



# 2019 Annual Report

Summary of IDPH Activities

Authorship – Iowa Board of Pharmacy

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Protecting and Improving the Health of Iowans



## Acknowledgements

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## List of Acronyms

API .....	Application Protocol Interface
COAP .....	Bureau of Justice Assistance Comprehensive Opioid Abuse Prevention
CSA .....	Controlled Substance Act
DAS .....	Department of Administrative Services
EHR .....	Electronic Health Records
IDPH .....	Iowa Department of Public Health
MPE .....	Multiple Provider Episodes
OCIO .....	Office of the Chief Information Officer
PDS .....	Pharmacy Dispensing Systems
PMP .....	Prescription Monitoring Program
RFP .....	Request for Proposal
STR .....	State Targeted Response to the Opioid Crisis

## Report Main Body

### Introduction

The Iowa Prescription Monitoring Program (PMP) became fully operational on March 25, 2009, and provides authorized prescribers and pharmacists with on-going 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 four physicians, three pharmacists and one non-physician prescriber appointed by the governor. The advisory council meets as needed, but at least once annually, 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 suggestions 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 1/1/19 through 12/31/19 is included in this report. Historical data since 2013 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 a 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 included limited functionality that did not enable 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) and the Department of Administrative Services (DAS), 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 AWARe™ solution. The contract was officially executed in January 2018. On March 28, 2018, data from the former Otech platform was successfully migrated into AWARe™ and the upgraded system became fully operational on April 4, 2018. Calendar year 2019 marked the first full year of use with the new AWARe™ software platform. The new platform and add-on services have been well received by PMP users.

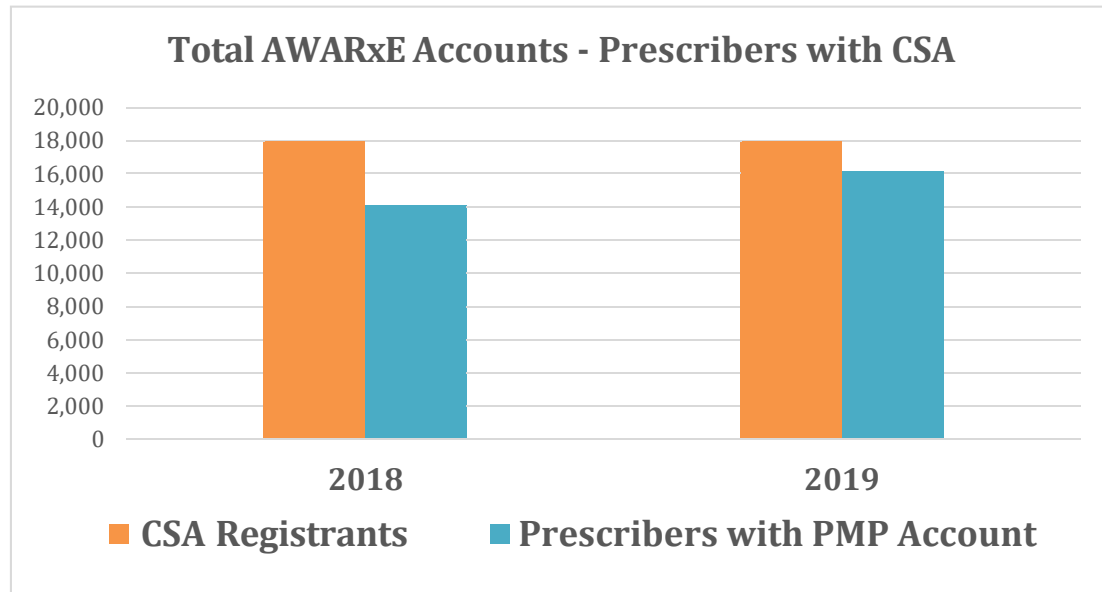
Cost for the AWARe™ solution is \$100,000 per year for the first two years of the contract. For contract years 3, 4, 5 and 6, the annual fees will increase to \$102,000, \$104,040, \$106,120 and \$108,250, respectively. Annual costs are paid from license fees retained by the Board for the support of 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 AWARe™ 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 overdose risk scores relating to each patient. NarxCare™ assists prescribers and dispensers in improving patient safety and bettering patient outcomes. The annual fee for NarxCare™ is \$186,000 per year, which was paid for in 2019 using funds from a Bureau of Justice Assistance Comprehensive Opioid Abuse Prevention (COAP) grant, a grant awarded jointly to the Iowa Department of Public Health and the Iowa Board of Pharmacy, and the State Targeted Response to the Opioid Crisis Grant (STR), a grant also jointly awarded to the Iowa Department of Public Health and the Iowa Board of Pharmacy. The COAP grant extended until September 30, 2019, and the STR grant extends until April 30, 2020. It is the intent of the Board to seek additional grant funding to pay for NarxCare™ beyond April 30, 2020.

## HF 2377/ “The Opioid Bill”

The enactment of HF 2377 into law on July 1, 2018, conferred new requirements on Iowa Controlled Substance Act (CSA) registrants and the PMP. One requirement of note is Iowa Code 124.551A which mandates that 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.” The percent of CSA registrants that had a PMP user account continued to increase throughout 2019, ending the year at approximately 88%. It is expected that this percentage will near 100% by mid-2020 (Figure 1):

Figure 1: CSA Registrants vs. PMP Prescriber Account Holders



In addition, HF 2377 mandated that Iowa licensing boards adopt rules requiring their respective licensees to utilize the PMP database prior to issuing an opioid prescription. The Iowa Board of Medicine, Board of Nursing, Dental Board, Board of Physician Assistants, and Board of Podiatry all enacted such requirements during calendar year 2019. The impact of these new regulations on PMP utilization is further highlighted in the “PMP Data” section below.

### 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 an effort to provide more contemporary PMP records, Iowa Administrative Code 657-37.3(3) was amended by the Board to require pharmacies to submit prescription data no later than the next business day following dispensing. The PMP and the Board continue to work in a coordinated effort to monitor and ensure compliance with the updated reported requirements, including an effort to purge the PMP files of closed or otherwise dormant pharmacies and updating AWARe™ to accurately reflect pharmacy hours of operation (e.g., identify and flag pharmacies closed Saturday, Sunday, holidays). Currently, the compliance (defined as no more than two days delinquent) rate for pharmacies hovers around 93.2% and is expected to increase in 2020 as AWARe™ pharmacy records continue to be brought up to date.

Prescription and PMP user data referenced in this report was collected by the PMP between January 1, 2019, and December 31, 2019. During the 2019 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 stand-alone AWARe™ web portal and integrated queries that originated through Gateway™ are shown separately for both pharmacist and prescriber provider categories. Both provider categories show a marked increase in patient searchers from 2018 to 2019 (Figures 2 and 3):

Figure 2: Pharmacist Queries (includes delegate requests)

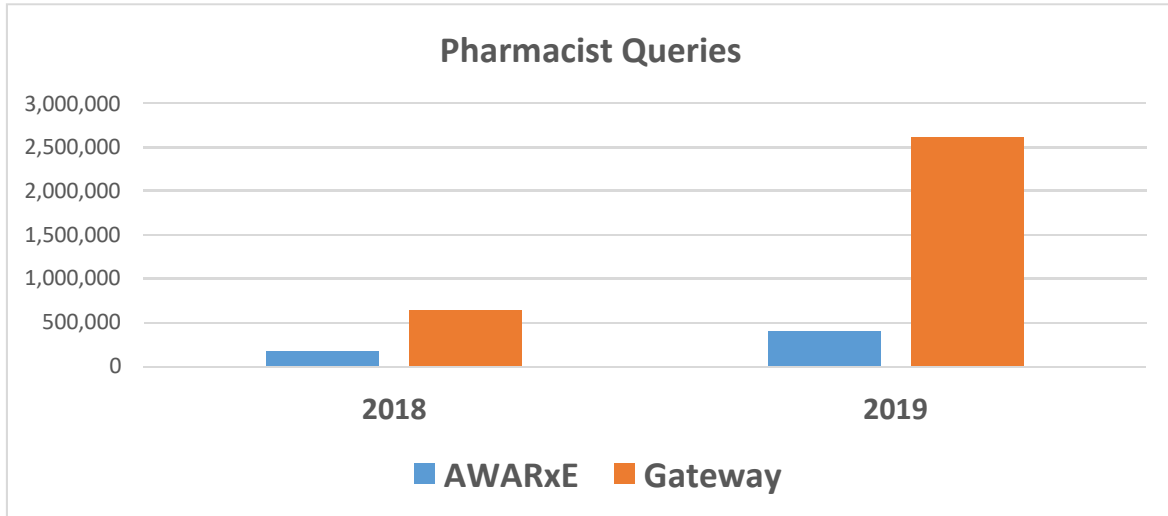
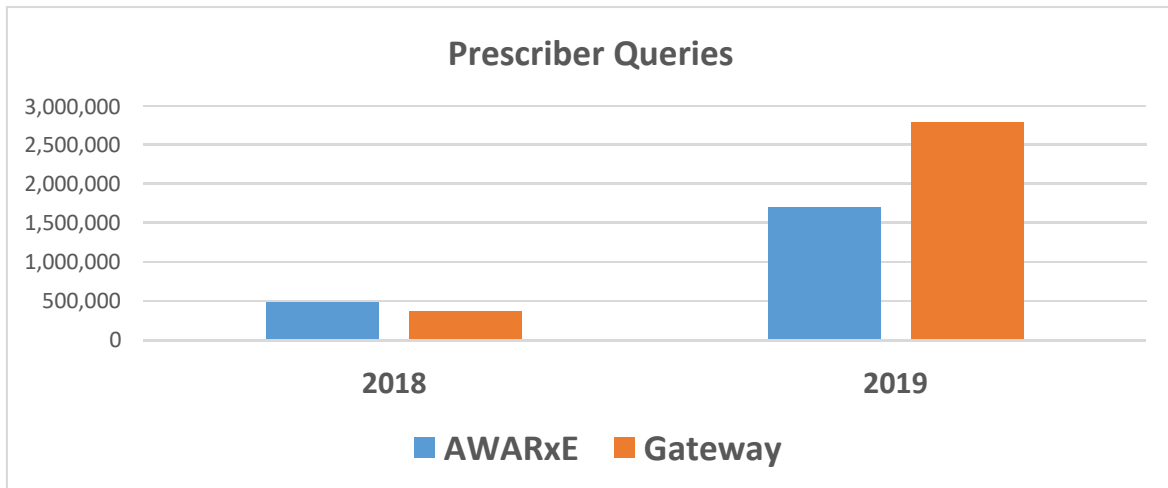


Figure 3: Prescriber Queries (includes delegate requests)



Figures 4 and 5 display the top 10 Schedule II-IV drugs by number of dosage units for years 2018 and 2019, respectively. The drugs that fill those top 10 spots were identical in 2018 and 2019, and the ranking order remained relatively consistent. Of note, the increase in percentage of oxycodone units seen in 2018, relative to the previous calendar year, 2017, did not continue. In fact, the percentage of oxycodone dosage units saw a decline from 9% to 8%, across 2018 to 2019.

Figure 4: Top 10 drugs by Dosage Units 2018

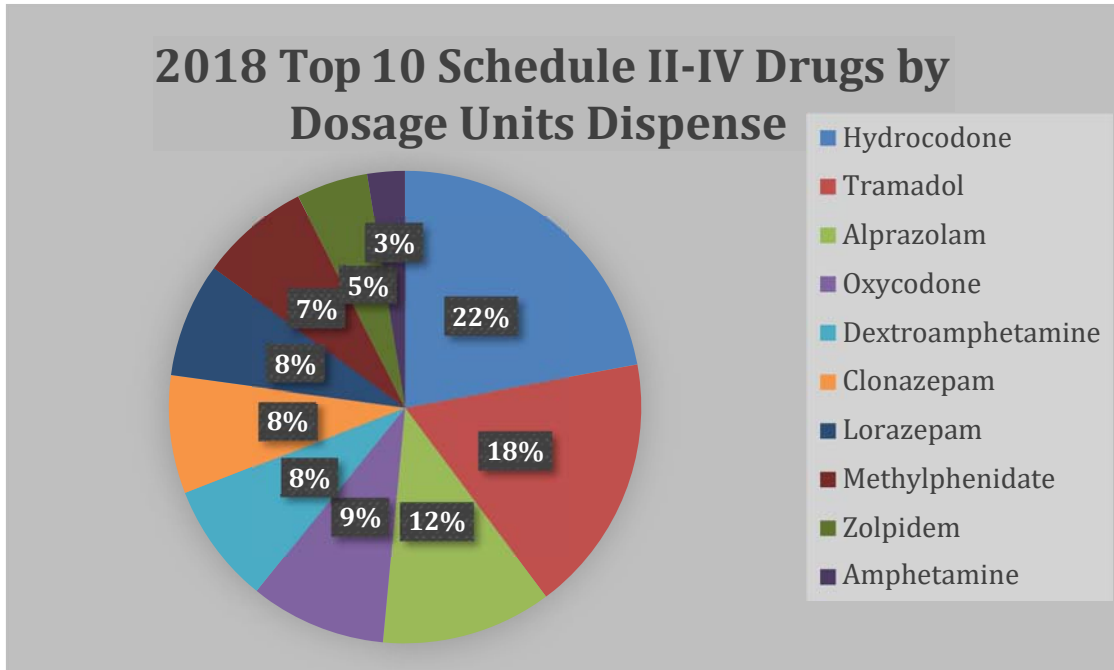
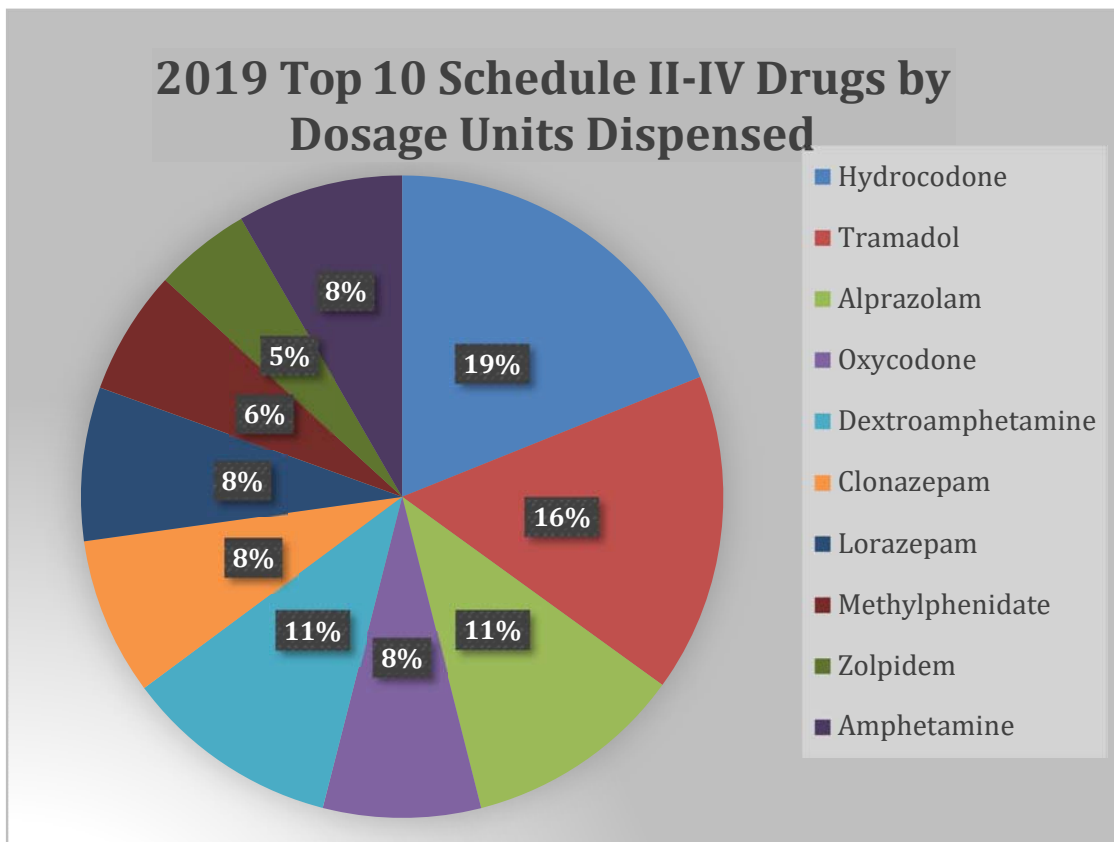
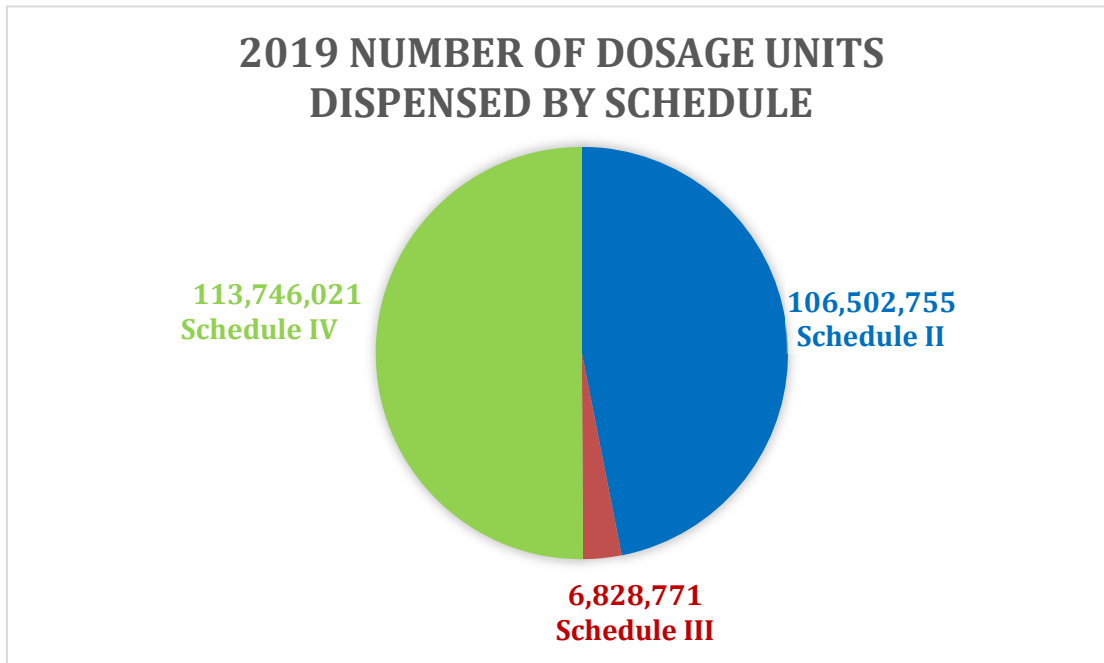


Figure 5: Top 10 drugs by Dosage Units 2019



Out of the three drug schedules that comprise prescription data reported to the PMP in 2019, 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 2018 until 2019, the total number of Schedule II-IV prescriptions dispensed decreased again, and was the lowest on record since 2013 (Figure 7). The same held true with the total number of dosage units dispensed (Figure 8).

Figure 7: Total Schedule II-IV Prescriptions Dispensed

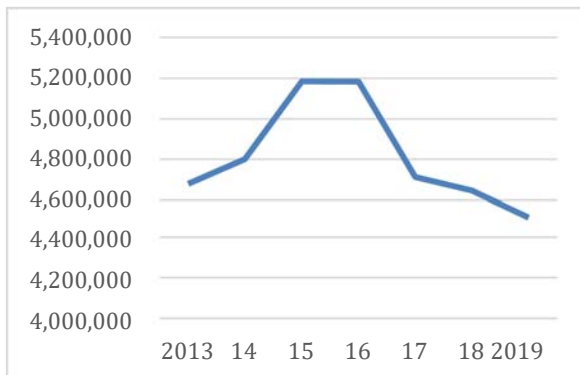
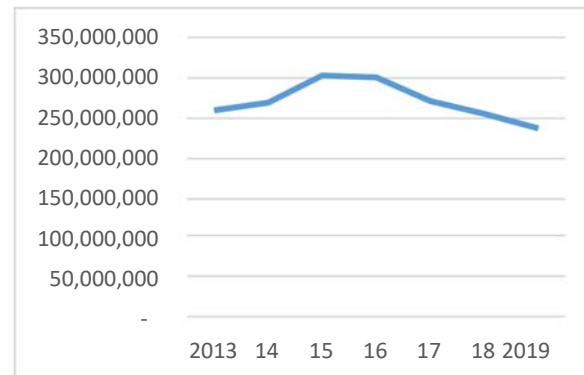


Figure 8: Total Schedule II-IV Dosage Units Dispensed



The current AWARe™ platform incorporates a sophisticated patient matching algorithm and logic to identify and track trends at the individual patient level. While the number of patients receiving prescriptions from multiple prescribers at multiple pharmacies, or patients with

multiple provider episodes (MPEs), was provided by our previous vendor, the values likely underestimated the actual number due to a less robust patient matching algorithm. Recalculated MPE estimates, provided by APPRISS for 2017, and actual MPE calculations from 2018 and 2019, reflect a significant reduction in Iowa patients with 5 or 10 MPEs across 2017 to 2019 (Figures 9 and 10, respectively).

Figure 9: Patients Filling Prescriptions from 5 or More Prescribers or Pharmacies

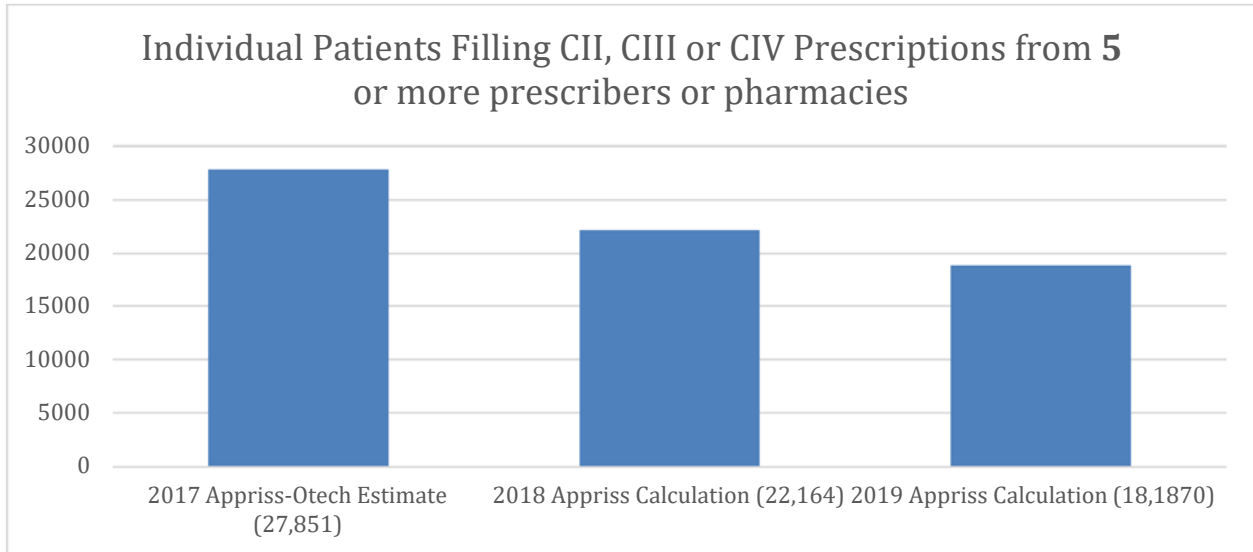
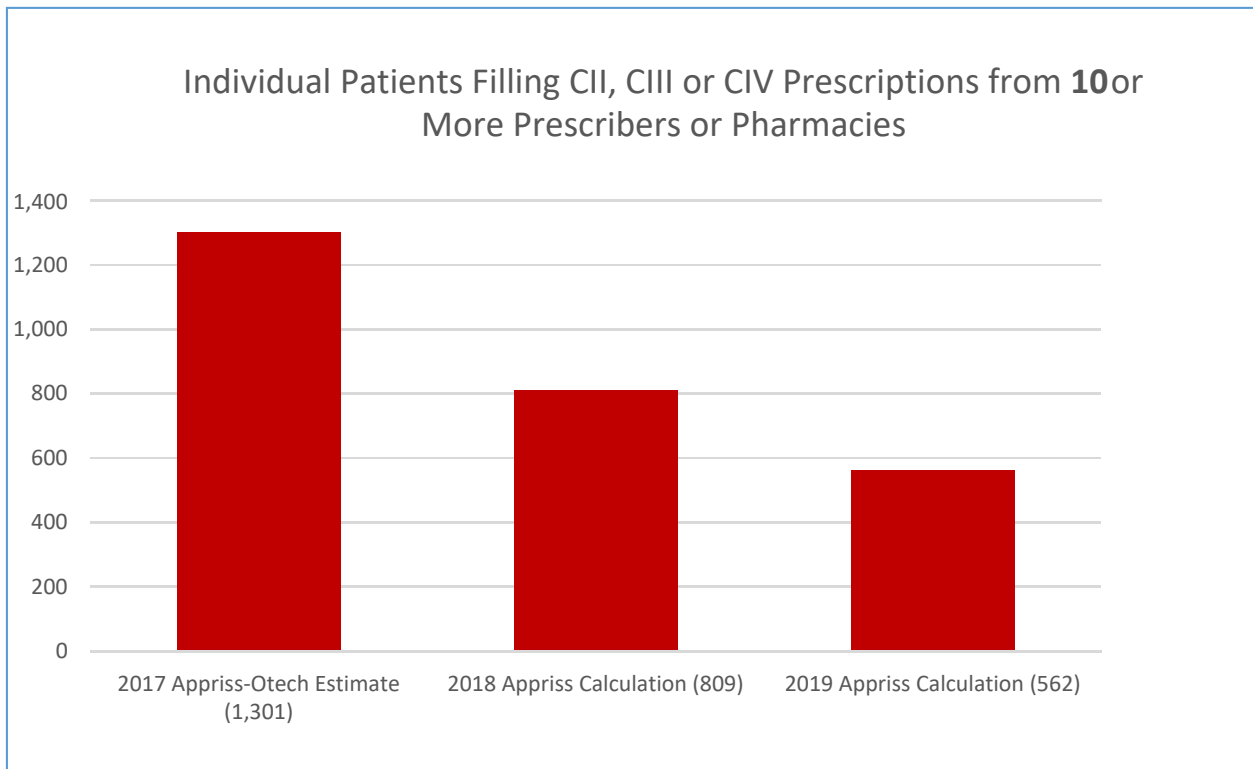
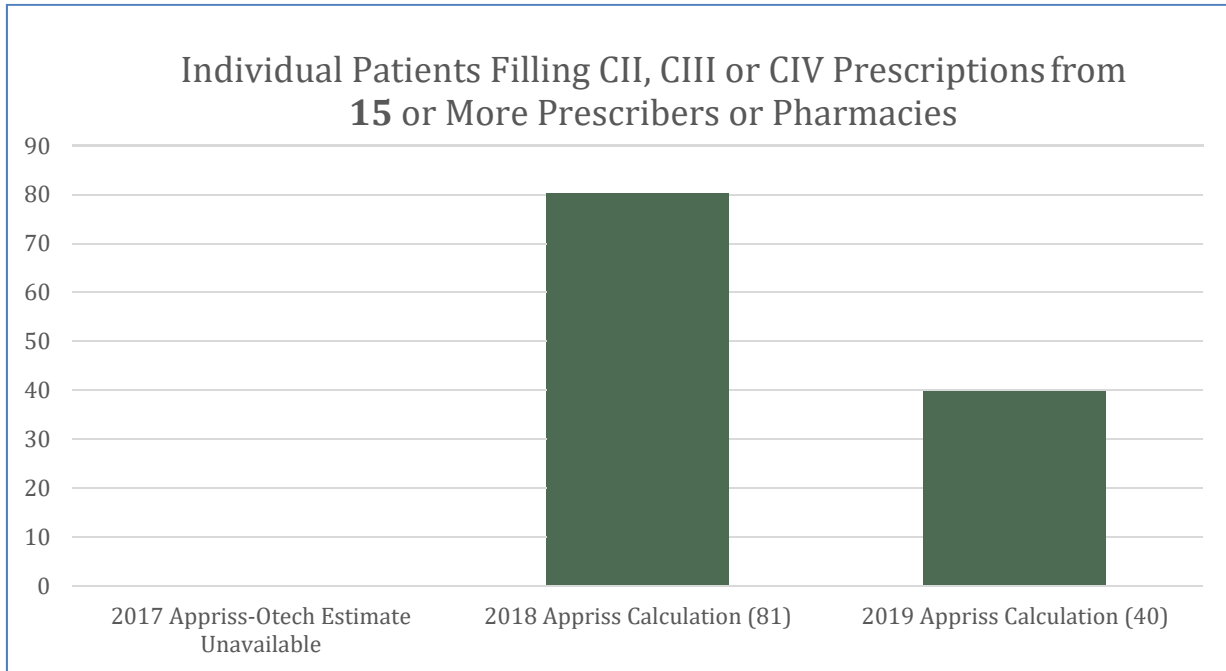


Figure 10: Patients Filling Prescriptions from 10 or More Prescribers or Pharmacies



A valid estimate for the number of patients with 15 or more MPEs in 2017 was not available and is therefore not reported. Nonetheless, a significant reduction in Iowa patients with 15 MPEs is seen between 2018 and 2019 (Figure 11):

Figure 11: Patients Filling Prescriptions from 15 or More Prescribers or Pharmacies



While the identification of potentially inaccurate MPE estimates prior to 2018 was disheartening, it provided an opportunity for the Iowa PMP to better launch the dissemination of provider threshold reports and prescriber activity reports. Threshold reports inform both pharmacists and prescribers of MPE patients under their care. Prescriber activity reports go to any Iowa prescriber who issued a Schedule II-IV controlled substance over the previous six months. The activity reports also provide a summary snapshot along with a benchmark comparison relative to a prescriber’s specialty area practice peers.

The most recent round of 2019 threshold reports identified 64 patients exhibiting MPE behavior and reports were sent to 135 prescribers and pharmacies. The most recent round of 2019 prescriber activity reports were sent to 9,890 prescribers. Suggestions from providers based on review of their reports included the provision of additional provider specialty practice areas for dentists and a recommendation to explore ways to measure the validity and reliability of data reported to the PMP by dispensing pharmacies.

### Ongoing Improvement Efforts

2019 brought the first full year of integration of the PMP with hospital EHRs and pharmacy PDSs. By the end of 2019, the PMP had integrated with 93 Iowa hospitals and pharmacies,

compared to 18 integrations at the close of calendar year 2018. Those hospitals and pharmacies that integrated have expressed positive feedback indicating a timesaving benefit of having a patient's PMP records within the EHR or PDS workflow.

Launch of the enhanced software and analytical platforms (AWARxE™ and NarxCare™) in 2018 positioned the PMP to serve as an even more useful tool in the midst of the opioid crisis. The majority of comments on the upgrades remain positive. A recurring suggestion from practitioners for the program to allow pharmacists and prescribers to add information to a patient profile regarding concerns such as drug-seeking, drug screen results, opioid contracts or other information resulted in the 2019 deployment of a peer-to-peer communication tool within AWARxE™ and NarxCare™. An APPRISS user validation issue currently limits pharmacist use of the communications module. A working solution to allow pharmacists to fully utilize the communications module is expected from APPRISS within the first quarter of 2020.

PMP stakeholders continue to express gratitude for the expediency with which Iowa controlled substance prescription data is now available as a result of the 2018 rule change necessitating next business day record reporting. Iowa's PMP continued to receive needed facelifts and updates in 2019, 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 continued efforts to provide system enhancements.

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 and monitoring activities. IDPH anticipates making a public facing dashboard, highlighting historical PMP data and opioid and controlled substance use trends available during the first half of calendar year 2020. The public facing dashboard will be available on both the IDPH and Board's websites.

## Summary

The impact of previous and on-going efforts by the Iowa PMP can be shown in year-to-year increases in both provider PMP registration and utilization, year-to-year reductions in the number of Iowa patients who are at-risk for adverse events stemming from either consciously or inadvertently, receiving controlled substances from numerous providers and pharmacies, and overall year-to-year decreases in the total number of Schedule II-IV prescriptions and total number of dosage units dispensed per capita. Goals for the Iowa PMP in 2020 include efforts to increase PMP registration among CSA registrants to 100%, a reduction in the number and percentage of delinquent reporting pharmacies, and securing funding to methodologically examine the validity of Iowa PMP data.

The PMP staff, the Advisory Council, and the Board of Pharmacy look forward to strengthening the program in 2020 and maintaining persistent positive data trends.

## Appendix A – Iowa PMP Historical Data

### Appendix A: 2013 to 2019 Historical Data

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	1/1/2019 - 12/31/2019
CSA Registrant/ Prescribers	14,891	15,491	16,012	16,357	17,091	17,553	17,933
Total Iowa Pharmacies	1,520	1,708	1,703	1,728	1,695	1,786	1,635
Total Iowa Pharmacists	3,489	3,523	3,568	3,607	3,633	3,755	3,704
Prescribers Registered	4,496	5,147	5,909	6,849	7,798	12,630	16,583
Pharmacists Registered	2,081	2,390	2,692	2,978	3,200	3,777	4,000
Regulators Registered	33	33	32	34	37	37	42
Law Enforcement Agents Registered	152	162	176	182	196	195	129
Practitioner Delegates	423	721	1,114	1,696	2,122	3,555	4,531
Prescriber Requests via PMP Interconnect and Gateway						360,583	2,793,442
Prescriber Requests Processed	129,702	170,696	236,663	297,876	347,703	487,322	1,701,886
Total Prescriber Requests						847,905	4,495,328
Pharmacist Requests via Interconnect and Gateway						648,673	2,610,050
Pharmacist Requests Processed via AWARxE	48,040	68,669	91,174	94,482	99,196	172,827	407,675
Total Pharmacist Requests						821,500	3,017,725
LE/Regulator Requests Processed	484	487	459	461	577	517	1,515
Total # Requests Processed	178,226	239,852	328,296	392,819	447,476	1,669,922	2,116,238
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	1/1/2019 - 12/31/2019
# patients filling CII Rxs	425,604	769,937	905,146	733,586	679,262	505,808	447,753
# patients filling CII or CIII Rxs	1,026,837	821,058	971,460	784,931	727,099	544,076	481,033
# patients filling CII-IV Rxs	1,447,418	1,142,768	1,498,700	1,159,368	1,092,481	808,403	730,874
Total # Rxs dispensed	4,679,271	4,800,912	5,183,996	5,182,263	4,712,701	4,646,391	4,515,063
Total # Doses dispensed	260,092,453	269,466,02	303,030,950	300,729,482	271,499,890	255,569,745	237,644,176