materials.

We are also working very hard at the YouTube era of training materials on even our system, and what the information in our system means, by doing little, short videos on, "How to use this part," or, "What did these data elements use?" "How is this calculated?" Or, we did two of them recently one was on interstate data sharing, basics of interstate data sharing. What you need to know about that request you're making to another state and the data that you would get back. How does that work? So, I think that that's another piece of what I think should be in our future planning as PDMPs.

**Patrick Knue, PDMP TTAC:**

Thank you both for sharing your thoughts on the future of PDMPs. Your comments will certainly give people some ideas to consider. I also want to thank our audience for taking the time to listen to this podcast. Now, although we only talked with representatives from two PDMPs, please know that each of the 54 PDMPs work diligently to improve the PDMPs' effectiveness and value for their users. The future of PDMPs will be quite exciting.