Integrated Nationwide Prescription Drug Monitoring Program

Background Paper Prepared for the 2014–2015 APhA Policy Committee
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Issue

The American Pharmacists Association (APhA) Board of Trustees has directed the 2014–2015 Policy Committee to recommend policy to the APhA House of Delegates concerning a National Prescription Drug Monitoring Program (NPDP). Topics to be explored, per the direction of the APhA Board of Trustees, include components and standardization of an NPDP, variability among controlled substance regulations between states, incorporation of drug monitoring programs into the pharmacist’s patient care process, data reporting, and financial feasibility of an NPDP.

The abuse, misuse, and diversion of controlled medications is a nationwide problem. Between 1999 and 2010, prescription opioid sales quadrupled. The rise in opioid prescriptions was mirrored by an increase in opioid-related deaths, resulting in a mortality rate four times higher in 2008 than in 1999. In addition to a rise in opioid-related deaths, a rise in emergency department visits for opioid-related medical problems doubled between 2004 and 2007. Likewise, admissions to abuse treatment centers rose, with prescription opioids being the second leading cause of admissions. In response to the rise in opioid prescription abuse, misuse, and diversion, prescription monitoring programs were developed, first in California using resources available such as carbon copies, U.S. mail, and triplicate forms. In 2011, through national funding and the increased focus on prescription monitoring by the White House Office of National Drug Control Policy, states received additional support to create prescription drug monitoring programs (PDMPs). By 2013, 49 states passed laws enabling the creation of these programs.¹

Currently, participating states oversee their own drug monitoring programs. Despite the growth and implementation of PDMPs in each state, their inability to facilitate interstate communication limits pharmacists’ and physicians’ ability to utilize these tools to their fullest potential. The National Institutes of Health published a manuscript addressing the concerns associated with PDMPs’ inability to allow interstate communication and barriers associated with varying PDMPs.¹ Other authors attempt to study the impact that state PDMPs have on treatment referral, medication abuse, misuse, and diversion, as well as the impact on patient care, but the researchers find generalizing the data or combining PDMP data difficult due to the variations in state PDMPs.²⁻³ It seems that a national prescription drug monitoring program may be beneficial, but no organizations or groups have published reports outlining standards or recommendations for an NPDP.

Summary of Concepts

- Medication abuse, misuse, and diversion is a national problem affecting all states.
- The use of a national prescription drug monitoring program would assist with PDMP data sharing and interstate connectivity.
- Barriers such as ineffective communication, inconsistency between state monitoring programs, insufficient funding, and lack of incorporation into the patient care process prevent efficient and optimal use of PDMPs.
• Although use of PDMPs in most states is expected, no defined regulations have been created to ensure the appropriate, consistent, efficient, and optimal use and access of PDMP data.
• Pharmacists, as medication experts and dispensers, have an opportunity to play a significant role in helping to curtail medication abuse, misuse, and diversion.
• PDMPs should be incorporated into health care professionals’ workflow through the study of current pilot programs and the use of health information technology (IT) to provide access to the data for all health care providers.
• A number of key aspects have been identified that allow for a successful PDMP.
• DMPs should continue to be studied to ensure their quality, efficacy, and efficiency for health care providers and patients.

Background

Definitions

For the purposes of this discussion paper, the following definitions will be used:

Prescription Drug Monitoring Program (PDMP)
According to the National Alliance for Model State Drug Laws (NAMSDL), a PDMP is a statewide electronic database that collects designated data on substances dispensed in the state. The PDMP is housed by a specified statewide regulatory, administrative, or law enforcement agency. The housing agency distributes data from the database to individuals who are authorized under state law to receive the information for purposes of their profession.⁴

Controlled Substances
A controlled substance is a drug or chemical whose manufacture, possession, or use is regulated by a government and whose general availability is restricted. Controlled substances are subject to government control. They may include prescription medications and drugs or other substances that are strictly regulated or outlawed because of their potential for abuse or addiction.⁴

White House Office of National Drug Control Policy (ONDCP)
ONDCP was created by the Anti-Drug Abuse Act of 1988. ONDCP advises the President on drug-control issues, coordinates drug-control activities and related funding across the federal government, and produces the annual National Drug Control Strategy, which outlines administration efforts to reduce illicit drug use, manufacturing and trafficking, drug-related crime and violence, and drug-related health consequences.⁵

National Drug Control Strategy
The ONDCP’s National Drug Control Strategy outlines innovative policies and programs and recognizes that substance use is not only a criminal justice issue but also a major public health concern.⁶

2014 Reform Drug Policy
This policy focuses on prevention, expansion, reform, and support. Prevention strategies will use education to prevent drug use before it begins. Expansion will increase patient access to treatment centers. Reform will change the legal system to break the cycle of drug use, crime, and incarceration while maintaining the safety of the public. Support will focus on working to eliminate or reduce the stigma associated with substance abuse or disorders to provide greater support for Americans struggling with substance abuse.⁷
Benefits of PDMPs
The overview provided by NAMSDL clearly identifies the benefits of a PDMP as a tool used by states to address prescription drug abuse, addiction, and diversion. It may serve several purposes:

1. Support access to legitimate medical use of controlled substances
2. Either prevent or identify and deter drug abuse and diversion
3. Facilitate and encourage the identification of persons potentially involved in medication abuse, misuse, or diversion
4. Inform public health initiatives through outlining medication use and abuse trends
5. Educate individuals about PDMPs and the use, abuse, diversion of, and addiction to prescription drugs

PDMP facts
As of June 2014, 49 states and the District of Columbia (DC) have enacted PDMP legislation, and 48 of the 49 states currently have operational PDMP programs; only DC and New Hampshire do not have operational programs. The majority of the states’ programs require submission of prescription data within 1 week of collection, with a few processing the information within 1 to 3 days. Oklahoma is the only state that processes the information in real time. The majority of states’ PDMP information is housed in health departments, single state authorities, or the board of pharmacy, but the PDMPs of five states are regulated by law enforcement agencies. For example, Georgia’s PDMP is regulated by the Narcotic and Drug Agency under the direction and oversight of the Board of Pharmacy. Although each state’s program regulations vary concerning who can access the PDMP information, the majority allow access by the following entities: licensing and regulatory boards; practitioners; authorized agents; law enforcement officials (pursuant to an active investigation); judicial and prosecutorial officials; Medicare, Medicaid, and State Health Insurance Programs; patients; parents (either with or without a consent form); prescribers; and dispensers. In addition, approximately 50% of the states provide immunity to prescribers and dispensers, meaning the data collected through PDMPs cannot be used to accuse prescribers or dispensers of illegal or unethical activity. Finally, the majority of states have some regulation in place to deter users of PDMP services from disclosing or obtaining information unethically.

Components of a Strong Prescription Drug Monitoring Program as identified by the National Alliance for Modern State Drug Laws

1. Drugs Monitored: The medications monitored should be those having high abuse potential, including controlled substances, but also medications that have a history of abuse but are not classified as a C-II through C-V medication.
2. Disclosure: PDMPs should proactively provide information to prescribers, dispensers, law enforcement, and occupational licensing individuals.
3. De-identified Information: De-identified information should be allowed for release to individuals, groups, or organizations using the information for any of the following purposes: statistical analysis, public research, public policy, or educational purposes. Information that should be removed must include anything that could identify or reasonably identify the patient, prescriber, dispenser, or other person who is the subject of the information.
4. Authorized Users: Authorized persons include dispensers, prescribers, law enforcement officials (pursuant to an active investigation), prosecutorial officials, health licensing agencies, boards for prescribers or dispensers, and patients. In addition, other authorized users who may be considered
are those who will use this information to enhance patient care or patient safety, for example, medical examiners, coroners, and representatives of drug and alcohol abuse treatment centers.

5. **Authorized Users Training and Education:** All authorized users who may access the information should prove they have the education and training to use the PDMP data appropriately.

6. **Standards of Procedure for Access and Use of PDMP Data:** Providing standards of use should stand to decrease abuse and misuse of the system. In addition, standards of procedure will allow the PDMP to be utilized to its full capacity to improve patient care and safety.

7. **Linkage to Addiction Treatment Professionals:** Allowing linkage to addiction treatment professionals may enhance the PDMP’s ability to identify patients who qualify for addiction treatment centers.

8. **Interstate Sharing of PDMP Data:** Recipients of PDMP data from other states may include prescribers, dispensers, law enforcement representatives, PDMP officials, or other specified authorities.

9. **Confidentiality Protections:** The confidentiality protections should not only outline regulations but also provide information concerning penalties for nonessential disclosure of the confidential information. To prevent improper disclosure, the PDMP managing body should maintain procedures to protect the privacy and confidentiality of patients and to ensure that data collected, recorded, transmitted, and maintained pursuant to the PDMP law are not disclosed or used except as authorized by the law.

10. **Evaluation Component:** The evaluation component of the PDMP is necessary to determine the cost benefit of the program and identify the impacts of the use of PDMP data on authorized users’ practices. It will also provide a means to identify potential operational improvements. It is suggested that the evaluation component consist of an advisory committee.

**Discussion**

Due to the rise in prescription drug abuse, misuse, and diversion in the United States, the government provided national funding through the White House ONDCP to support the development of prescription monitoring programs for each state. By condensing prescription dispensing information into one database, PDMPs provide health care providers with the opportunity to review a patient’s medication history and assist them with decisions concerning their medication regimen. For example, PDMPs allow physicians to identify patients who may benefit from substance abuse counseling, prevent prescribing that may result in overdose, help coordinate patient care, and perhaps identify patients and practitioners who abuse or divert prescription drugs. It is for these reasons that the Centers for Disease Control and Prevention (CDC) as well as the President support the use of PDMPs.

Despite national support of the development of state-based drug monitoring programs, the creation of these programs has been controversial. Prescription monitoring programs were originally designed to assist with law enforcement and decrease opioid abuse and diversion; however, they have secondarily facilitated addressing public health concerns by allowing monitoring of physician prescribing and identifying opportunities for addiction services. This secondary role has left some physicians feeling scrutinized, which may affect their opioid prescribing. This situation in turn may lead to over- or under-prescribing of opioids resulting in inappropriate or inadequate pain management. In addition, concerns are raised about privacy and the inadvertent release of private information. In conjunction with privacy concerns are concerns about who should have access to data collected by drug monitoring programs and how often. Finally, the impact of prescription monitoring programs on patient care is also under question. It is yet to be determined whether PDMPs improve or worsen patient care. No evidence exists to support
the notion that PDMPs have significantly assisted with situations mentioned above or helped regulatory agencies identify illegal activities. Lack of significant data could be due to an inconsistency among different state programs, including variations and frequent changes in PDMP laws.

In addition to being unable to identify whether PDMPs affect patient care and the control of illegal and unethical activities, PDMPs are also limited by their individual state-to-state use. Because each state has its own program with different regulations and collection guidelines, the information is not readily shared across state lines, making the monitoring of individuals who have moved or travel frequently difficult. With the increase in travel across state lines and the inability to study the impact of PDMPs and their cost benefit, it has been suggested that the creation of a National Prescription Drug Monitoring Program (NPDMP) may be beneficial.\(^7\) An NPDMP would provide a means to use data from different states when a person travels or moves. However, the NPDMP opportunity does not come without barriers. To create, establish, and execute an NPDMP, legislative action, including funding, will need to commence; then standards and regulations must be created by the appropriate federal agency.

**Potential Approach to a National Prescription Drug Monitoring Program**

A National Prescription Drug Monitoring Program concept has been mentioned and supported by some health care providers, the Bureau of Justice Assistance, and the National Institutes of Health as a means to enhance the fight against prescription drug abuse, misuse, and diversion; identify patients for abuse treatment programs; provide a database for states not currently using a PDMP; and provide uniform expectations for prescribers, dispensers, and consumers.\(^1,8\) However, the federal government and CDC do not support a National Prescription Drug Monitoring Program. This lack of support may be due to a lack of awareness of the deficiencies in having individual PDMPs operated in each state. These deficiencies include the inability to adequately study the effects a PDMP has on patient care and safety, the difficulty involved in interstate communication, and a low level of understanding of the issues associated with the lack of standardization or consistency among state PDMPs. The lack of standardization prevents the linkage of state programs. Therefore, the Council of State Governments, Congressman Hal Rogers of Kentucky, and the National Association of Boards of Pharmacy have discussed interoperability standards to facilitate interstate communication.\(^1\) In addition, standardization would prevent the abuse of some controlled substances from going unidentified. For instance, a patient’s abuse or misuse may continue unidentified due to substitution with a medication that is not on the PDMPs list of medications required to be monitored.

Recommendations include both standardizing the medications to be monitored, and standardizing the way in which access is granted. Web-based PDMPs seem to provide the most benefit, by allowing immediate access to data versus waiting on information via fax, telephone, or mail. Another recommendation is to standardize the length of time prescribers and pharmacists are given to report information to the database. Because daily or real-time reporting may be burdensome and monthly reporting may be suboptimal, it may be most appropriate for pharmacies to report information to the PDMP every week. Determining a standard reporting time would need to be agreed upon nationally and would most likely require further evaluation. Finally, all states should be required to ensure the accuracy of data, determine the impact of the program, and evaluate responses to program changes through an evaluation process.

A key consideration in the discussion of a drug monitoring program is the type of program to be implemented. Studies have shown that proactive programs with periodic unsolicited audits perform better than those that do not require these audits.\(^1,9\) Standard reviews would provide more data and information pertaining to drug abuse and misuse such as geographical areas of high incidences, patients filling prescriptions from five or more prescribers within a 6-month period, patients who submit prescriptions in an overlapping period, and identification of at-risk co-prescriptions.
Implementing education and training requirements to ensure program awareness as well as an understanding of the protocols and procedures regulating the program may be necessary. One barrier to using the NPDPMP may be an inability to incorporate it into clinical workflow. To make the data provided by the NPDPMP more accessible, an increase in authorized users of the PDMP may be necessary. Allowing for better incorporation of PDMP data into workflow is supported by the Substance Abuse and Mental Health Services Administration, which recommends allowing physicians to access the information via medical records and allowing unsolicited alerts inside the medical record to highlight potential abuse or misuse situations.⁹

Currently, states’ PDMPs are funded individually by general state revenues, licensing board fees, state controlled substance registration fees, health insurers’ fees, and state and federal grants, but a national PDMP would require more extensive funding and might result in better consistency and efficiencies among states. The annual cost of a state PDMP is $125,000 to $1 million.¹⁰ A potential revenue source would be the National All Schedules Prescription Electronic Reporting program, which would require Congress to restore funding for the program. It may also be beneficial to consider funding from pharmaceutical companies that have a significant stake in appropriate use of controlled substances. Selling points for industry buy-in are that the NPDPMP may reduce prescription drug abuse and overuse and thereby decrease the likelihood of more restrictive regulations on controlled substances. In addition, complications from abuse, misuse, and overdose place a high cost burden on pharmaceutical companies, and the successful implementation of a national PDMP could potentially alleviate some of this strain.¹

The Bureau of Justice Assistance (BJA) is also focused on improving interoperability and has made this initiative a priority. The BJA has facilitated the creation of a national Prescription Drug Monitoring Information Exchange (PMIX) architecture. PMIX enables nationwide information sharing while allowing states to maintain their current technology. PMIX does not require adoption of a particular system. The primary concern, or barrier, for a national program involves standards, but PMIX standards are free, open, and community-based. Users of PMIX are allowed access to the nationally built standards at no cost. By keeping the standards open and free, PMIX preserves states’ choices to build, buy, or reuse software according to a commonly understood and accepted framework that will facilitate PDMP system interoperability. The second barrier for a national PDMPs common formatting of shared data. PMIX addresses this issue by using the National Information Exchange Model (NIEM). NIEM establishes common data vocabulary and format for interstate information sharing, thereby allowing states to continue managing their information as they currently do, while enabling them to share information across state boundaries. PMIX protects personally identifiable information and protected health information by requiring end-to-end data security and encryption of data. This form of protection ensures that information reaches its intended destination. The security technology used allows incorporation into numerous types of systems, including non-PDMPs and other systems that are consistent with Health Insurance Portability and Accountability Act standards.¹¹

**NABP PMP InterConnect® Platform**

In addition to the approaches described above, the National Association of Boards of Pharmacy launched InterConnect® in July 2011, a platform that facilitates the transfer of PDMP data across state lines to authorized users. It allows participating state PDMPs across the United States to be linked, providing a more effective means of combating drug diversion and drug abuse nationwide. Information about this program is provided as a supplement to this background paper (Appendix A).

**Role of Pharmacists in the National Prescription Drug Monitoring Program**

Pharmacists using prescription monitoring programs can assist in detecting and then intervening to decrease the abuse, misuse, and diversion of controlled substances state- and nationwide. They can also
help determine whether patients are being inadequately controlled for pain. Through identification of patients with inadequate or inappropriate pain control, they can refer the patient to an appropriate resource such as a pain management physician or abuse treatment center. However, pharmacists are limited in their ability to assist with drug diversion without systems that communicate effectively. Development of a user-friendly database providing the means for interstate communication would greatly increase pharmacists’ ability to assist in this situation. Such a database would apportion the responsibility of managing and addressing drug diversion, enable pharmacists to assist prescribers with medication-related decisions, and help them avoid facilitating diversion. Because prescription abuse continues to be a national concern for health care providers, creation of an NPDMP would allow for better transparency of patient history and better patient care assessments by the pharmacist concerning the dispensing and use of controlled substances.

**Benefits of a National Prescription Drug Monitoring Program**

Creation of a National Prescription Drug Monitoring Program would require states to agree on national standards to regulate their PDMPs to decrease abuse, misuse, and diversion of controlled substances. The use of a national PDMP may be sensible because the problem of abuse, misuse, and diversion exists nationwide; therefore, it should be monitored and regulated with a nationwide program. For patients who do not remain in one state and travel or move from state to state, a national program would allow for continued observation and maintenance of prescription use data. A national program may be created by unification of the current state-regulated PDMPs and therefore decrease the cost burden associated with building a NPDMP. Moreover, a national drug monitoring program could extend beyond communication of information about controlled substances and commonly abused medications; it could also communicate information concerning drug shortages and drug importation. In addition, creation of a national drug monitoring program would increase pharmacists’ ability to assist with pain management, drug diversion, abuse, and misuse and thereby increase their role and involvement in the health care system. Finally, a national program with scheduled reviews could highlight patients who are “doctor shopping,” prescribers who are unethically or illegally prescribing medications, and/or pharmacists who are unethically or illegally dispensing medications.

**Barriers to Implementation of a National Prescription Drug Monitoring Program**

**Funding**

Although the government has funded some of the state-level prescription monitoring programs and the BJA has supported the creation of the PMIX, there is currently no identified funding for a national prescription drug monitoring program. While states have the opportunity to take advantage of federal grants, these opportunities are limited. Private, nonfederal grants, such as those from the National Association of State Controlled Substances Authorities, a nonprofit educational program, provide smaller amounts of funding for educating stakeholders, but these funds would not be sufficient for a national program. The majority of states fund their PDMPs through revenue funds, using state taxes, sales taxes, income taxes, and property taxes. While taxes would be an option for funding a national program, doing so might not receive positive feedback and approval from the public. Other revenue sources for PDMPs include licensing boards, controlled substances registration fees, and other local fees, which would not be appropriate for funding a national prescription drug monitoring program. Due to current state-to-state techniques and strategies for funding PDMPs, finding a financially feasible funding source for a NPDMP may prove difficult. To develop a successful NPDMP, national funding must be identified to ensure an effective and beneficial national program.
Incorporation into the patient care process

For an NPDMP to be financially beneficial, all states’ health care practitioners must take advantage of the program and use it to its fullest potential. Currently, however, studies have shown that only five states require prescribers to access PDMPs and those requirements apply only to a specific set of physicians in limited situations. With a national PDMP, access to PDMPs by health care professionals must be mandated and incorporated into the patient care process in a seamless manner. Based on white papers published by the Department of Health and Human Services Office of the National Coordinator for Health Information Technology (ONC), successful incorporation of the PDMP system into physician workflow changes prescribing habits. The Indiana Direct Messaging white paper reports that sending unsolicited secure electronic messages improves prescriber awareness. These messages provide alerts to physicians on a weekly basis identifying persons of interest (POIs) based on a defined “at-risk” threshold. Other projects have incorporated PDMPs into e-prescribing to improve usability and access and have provided direct links inside electronic health records (EHRs) to connect physicians to PDMPs. Projects that combine incorporation into EHRs and identifying POIs increase physicians’ access to and use of PDMPs. However, the use of PDMPs must be incorporated into both physician and pharmacy workflow. A white paper by the ONC identified the possibility of using health IT to implement the current process for identifying patient insurance eligibility to access patients’ prescription use information. This step would eliminate pharmacists’ need to access the information manually and would result in a substantial increase in access to PDMP data.

In addition to the incorporation of patient information into the PDMP, pharmacists are concerned about their ability to manage the information obtained from the system when encountering a potential abuser and protecting their and their staff’s safety. In August 2014, the Joint Commission of Pharmacy Practitioners (JCPP) adopted a statement and principles on pharmacists’ role in addressing prescription medication misuse and abuse. Included within this document were the following points of discussion:

- **Prescription Drug Monitoring Programs:** Prescription drug monitoring programs are useful clinical tools to identify, prevent, and manage prescription medication abuse and misuse. JCPP supports pharmacist access to and use of prescription monitoring programs and dispensing systems that provide timely, bi-directional, and seamless data collection tools to help identify potential abuse and misuse of prescription medications and support access to current relevant medical information that will allow pharmacists to make appropriate decisions regarding medication therapy.

- **Patient referral mechanisms:** Recognizing that alcohol, chemical, and substance abuse is a disease, health care professionals and law enforcement agencies should have referral and treatment resources available to recommend to patients, family members, and caregivers, and individuals identified with a problem should be encouraged to seek treatment.

- **Need for provider protection:** Systems should be in place to allow providers to anonymously report (1) practitioners who may be abusing prescribing authority and (2) patients who are abusing or misusing prescription medications. Employers and public safety officials must respond to pharmacist and other health care professional calls for assistance, personal security, and legal protections to ensure professional and physical safety related to the reporting and management of situations in which abuse and misuse of prescription pain medications is suspected.

- **Education of providers:** Health care professionals and students who will ultimately prescribe and/or dispense prescription medications with the potential for abuse should have access to continuing education programs and institutes that address the various aspects of addiction,
substance abuse, treatment, and recovery, including discussion of prevention, appropriate and safe use, proper storage and proper disposal of medications, patient education, and other related topics.

- **Cost of abuse-prevention systems:** To ensure the sustainability of prescription medication abuse and misuse monitoring and reporting systems, adequate financial and human resources must be available to providers and government agencies.

**Conclusion**

Because prescription abuse, misuse, and diversion is a nationwide issue, it is vital that states work together to share PDMP data and provide a national solution to prescription abuse issues. During the development of solutions to PDMP data access and information exchange, it is important to define standards for monitored drugs, identify persons who will have access, determine funding options, and make other determinations to ensure that a national prescription drug monitoring program meets the needs of all states and is successful in deterring abuse and identifying persons who can benefit from abuse treatment centers.

Pharmacists are well-positioned to provide valuable information for PDMPs and also to identify and recommend patients to abuse treatment centers. As medication experts and dispensers of prescription medications, pharmacists can provide counseling and support to assist with drug abuse and misuse awareness. As standardized methods for incorporating prescription monitoring data become available, it is important for pharmacists to continue to play an active role in prescription use monitoring. Providers should be supplied with proper education on the way in which to incorporate PDMPs into the workflow process, and they should be given additional resources to support their use of the PDMP data.
References


Related APhA Policies

1989 Multiple Copy, Prescription Order Programs
1. APhA opposes federally mandated, multiple copy, prescription order programs.
2. APhA supports the right of individual states to develop programs to prevent drug abuse and drug diversion.


2002 National Framework for Practice Regulation
1. APhA supports state-based systems to regulate pharmacy and pharmacist practice.
2. APhA encourages states to provide pharmacy boards with the following: (a) adequate resources; (b) independent authority, including autonomy from other agencies; and (c) assistance in meeting their mission to protect the public health and safety of consumers.
3. APhA supports efforts of state boards of pharmacy to adopt uniform standards and definitions of pharmacy and pharmacist practice.
4. APhA encourages state boards of pharmacy to recognize and facilitate innovations in pharmacy and pharmacist practice.

NABP PMP InterConnect

Developed by the National Association of Boards of Pharmacy® (NABP®), the NABP PMP InterConnect® was created by the Association to protect public health. Founded in 1904, NABP is the impartial non-profit organization that supports the state boards of pharmacy in protecting public health. NABP aims to ensure the public’s health and safety through its many programs, which range from pharmacist competency assessment programs to pharmacist license transfer to accreditation programs for Internet pharmacies and wholesale distributors. For more details on NABP and how it assists the state boards of pharmacy through its programs, please see page 6.

Overview of the NABP PMP InterConnect

Background on NABP Involvement
Recognizing NABP’s background in assisting boards of pharmacy and other regulators in protecting the public health, NABP was approached by several prescription monitoring program (PMP) administrators in the fall of 2010 about building a low cost, easy to implement, and highly enhanced solution for interstate data sharing that could be implemented in under a year.

NABP PMP InterConnect Design and Intent
At its core, the NABP InterConnect was designed to facilitate interoperability and interstate data sharing between PMPs.

Under the direction of a group of nationally representative PMP administrators, development of the NABP InterConnect began in January 2011. The administrators made several specific requests of the NABP InterConnect design and function:

• Utilize the messaging specification that was an outgrowth of the Bureau of Justice Assistance (BJA) efforts with Prescription Monitoring Information Exchange (PMIX), which would allow for seamless communication of program information between PMP programs.
• Encrypt the requests and responses from PMP to PMP using highly secure, widely deployed encryption technologies, ensuring no Protected Health Information or Personally Identifiable Information is exposed to any entity other than the disclosing and requesting PMPs.

• The NABP InterConnect should be:
  • Built using open standards
  • Cost effective
  • Easy to implement
  • Low maintenance

• The NABP InterConnect should include a rules engine that would allow PMPs to maintain complete control and autonomy over PMP data exchanges with other states participating in NABP InterConnect.

This group of PMP administrators also asked for a simplified process of participating in the InterConnect without having to draft and sign complex memorandums of understanding (MOUs) with every other participating state to ensure that each state’s access rules would be respected and enforced. Through the MOU, each state agrees to participate in the program and investigate reports of unauthorized disclosures of any information obtained by one of its users from another state, and NABP takes on the responsibility for ensuring that the state’s access rules are enforced via the rules engine. This rules engine, coupled with the single MOU, provides a highly effective and efficient pathway for interstate data sharing.

The NABP InterConnect, which launched for nationwide use on July 27, 2011, has effectively met and in many cases exceeded each of the criteria and expectations set by the PMP administrators.
Governance of NABP PMP InterConnect
The NABP InterConnect is governed by a Steering Committee, comprised exclusively of representatives of the PMPs that are participating in the system. The Steering Committee serves as the governing and advisory body as it relates to the administration and function of the NABP InterConnect. No outside organization, public or private, has a vote about, influence over, or the ability to direct the administration and function of the NABP InterConnect. Outside parties and subject matter experts may, however, be asked to provide information for the Steering Committee’s consideration from time to time.

Steering Committee Structure/Function
Currently, there are 26 members on the Steering Committee: Arizona, Arkansas, Colorado, Connecticut, Delaware, Idaho, Illinois, Indiana, Kansas, Kentucky, Louisiana, Michigan, Minnesota, Mississippi, Nevada, New Jersey, New Mexico, North Dakota, Ohio, South Carolina, South Dakota, Tennessee, Utah, Virginia, West Virginia, and Wisconsin. Additional members will join as they agree to participate and execute the MOU with NABP.

At the Steering Committee meeting held on August 30-31, 2011, the Steering Committee unanimously adopted “Operating Principals” that will govern the activities and interactions of the committee. Within those operating principals, the committee dictated the following:

• There shall be a chairperson of the committee, to be appointed annually by the NABP president.
• Voting (active) members of the committee shall be composed of those states that have executed an MOU with NABP for participation in NABP InterConnect.
• The committee, through the chairperson, may invite other states to participate in the Steering Committee as guests. The committee, through the chairperson, may invite other guests to participate, attend, or observe the Steering Committee meetings. Such individuals may include the technology solution provider for NABP InterConnect; NABP software vendors; relevant federal or state agencies or national associations dedicated to patient safety, safe drug use, and deterring diversion of controlled substances; or any other person as determined by the discretion of the chairperson.
• The chairperson will appoint a dispute resolution committee to mediate any disputes between states participating in the NABP PMP InterConnect. The dispute resolution committee shall be composed of three members from states not involved in the dispute, and the committee will be representative of the different types of agencies, eg, law enforcement, health agency, or board of pharmacy, where possible.
• All formal recommendations of the Steering Committee that comprise a significant policy or technical change to the NABP InterConnect, or would otherwise have a fiscal impact on NABP must be ratified by the NABP Executive Committee.

• This arrangement is consistent with how all NABP committees and task forces are managed and administered. Further, the NABP executive director/secretary and Executive Committee are responsible for ensuring that all actions of such committees are congruent with the NABP Constitution and Bylaws of NABP, are consistent with the actions of other committees, adhere to state and federal laws and regulations applicable to not-for-profit associations, and adhere to the principals set forth by NABP regarding advancing public health initiatives.

The Steering Committee shall meet, either in person, or via teleconference, at least once annually, and additionally at the discretion of the chairperson, or as requested by a simple majority of the members of the Steering Committee.

Adoption of NABP PMP InterConnect
As of February 2014, 26 states have executed an MOU with NABP to participate in the NABP InterConnect: Arizona, Arkansas, Colorado, Connecticut, Delaware, Idaho, Illinois, Indiana, Kansas, Kentucky, Louisiana, Michigan, Minnesota, Mississippi, New Jersey, New Mexico, Nevada, North Dakota, Ohio, South Carolina, South Dakota, Tennessee, Utah, Virginia, West Virginia, and Wisconsin.
The following PMPs intend to sign on to use NABP InterConnect and have MOUs under review: Montana, North Carolina, Rhode Island, and Wyoming.

It is anticipated that approximately 30 states will be sharing data or in an MOU to share data using NABP InterConnect in 2014.

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### NABP PMP InterConnect Development and Implementation Time Line

<table>
<thead>
<tr>
<th>January 2011</th>
<th>NABP and Appriss, Inc, begin development of NABP InterConnect after consulting with PMP administrators who helped set the business requirements and functional specification for the NABP InterConnect.</th>
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</thead>
<tbody>
<tr>
<td>March 2011</td>
<td>NABP holds an initial Steering Committee meeting of PMP administrators that also included outside participants, such as the BJA, Drug Enforcement Administration, the Alliance of States with Prescription Monitoring Programs, the IJIS Institute, and members of industry.</td>
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<tr>
<td>May 2011</td>
<td>Development of NABP InterConnect is completed and NABP begins to work with state PMP software vendors to develop the appropriate interface for NABP InterConnect.</td>
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<tr>
<td>July 2011</td>
<td>NABP InterConnect launches for nationwide use.</td>
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</tbody>
</table>
| August 2011 | • Users of Indiana’s INSPECT program and the Ohio Automated Rx Reporting System (OARRS) program perform the first successful state-to-state data exchange in a live environment.  
• Ohio authorizes statewide access for prescriber and pharmacist users of the OARRS program for Indiana data using NABP InterConnect.  
• NABP, Appriss, and representatives from the Mississippi and Ohio PMPs participate in PMIX architecture meetings sponsored by the Alliance of States with Prescription Monitoring Programs. The purpose of the meeting was to develop a PMIX architecture that would provide a framework for sharing data between multiple interstate sharing “hubs.”  
• Virginia PMP goes live.  
• Steering Committee meeting held to:  
  • Finalize governance structure;  
  • Discuss bringing additional PMPs on board in 2011;  
  • Solicit guidance and feedback about administrative matters;  
  • Approve certain functionality enhancements recommended for NABP InterConnect; and  
  • Strategize about ways to make PMP program information more useful in medical decision-making involving medication therapy.  
The BJA clarifies guidance allowing use of Harold Rogers PDMP grant funds by InterConnect participants. NABP commits to use of PMIX architecture.  
On an ongoing basis, NABP continues discussions with BJA and the Office of National Drug Control Policy. |
| January 2012| PMPs in Connecticut and Michigan go live. |
| March 2012  | • PMPs in North Dakota and South Carolina go live.  
• Steering Committee convenes to discuss, among other items:  
  • Development of a system for pharmacy PMP data submission;  
  • PMP software search methodologies;  
  • NARXCHECK application;  
  • PMIX Architecture; and  
  • Enhancing Access to PDMPs project and the related pilots. |
| August 2012 | • New Mexico PMP goes live.  
• Steering Committee convenes to discuss and make recommendations related to the operation of the NABP InterConnect, including dispute resolution procedures, entry and exit requirements for participation, data security, recommendations for best practices for state PMPs to facilitate interstate sharing, and other policy matters identified. |
| February 2013| Kentucky PMP goes live. |
| March 2013  | PMPs in Illinois, Louisiana, and South Dakota go live. |
| April 2013  | Steering Committee convenes via conference call to discuss current status and direction of integration projects. The Committee unanimously agrees that there is to be no secondary use (such as collecting, copying, or selling) of PMP data by any party. |
| May 2013    | Colorado PMP goes live. |
| August 2013 | Tennessee goes live. |
| October 2013| Delaware, Mississippi, and Wisconsin go live. |
| November 2013| Arkansas and Minnesota go live. |
| February 2014| Nevada goes live. |
| March 2014  | Idaho and West Virginia go live. |
| May 2014    | New Jersey goes live. |
| June 2014   | Utah goes live. |
Cost/Funding

**Funding for Implementation and Participation**

NABP is paying for all costs associated with the development and implementation of the NABP InterConnect, as well as five years of annual participation fees for each participating PMP using, exclusively, its own revenues derived from program resources described previously in this document and its reserves. NABP has the financial resources to make this commitment without the need to use any outside funding sources.

NABP received an unrestricted educational grant from Purdue Pharma L.P. in the amount of one million dollars. Although not restricted by Purdue in any way, the NABP Foundation® has determined that this grant will not be used for any costs associated with the development, implementation, or ongoing operational costs of the NABP InterConnect. This grant will be administered through the NABP Foundation which is a separate non-profit organization. Funds held by the NABP Foundation are used for special educational or public safety projects that are separate from and outside NABP’s core programs and activities. Additionally, no grantor has any access to, influence, decision-making authority, or consideration relative to the NABP InterConnect and its administration and functions. As described above, the governance and administrative guidance for the NABP InterConnect is in the hands of the Steering Committee.

The NABP Foundation is making the Purdue unrestricted grant funds available to any state that needs and requests financial assistance to modify its PMP software to participate in the NABP InterConnect. Again, no NABP Foundation or other grant funds are being used directly for the NABP PMP InterConnect. To this end, as of July 2013, the NABP Foundation has paid out $461,660 to state PMPs or their software vendors for purposes of connecting individual states via the NABP InterConnect.

<table>
<thead>
<tr>
<th>Date</th>
<th>Vendor</th>
<th>State PMP</th>
<th>Grant Disbursements</th>
<th>Applied To</th>
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<td>6/13/2011</td>
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**Total Grant Disbursements: $554,195**
Funding for Enhancements
NABP is currently exploring several different types of pilots and expanded offerings for PMPs that would serve as significant enhancements to the NABP InterConnect and would benefit each participating PMP. Several participating PMPs have already engaged with health information exchanges, major chain pharmacies, and pharmacy software systems that are interested in leveraging the “network” that will be created with NABP InterConnect. Similarly, NABP is finalizing the establishment of a PMP Clearinghouse that would serve as a single point of submission for entities that have to report to multiple PMPs.

As the Clearinghouse and other pilots evolve towards operational systems, NABP plans to reinvest any net revenues from the systems back into the PMPs for future enhancements and functionality.

Beyond the NABP PMP InterConnect
As advised by the Steering Committee at its August 30, 2011 meeting, NABP continues to explore uses of NABP InterConnect, beyond interstate data sharing. Specifically, NABP has established or explored the establishment of the following:
- PMP Clearinghouse for data submission;
- Integration of PMP data into Health Systems Pharmacy Software systems and Emergency Room Software systems in order to integrate queries of the PMP programs into the normal workflow and enhance patient care; and
- To ensure greater continuity of patient care, NABP has also worked with state-level stakeholders and health professionals to explore integration of all prescription data into PMP, thus giving health professionals a much clearer and greater picture of the patient’s drug therapy.

Background on NABP
Organization/Mission
Founded in 1904, the National Association of Boards of Pharmacy is the impartial professional organization that supports the state boards of pharmacy in protecting public health. NABP aims to ensure the public’s health and safety through its pharmacist license transfer and pharmacist competency assessment programs, as well as through its Verified Internet Pharmacy Practice Sites℠ (VIPPS℠), Vet-VIPPS®, Verified-Accredited Wholesale Distributors® (VAWD®), and durable medical equipment, prosthetics, orthotics, and supplies (DMEPOS) accreditation programs. NABP’s member boards of pharmacy are grouped into eight districts that include all 50 United States, the District of Columbia, Guam, Puerto Rico, the Virgin Islands, Australia, eight Canadian provinces, and New Zealand. The Association is governed by its Executive Committee, whose officers and members are elected during the Association’s Annual Meeting.

NABP is a 501(c)(3) charitable and educational organization that has over 100 years of experience in providing regulatory support and assistance to its member boards, Food and Drug Administration, the Department of Justice, and other state and federal regulatory and patient safety agencies and organizations, all in the interest of protecting the public’s health, safety, and welfare.

The NABP Foundation is a separate 501(c)(3) charitable organization founded to educate the public about important health issues related to the practice of pharmacy and use of prescription medications. Its most important programs include the State Newsletter Program, the AWARx®E® Consumer Protection Program, as well as the NABPLAW® Online service, providing quick and targeted access to pharmacy laws in all 50 states, plus DC, Guam, Puerto Rico, and the US Virgin Islands. In addition, the NABP Foundation provides development assistance to NABP for new programs.

How the Organization Supports Itself
NABP offers a wide array of products and services that our member boards of pharmacy utilize as they work to protect the public health through the regulation of the practice of pharmacy and the prescription drug supply chain.

Competency Assessment Programs
NABP’s primary source of revenue comes from its competency assessment programs, such as the North American Pharmacist Licensure Examination® (NAPLEX®), the Multistate Pharmacy Jurisprudence Examination® (MPJE®), the Foreign Pharmacy Graduate Equivalency Examination® (FPGEE®), and the Pharmacy Curriculum Outcomes Assessment® (PCOA®). Such competency
assessment programs comprised 49% of 2012 gross revenue. Fees for the assessments offered by NABP are paid by the candidates for licensure and certification and not the states.

Accreditation Programs
NABP’s accreditation programs include the DMEPOS accreditation program, (for which NABP is a Centers for Medicare and Medicaid Services-deemed accreditation entity), the VAWD program, the VIPPS program, and the Vet-VIPPS program. NABP’s accreditation programs comprised 28% of 2012 gross revenue. Fees for accreditation are borne by the pharmacies and wholesale distributors and not the states.

License Transfer
NABP also facilitates a license transfer program to assist its member states in processing pharmacist licensure transfer requests from state to state. This program accounted for 10% of 2012 gross revenue. In addition, more recently NABP began facilitating license transfer process for pharmacies through the Verified Pharmacy Program™ (VPP™), an inspection service and information sharing network for the state boards of pharmacy.

As noted above, the fees associated with these programs are paid by applicants for licensure and registration and are part of state licensing requirements. State boards of pharmacy are responsible for a member fee of $250 per year, which has remained unchanged since 1985.

The long-term stability of these various programs, coupled with careful financial planning, has contributed to NABP’s financial strength. NABP can continue implementing new initiatives, such as the NABP PMP InterConnect, that will fulfill its mission of assisting its member boards and other regulators in protecting the public health.