Iowa Board of Pharmacy

ANDREW FUNK, PHARM.D.
EXECUTIVE DIRECTOR

January 25, 2019

Governor Kim Reynolds
Members of the 88th General Assembly
Iowa State Capitol
Des Moines, IA 50319

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Honorable Governor and Members:

Pursuant to the requirements of section 124.554, subsection 2, of the Iowa Uniform Controlled Substances Act, the Board of Pharmacy (Board) submits the following information on the Prescription Monitoring Program.

Introduction

The Iowa Prescription Monitoring Program (PMP) became fully operational on March 25, 2009, and provides authorized prescribers and pharmacists with information regarding their patients' use of controlled substances and is used as a tool in determining appropriate prescribing and treatment of patients without fear of contributing to a patient's abuse of or dependence on addictive drugs or diversion of those drugs to illicit use. Iowa licensed pharmacies, both in-state and nonresident pharmacies, are required to report to the Iowa PMP all Schedule II, III and IV controlled substances dispensed to ambulatory patients.

The Board administers the Iowa PMP with the assistance and guidance of an advisory council consisting of three physicians, three pharmacists, and one non-physician prescriber appointed by the governor. The advisory council meets as needed to review the progress of the Iowa PMP; the cost of maintaining the Iowa PMP and the benefits of the program; possible enhancements to the program; and information, comments and suggestion received from program users and the public.

The Board and the PMP Advisory Council also review statistics regarding the use of the Iowa PMP by prescribers, pharmacists and law enforcement or regulatory agents; the number of prescriptions filled each year; the top drugs dispensed in Iowa each year; and indices of excessive pharmacy-shopping or doctor-shopping for controlled substances. Assessment of PMP data collected for the timeframe of 1/1/18 through 12/31/18 is included in this report. Historical data since 2012 is also provided in table format as an attachment.

Operations

From March 25, 2009, until April 3, 2018, the Iowa PMP ran on a software platform, referred to as Otech, developed by Optimum Technologies. The cost of initial implementation of the Iowa PMP was paid by federal grant and amounted to $411,250. From 2009 until 2018, the annual cost for the receipt and delivery of pharmacy data and software maintenance amounted to approximately $112,000 – even after Optimum Technologies was acquired by Appriss Health on April 24, 2015. The Otech platform did not include functionality that enabled Iowa PMP administrators to run many basic statistical reports. That, as a major downfall, along with the aging, server-based software platform that was not able to accommodate any sizable integration of the PMP with Electronic Health Record (EHR) systems propelled the Board to initiate the Request for Proposal (RFP) process.

On June 2, 2017, the Board, in conjunction with the Office of the Chief Information Officer (OCIO) submitted the initial draft of the Project Charter for a new contract for the PMP application. The RFP for the project was issued by the state on August 20, 2017, with proposals due on November 13, 2017. On November 30, 2017, the Notice of Intent to Award RFP 0918005004 for the Iowa Board of Pharmacy Prescription Monitoring Program was given to Appriss Health for their PMP AWARxE™ solution. The contract was officially executed in January 2018. Cost for the AWARxE™ solution is $100,000 per year for the first 2 years of the contract. For contract years 3, 4, 5 and 6, the annual fees will be $102,000, $104,040, $106,120 and $108,250, respectively. Annual costs are paid from license fees retained by the Board for the support of Board programs and activities. No additional user fees or surcharges have been imposed to pay for the activities or support of the Iowa PMP since its inception.

NarxCare™ was selected to be an add-on service to the AWARxE™ software platform. NarxCare™ aids practitioners with clinical decision making to help prevent or manage substance use disorder. It aggregates and analyzes the data collected by the PMP and generates advanced insights and complex risk scores. This can assist prescribers and dispensers provide better patient safety and patient outcomes. The annual fee for NarxCare™ is $186,000 per year, which was paid for in 2018 using funds from a Bureau of Justice Assistance Comprehensive Opioid Abuse Prevention (COAP) grant awarded jointly to the Iowa Department of Public Health and the Iowa Board of Pharmacy. The grant extends until September 30, 2019, and it is the intent of the Board to use year 2 grant funds to pay for NarxCare in 2019.

On March, 28, 2018, data from the former Otech platform was successfully migrated into AWARxE™. Iowa's upgraded PMP system, AWARxE™, became operational on April 4, 2018 and has been well-received.

HF 2377/ "The Opioid Bill"

The enactment of HF 2377 into law on July 1, 2018, conferred new requirements on Iowa Controlled Substance Applicant (CSA) registrants and the PMP. One requirement of note is Iowa Code 124.551A that mandates a prescribing practitioner "shall register for the program at the same time the prescribing practitioner applies to the board to register or renews registration to prescriber controlled substances as required by the board." From January through June of 2018, the percent of CSA registrants that had a PMP user account stayed fairly stable, in the 45-50 percent range. However, following July 1, 2018, the figure increased to approximately 85 percent by years' end (Figure 1):

Figure 1: Percent of CSA Registrants with a PMP User Account

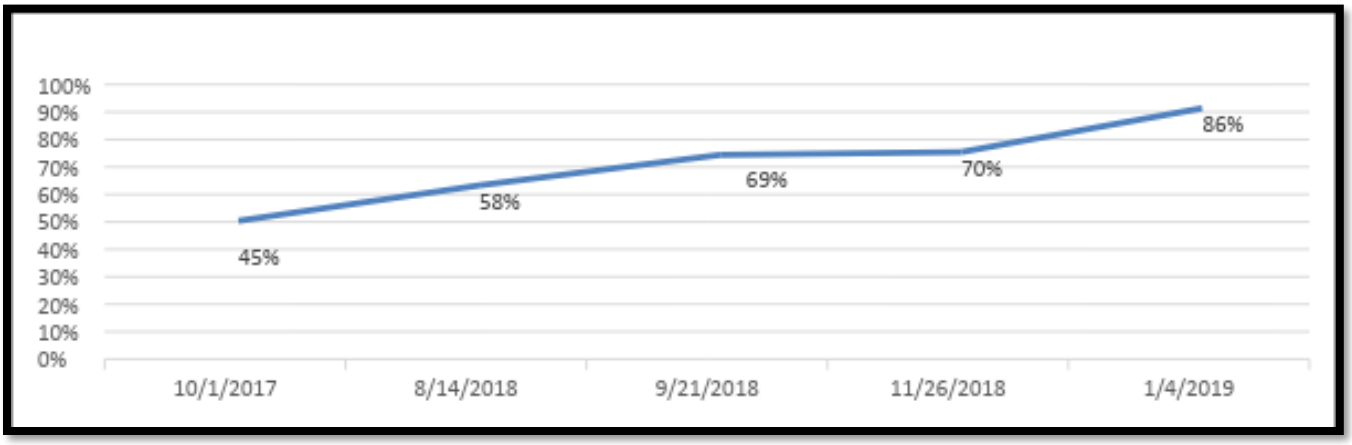
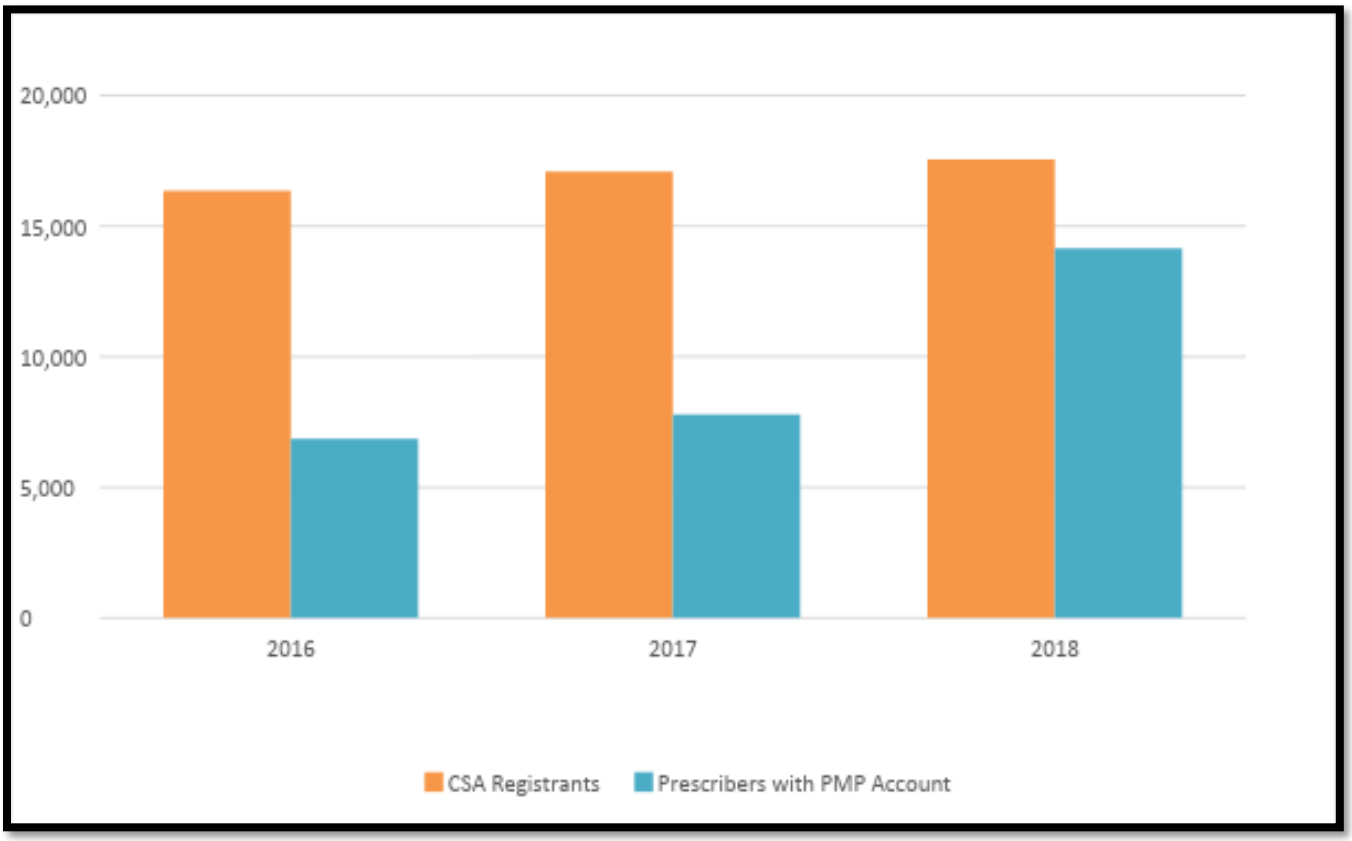


Figure 2: CSA Registrant Holders vs. PMP Prescriber Account Holders



PMP Data

From March 25, 2009, until May 15, 2018, in-state and nonresident Iowa licensed pharmacies were required to submit data on reportable prescriptions to the PMP no less than weekly. In order to securely exchange prescription data files between the server and Optimum Technologies/Appriss for ultimate upload to the Otech platform, a process time of anywhere from 3-5 days was common. This, at times, led to some data not being available for users to see in the PMP until 10-12 days after the prescription was filled by the pharmacy. In an effort to provide users with more timely data, the Board amended Iowa Administrative Code 657-37.3(3) to require pharmacies to submit prescription data no later than the next business day following dispensing.

Prescription and PMP user data referenced in this report was collected by the PMP between January 1, 2018, and December 31, 2018. During the 2018 calendar year, not only did the number of pharmacist and prescriber user accounts increase, but the number of patient queries from both categories also increased. These increases are in large part due to the rise in the number of integrations between the PMP and Electronic Health Records (EHR) and Pharmacy Dispensing Systems (PDS). To date, all integrations have been enabled using an Application Protocol Interface (API) known as Gateway. Queries that originated in the Otech (January 1, 2018 through April 3, 2018) and AWARxE web portals (April 4, 2018 through December 31, 2018) are combined for 2018 and queries that originated through Gateway and PMP Interconnect are shown separately (Figures 3 and 4):

Figure 3: Pharmacist PMP Queries (includes delegate requests)

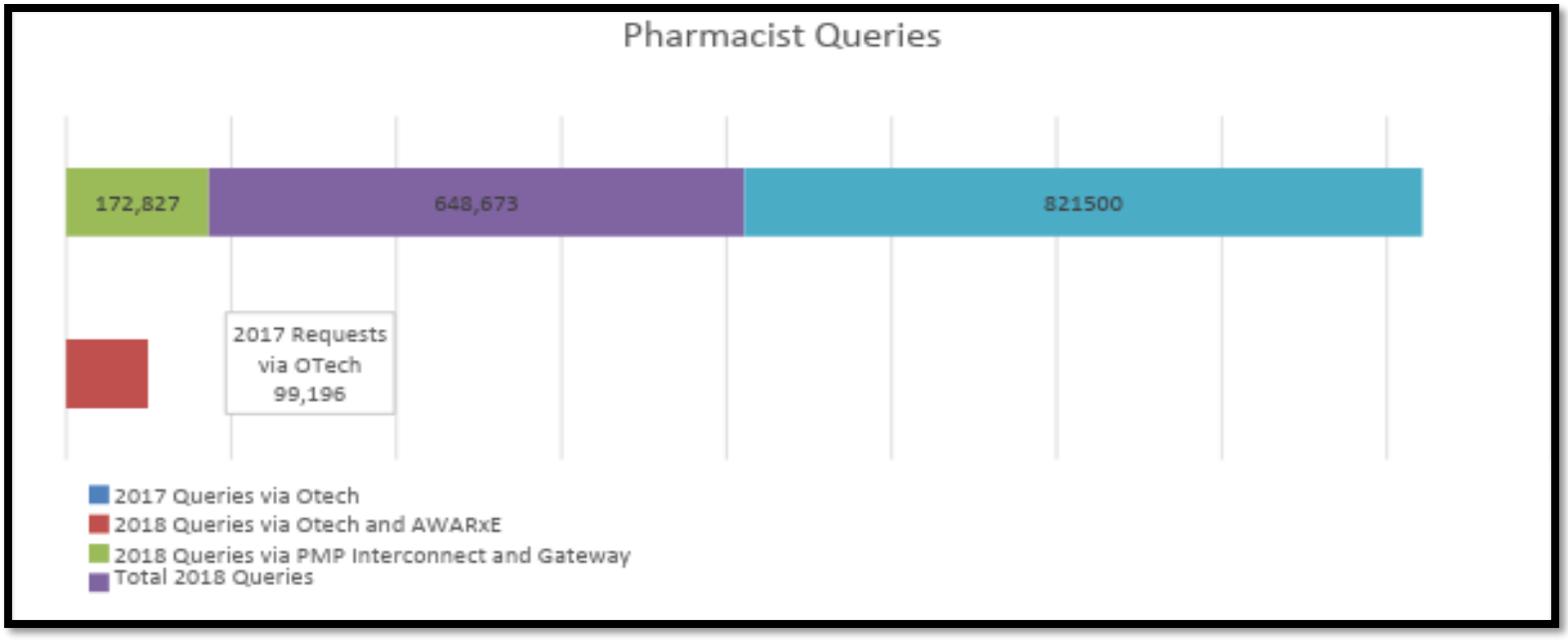


Figure 4: Prescriber PMP Queries (includes delegate requests)

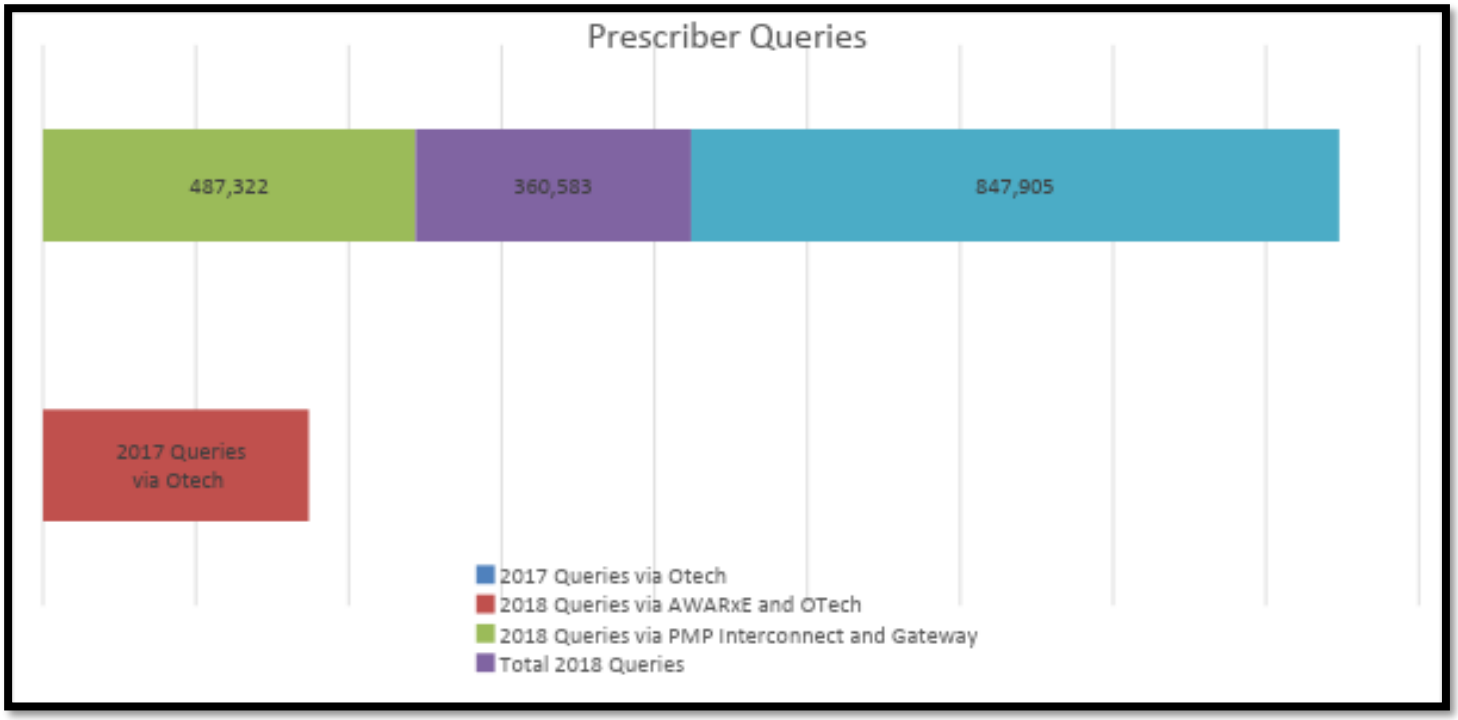
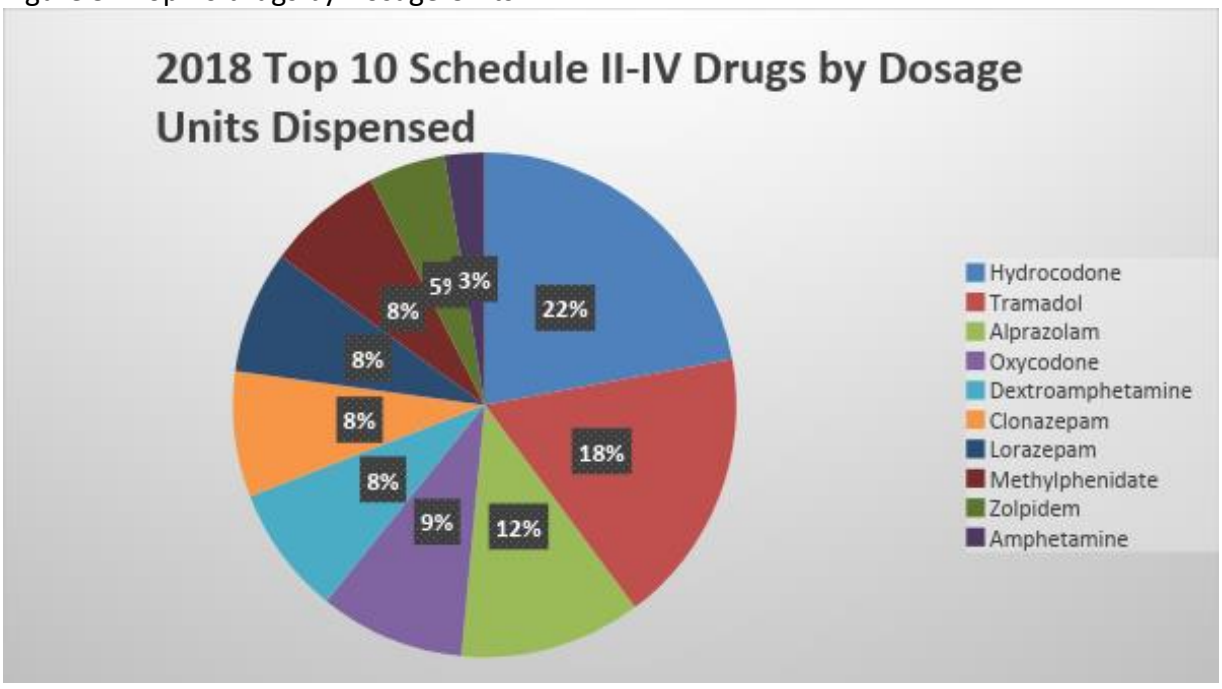


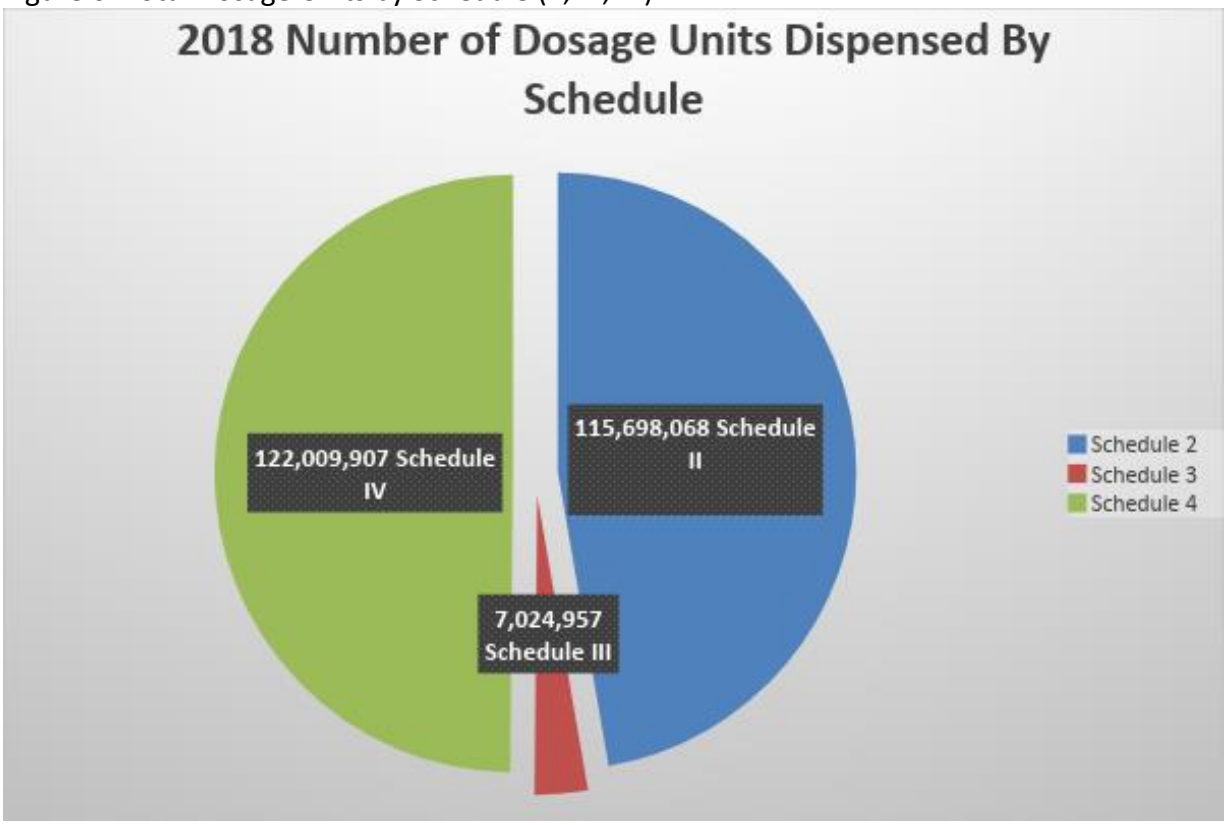
Figure 5 displays the top 10 Schedule II-IV drugs by number of dosage units. While the drugs that fill those top 10 spots are the same in 2017, the ranking of each remained generally consistent. Of note, however, the percentage of oxycodone dosage units dispensed increased from 5 percent to 9 percent.

Figure 5: Top 10 drugs by Dosage Units



Out of the 3 drug schedules that comprise data of prescriptions reported to the PMP in 2018, the number of dosage units of Schedule IV drugs narrowly surpassed that of Schedule II drugs. Schedule III drugs came in a distant third with regard to dosage units dispensed (Figure 6):

Figure 6: Total Dosage Units by Schedule (II, III, IV)



From 2017 until 2018, the total number of Schedule II-IV prescriptions dispensed decreased again, this year by 1.4%, and was the lowest on record since 2013 (Figure 7). The same held true with total number of dosage units dispensed decreasing by 5.9%(Figure 8).

Figure 7: Total Number C2-4 Prescriptions

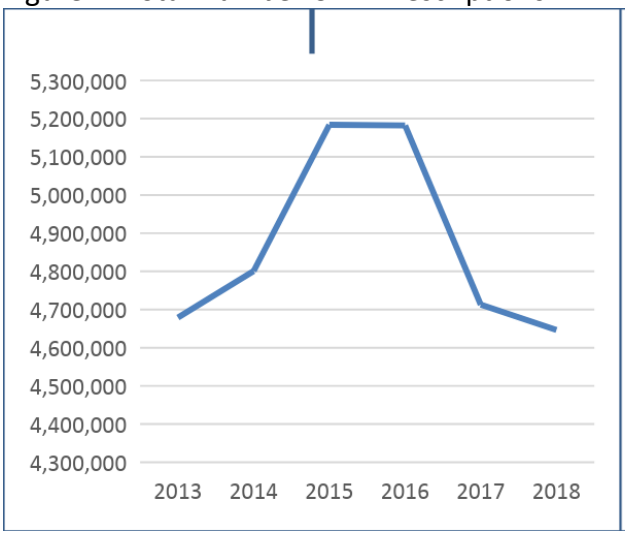
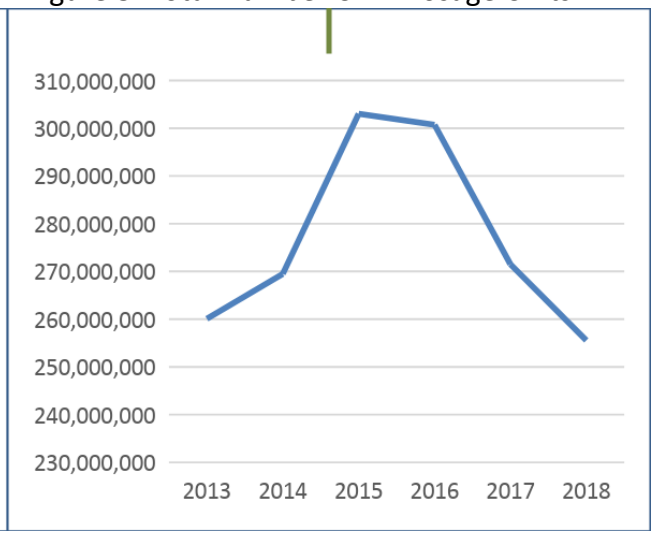


Figure 8: Total Number C2-4 Dosage Units



There were subsets of 2018 PMP data provided to the Board by software vendor Appriss that showed dramatic increases since 2017. Specifically, the numbers of patients having Multiple Provider Episodes (MPEs) – such as visiting 5, 10, or 15 or more prescribers or pharmacies for receipt of controlled substances - had increased exorbitantly. This became a major cause for concern and Appriss' Business Intelligence team assisted in finding an explanation. It was determined that the unsophisticated patient matching logic on the former Otech platform did not allow for accurate results when queries of MPEs were run. For example, a patient named Michael Jones with a DOB of 1-1-21 who had two controlled substances prescriptions, each from a unique prescriber, filled at each of three different pharmacies in 2017. The first pharmacy entered his name as Michael Jones, the second pharmacy entered his name using his nickname "Mikey" Jones, and the third pharmacy entered his name as Mike Jones. The Otech system did not consolidate those three variations of Michael Jones into one person, despite each having the same DOB. Therefore, in 2017 and every year prior, that patient would not have fit the criteria of having filled prescriptions by five of more prescribers. Instead, Michael Jones would have been counted as three different people who each only had prescriptions from two different prescribers. In reality, Mr. Jones had controlled substance prescriptions written by 6 different prescribers. The current AWARxE platform has sophisticated patient matching and consolidation logic to prevent such skewed results from being reported. Figures 9-17 display the number of patients with MPEs as had been erroneously calculated by the Otech system in 2017. Alongside those figures are retrospective 2017 calculations generated from the AWARxE platform using data that had been imported from the Otech system, as well as 2018 calculations via AWARxE.

Figure 9:

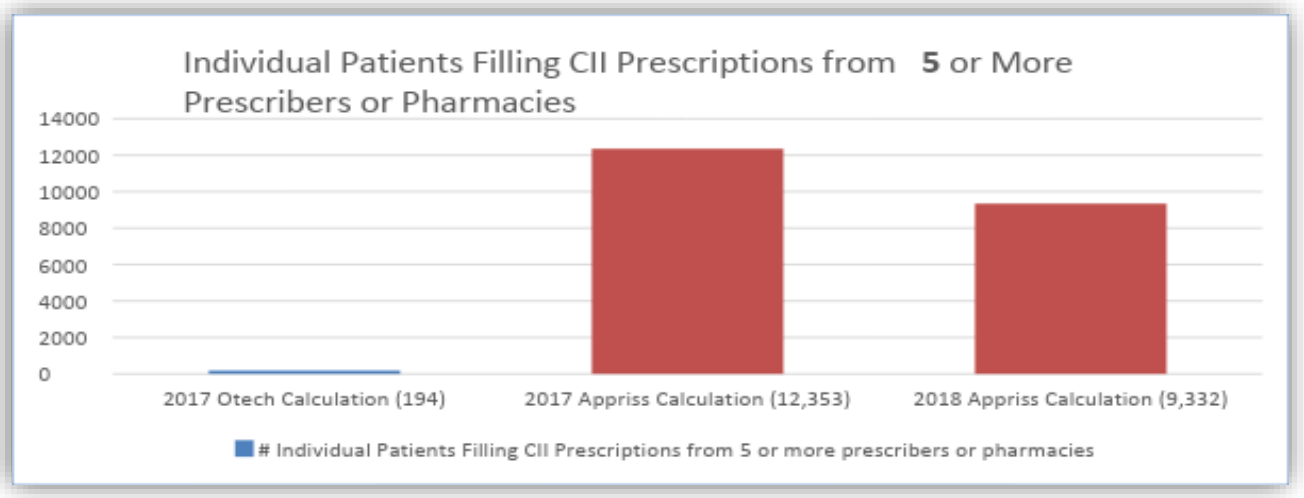


Figure 10:

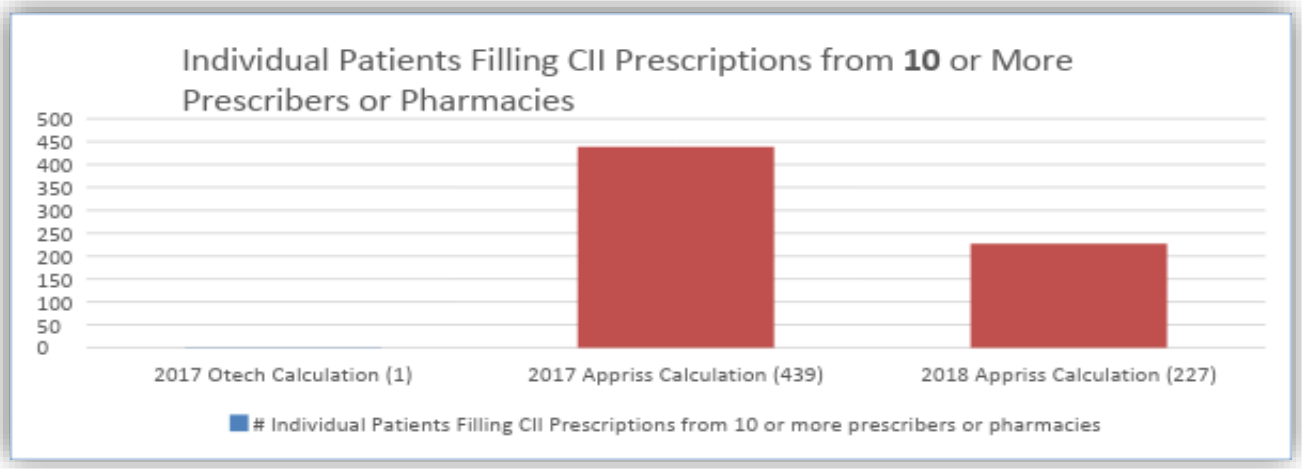


Figure 11:

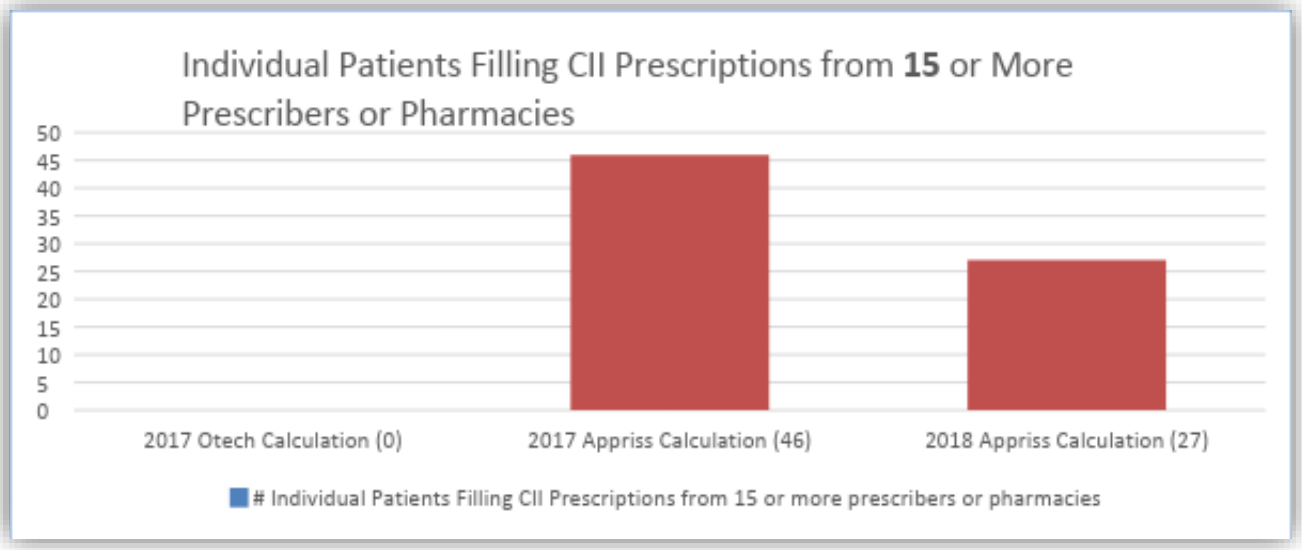


Figure 12:

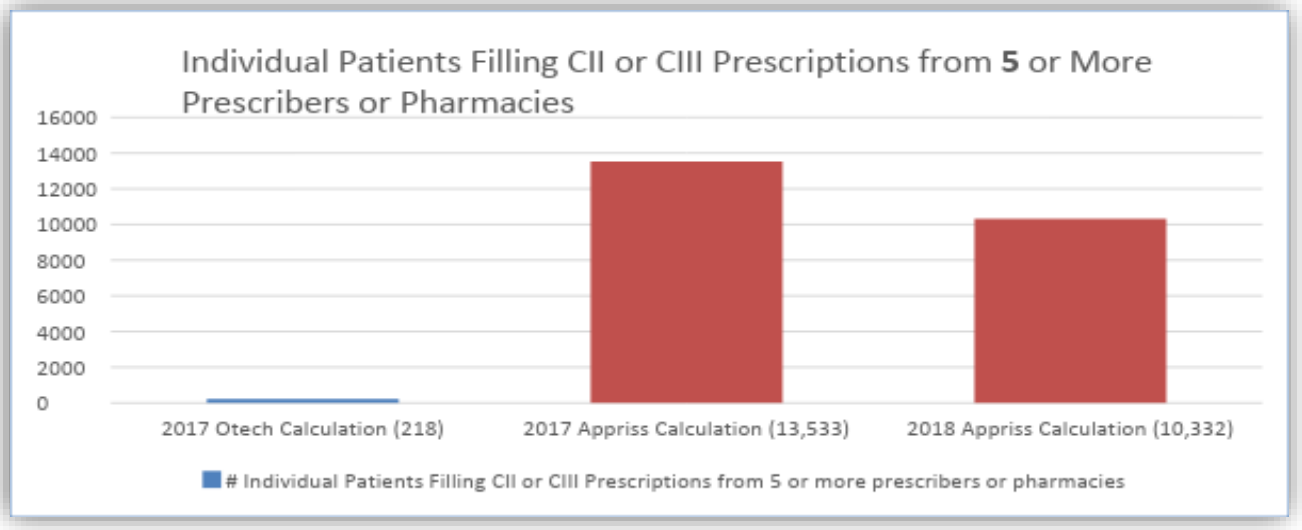


Figure 13:

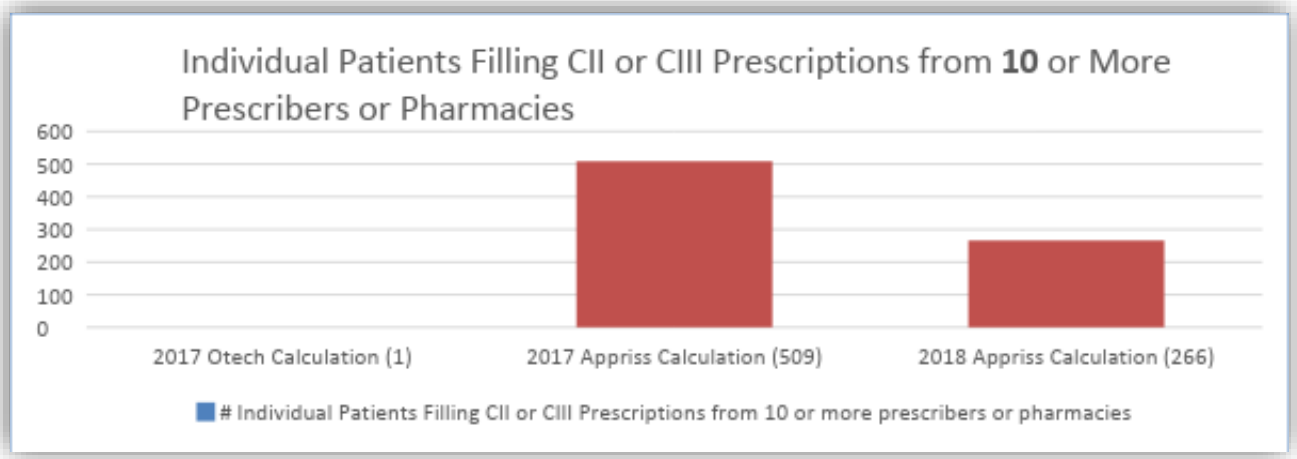


Figure 14:

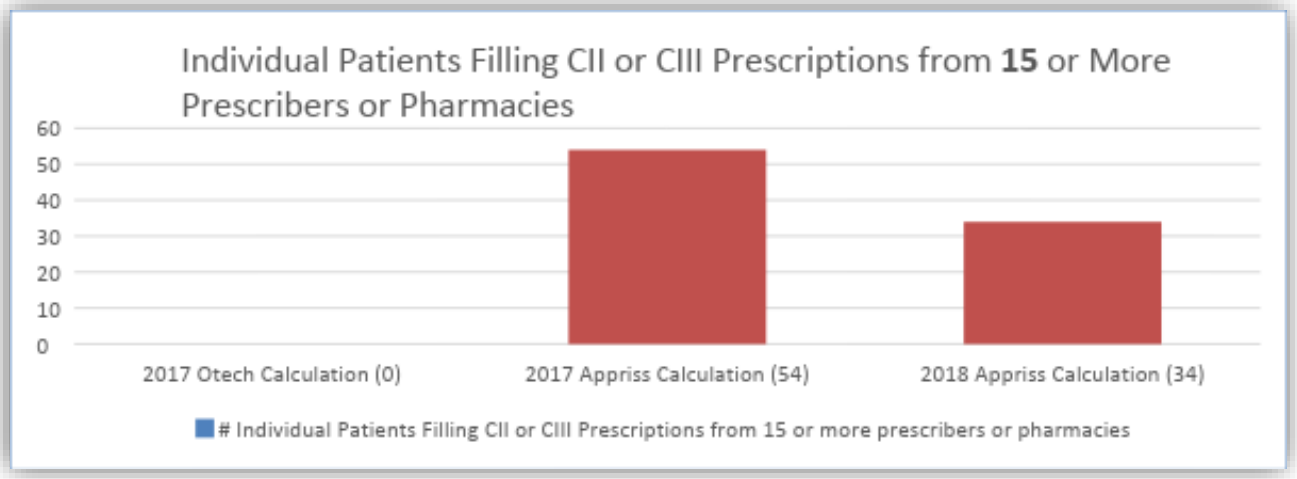


Figure 15:

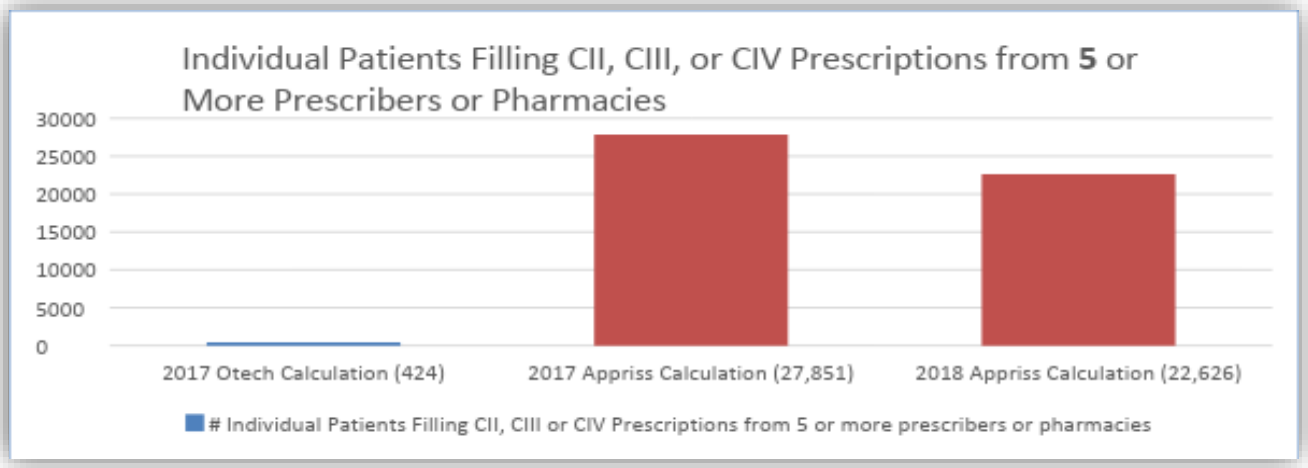


Figure 16:

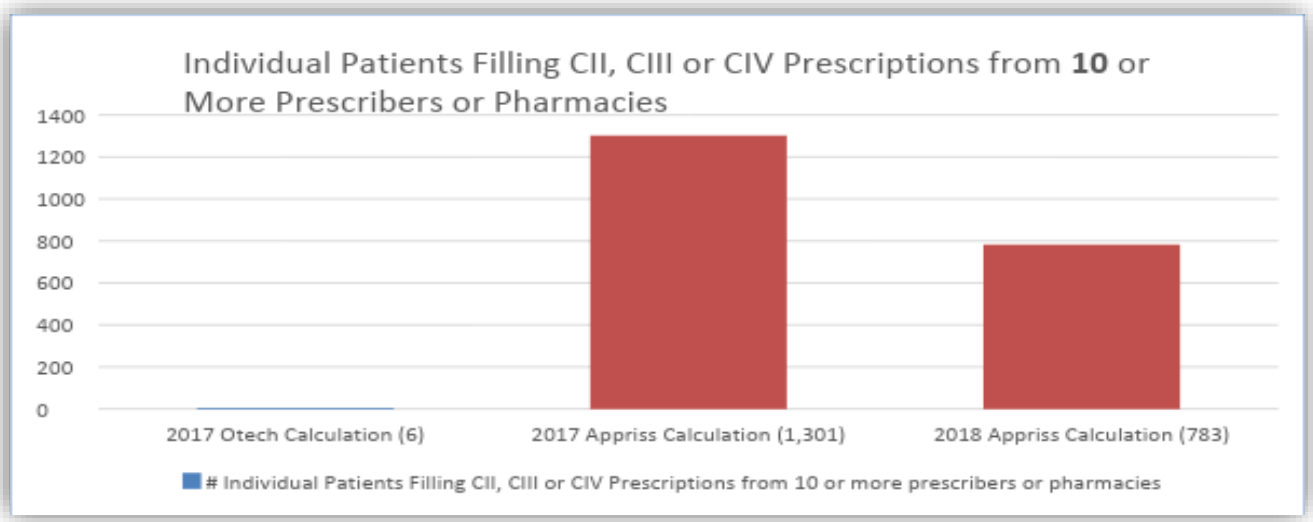
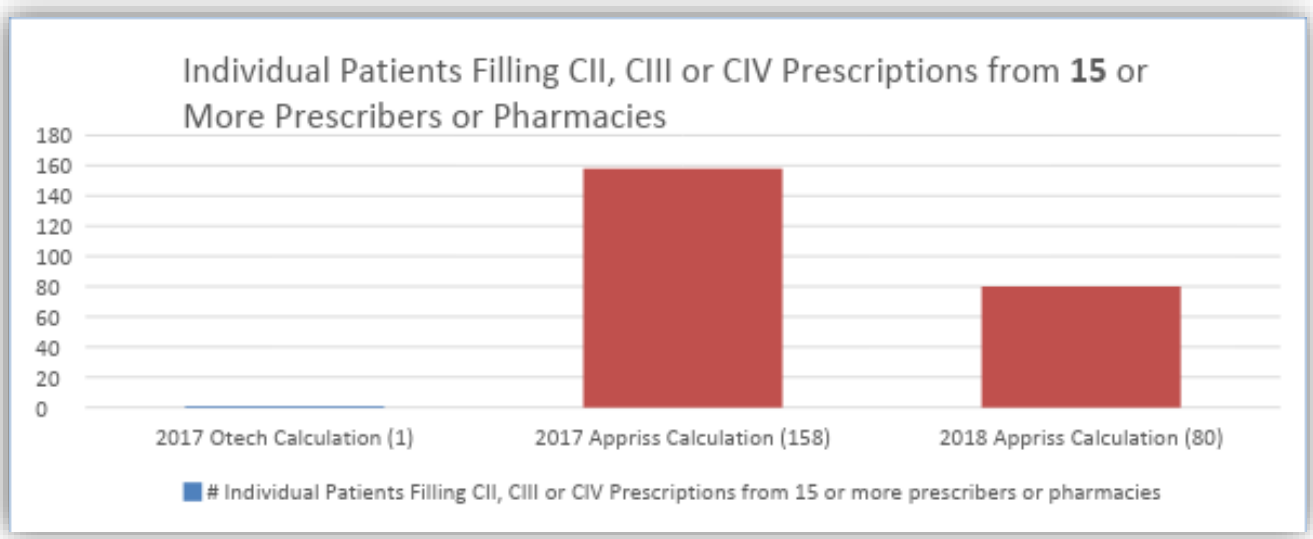


Figure 17:



While the accurate data regarding MPEs in Iowa is dismaying, it provides an opportunity for the PMP to launch dissemination of threshold reports to practitioners. The threshold reports will inform both pharmacists and prescribers of patients under their care that are filling controlled substance prescriptions from multiple prescribers and through multiple pharmacies. This, in turn, can open the door for the practitioner to have a discussion with the patient regarding at-risk behaviors.

Ongoing Improvement Efforts

2018 brought the first integration of the PMP with a hospital EHR. Following the conversion to the AWARxE platform, additional integrations were approved and activated without fear of a system crash. By the end of 2018, the PMP had integrated with 18 hospitals and pharmacies (Figure 18) and more facilities are steadily seeking to initiate the process. Those hospitals and pharmacies that integrated have expressed positive feedback indicating the timesaving benefit of having a patient's PMP records within the EHR or PDS workflow.

Figure 18: Facilities with Integrated PMP

Facility Name
Avera Health
Walmart Pharmacy
Yankton Medical Clinic, PC
St Luke's Healthcare
Summit Pharmacy (AZ Statewide)
Sergeant Bluff Pharmacy
Monroe County Hospital
Athena Health
Great River Health System
Carroll Apothecary
Pexton Pharmacy
Madison County Hospital
Ottumwa Regional Health Center
Franklin General Hospital
Anderson Pharmacy
Family Medicine Specialists
Daniel Pharmacy
Knoxville Hospitals and Clinics

Launch of the enhanced software and analytical platforms (AWARxE and NarxCare) on April 4, 2018, has positioned the PMP to serve as an even more useful tool in the midst of the opioid crisis. The majority of comments on the upgraded system have been positive. However, a recurring request from practitioners is for the program to have functionality enabled that will allow for pharmacists and prescribers to add information to a patient profile regarding concerns such as drug-seeking, drug screen results or issues that may have a bearing on prescribing decisions. The PMP has asked Appriss about the feasibility to add such a feature and Appriss plans to deploy a peer-to-peer communication tool within AWARxE and NarxCare during 2019.

PMP stakeholders have expressed gratitude for the expediency with which controlled substance prescription data is now available as a result of the rule change and HF 2377 necessitating next business day record reporting.

Collaboration with the Iowa Department of Public Health's (IDPH) Bureau of Substance Abuse continues through various grant projects. The de-identified PMP data that is shared with IDPH has proved to be of value in helping guide the department's statewide prevention activities.

SUMMARY

Iowa's PMP received a much-needed facelift in 2018, and the new software platform's features and capabilities are providing for an improved user experience. The PMP will continue to solicit and evaluate feedback from program users to assist in efforts to provide system enhancements.

As a result of the PMP upgrade, the real scope of Multiple Provider Episodes in Iowa was brought to light. Going forward we can now target efforts to reduce the number of patients who are at-risk for adverse events stemming from patients, who either consciously or inadvertently, receive controlled substances from numerous providers and have their prescriptions filled at numerous pharmacies.

The PMP staff and the Advisory Council look forward to strengthening the program in 2019 and having positive data trends persist.

Respectfully submitted,

Jennifer Tiffany
Associate Director Prescription Monitoring Program

IOWA PRESCRIPTION MONITORING PROGRAM REPORT 2018						
DATA COMPILATION						
JANUARY 1, 2013, TO DECEMBER 31, 2018						
Period:	**1/1/2013 - 12/31/2013**	**1/1/2014 - 12/31/2014**	**1/1/2015 - 12/31/2015**	**1/1/2016 - 12/31/2016**	**1/1/2017 - 12/31/2017**	**1/1/2018 - 12/31/2018**
Total CSA Registrant/Prescribers	14,891	15,491	16,012	16,357	17,091	17,553
Total Iowa Pharmacies*	1,520	1,708	1,703	1,728	1,695	1,786
Total Iowa-resident Pharmacists	3,489	3,523	3,568	3,607	3,633	3,755
Prescribers Registered	4,496	5,147	5,909	6,849	7,798	12,630
Pharmacists Registered	2,081	2,390	2,692	2,978	3,200	3,777
Regulators Registered	33	33	32	34	37	37
Law Enforcement Agents Registered	152	162	176	182	196	195
Practitioner Agents Registered	423	721	1,114	1,696	2,122	3,555
Prescriber Requests Processed via PMP Interconnect and Gateway						360,583
Prescriber Requests Processed (via AWARxE- starting 2018)	129,702	170,696	236,663	297,876	347,703	487,322
Total Prescriber Requests						847,905
Pharmacist Requests Processed via PMP Interconnect and Gateway						648,673

Pharmacist Requests Processed (via AWARxE - starting 2018)	48,040	68,669	91,174	94,482	99,196	172,827
Total Pharmacist Requests						821,500
LE/Regulator Requests Processed	484	487	459	461	577	517
Total # Requests Processed	178,226	239,852	328,296	392,819	447,476	1,669,922
**beginning 2013, includes nonresident pharmacies; required to report* effective 1/1/2013						
Filled prescriptions for period:	**1/1/2013 - 12/31/2013**	**1/1/2014 - 12/31/2014**	**1/1/2015 - 12/31/2015**	**1/1/2016 - 12/31/2016**	**1/1/2017- 12/31/2017**	**1/1/2018- 12/31/2018**
# Individual patients filling CII Rxs	425,604	769,937	905,146	733,586	679,262	505,808
...from 5 or more prescribers or pharmacies	42	303	169	232	194	9,332
…from 10 or more prescribers or pharmacies	-	2	1	2	1	227
…from 15 or more prescribers or pharmacies	-	-	-	-	-	27
# Individual patients filling CII or CIII Rxs	1,026,837	821,058	971,460	784,931	727,099	544,076
...from 5 or more prescribers or pharmacies	264	330	198	255	218	10,332
…from 10 or more prescribers or pharmacies	1	2	1	2	1	266
…from 15 or more prescribers or pharmacies	-	-	-	-	-	34
# Individual patients filling CII, III, IV Rxs	1,447,418	1,142,768	1,498,700	1,159,368	1,092,481	808,403
...from 5 or more prescribers or pharmacies	371	527	355	466	424	22,626

…from 10 or more prescribers or pharmacies	3	5	3	2	6	783
…from 15 or more prescribers or pharmacies	-	-	-	-	1	80
Total # Rxs dispensed for period:	4,679,271	4,800,912	5,183,996	5,182,263	4,712,701	4,646,391
Total # Doses dispensed for period:	260,092,453	269,466,402	303,030,950	300,729,482	271,499,890	255,569,745