IOWA BOARD OF PHARMACY
February 2025

2024 Annual Report

IOWA PRESCRIPTION MONITORING PROGRAM

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SUMMARY

The impact of previous and ongoing efforts by the Prescription Monitoring Program (PMP) can be shown in year-to-year increases in both provider PMP utilization and overall year-to-year decreases in the total number of opioid dosage units dispensed per capita. Goals for the PMP in 2025 include continued efforts to reduce the number and percentage of delinquent reporting pharmacies, promote appropriate access to and utilization of the AWARxE™ database through user update-and-confirm initiatives, better oversight of delegate accounts, and integration nationwide via targeted outreach to states and territories not currently connected with Iowa.

INTRODUCTION

The PMP became fully operational on March 25, 2009, and provides authorized prescribers and pharmacists with ongoing information regarding their patients' use of controlled substances. It 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 resident and nonresident, and dispensing prescribers are required to report to the PMP all Schedule II, III, IV, and V controlled substances along with overdose-reversal opioid antagonists (e.g. naloxone) dispensed to ambulatory patients.

The Iowa Board of Pharmacy (board) administers the PMP with the assistance and guidance of an advisory council, which currently consists of two physicians, two non-physician prescribers, one pharmacist, one veterinarian, and one law enforcement member appointed by the board. It should be noted that Senate File 2385, which was enacted during the 2024 legislative session, changed the advisory council to a committee to consist of at least one pharmacist, one physician, one nonphysician prescriber, one prescribing practitioner licensed by the Iowa Board of Nursing, and other members as determined by the Board of Pharmacy. This change will be implemented when the committee convenes for the first time in early 2025.

The advisory committee will continue to meet as needed to review the cost and progress of the PMP. Additionally, the committee will examine the benefits of the program, possible enhancements to the program, and information, comments, and suggestions received from program users and interested stakeholders.

The board reviews statistical data regarding the use of the PMP by prescribers, pharmacists, law enforcement, and regulatory agents. The board may review the number of prescriptions filled yearly, the top drugs dispensed in Iowa each year, and indices of excessive pharmacy- or doctor-shopping for controlled substances. Assessment of PMP data collected from Jan. 1, 2024, through Dec. 31, 2024, is included in this report.

Notable accomplishments of the 2024 calendar year for the Iowa PMP include:

1. Continued implementation of an Overdose Data to Action (OD2A) grant-funded initiative to fully cover vendor-related costs associated with PMP integration for entities within the state;
2. Data sharing and integration with PMP programs in 44 states and territories;
3. Continued work to provide authorization (authentication) protocols to verify current PMP accountholder status before returning any program search results.

OPERATIONS

From March 25, 2009, until April 3, 2018, the PMP ran on the Otech software platform developed by Optimum Technologies. The cost of the implementation of the PMP was funded by a $411,250 federal grant. From 2009–2018, the annual cost for the receipt and delivery of pharmacy data and software maintenance was approximately $112,000, even after Optimum Technologies was acquired by Appriss Health (now DBA Bamboo Health) on April 24, 2015. The Otech platform included limited functionality that did not enable PMP administrators to run many basic statistical reports. That, 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, electronic medical record (EMR) systems, and pharmacy-dispensing systems (PDS) propelled the board to initiate a request for proposal (RFP) process. In 2017, the board, in conjunction with the Iowa Office of the Chief Information Officer (OCIO) and the Iowa Department of Administrative Services (DAS), awarded a contract to Appriss Health (Bamboo Health) for its PMP AWARxE™ platform. The contract was officially executed in January 2018. On March 28, 2018, data from the former Otech platform was successfully migrated into AWARxE™, and the upgraded system became fully operational on April 4, 2018, with additional annual extensions optional until April 1, 2028. The AWARxE™ platform and add-on services continue to be well received by the PMP users in Iowa.

The cost for the AWARxE™ platform was $100,000 per year for the first two years of the contract, and has increased by 3% annually. The fee for contract year 2025 is $114,585. Annual costs are paid from the Licensing and Regulation Fund established by 2023 Iowa Acts, Senate File 557. No additional user fees or surcharges have been imposed to pay for the activities or support of the PMP since its inception, though Iowa Code section 124.557 authorizes the board to assess a surcharge of up to 25% of Controlled Substances Act registration fees to be deposited into the drug information program fund.

NarxCare™ was selected as an add-on service to further enhance the AWARxE™ software platform. NarxCare™ aids practitioners with their clinical decision-making and assists prescribers and dispensers in improving patient safety and outcomes. NarxCare™ summarizes and analyzes data collected by the PMP and generates summary information, additional insights, and overdose risk scores related to each patient. The annual fee for NarxCare™ is $186,000, which was previously funded using funds from the OD2A grant. However, the overall OD2A budgets awarded by the U.S. Centers for Disease Control and Prevention (CDC) for 2024 were decreased, eliminating the funding needed for this service. Ultimately, DIAL paid for NarxCare™ in 2024. The PMP administrator was able to secure funds for 2025 from the State Opioid Response Grant (SOR4), a grant awarded to the Iowa Department of Health and Human Services (HHS) through the Substance Abuse and Mental Health Services Administration (SAMHSA). The PMP administrator is currently exploring options to fund NarxCare™ in 2026 and beyond.

HF 2377/ "THE OPIOID BILL"

The enactment of House File 2377 into law on July 1, 2018, conferred new requirements on Iowa Controlled Substances Act (CSA) registrants and the PMP. Iowa Code section 124.551A 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 prescribe controlled substances as required by the board." The percentage of CSA registrants with a PMP user account remained at 100% throughout 2024.

In addition, House File 2377 requires that Iowa licensing boards adopt rules requiring their respective licensees to utilize the PMP database prior to issuing an opioid prescription. As a result, the Iowa Dental Board and boards of Medicine, Nursing, Physician Assistants, Podiatry, Psychology, and Optometry adopted rules relating to such requirements during calendar years 2019 and 2020. Thus, 2024 represented the fourth full calendar year since the licensing boards adopted these requirements.

USER METRICS

From March 25, 2009, until May 15, 2018, pharmacies were only required to submit data on reportable prescriptions to the PMP on a weekly basis. In an effort to provide more contemporary PMP records, Iowa Administrative Code 657 section 37.12(2) was amended to require pharmacies to submit prescription data by the next business day after dispensing. The PMP and the board continue to work in a coordinated effort to monitor and ensure compliance with the updated reporting requirements, including an effort to update the AWARxE™ database to reflect pharmacy closures and ensure accurate pharmacy hours of operation are documented.

During the 2024 calendar year, the number of active pharmacist and prescriber user accounts decreased. This was expected, as duplicate and dormant accounts were deactivated and invalid delegate accounts were removed. Efforts to clean up user accounts will continue in 2025. Despite this decrease, the number of patient queries from both provider types (prescriber and pharmacist) was 29% higher in 2024 than in 2023. These increases have been driven primarily by the rise in the number of integrations between the PMP and electronic health records, electronic medical records, and pharmacy dispensing systems, as well as the statewide integration (SWI) initiative. To date, all integrations have been enabled using an application protocol interface (API) known as Gateway™. Both provider categories show a marked increase in total patient searches from 2020 to 2024 via the Gateway™ integration solution, versus stagnant use of direct access via the AWARxE™ platform. (Figures 1 and 2).

Pharmacist Queries

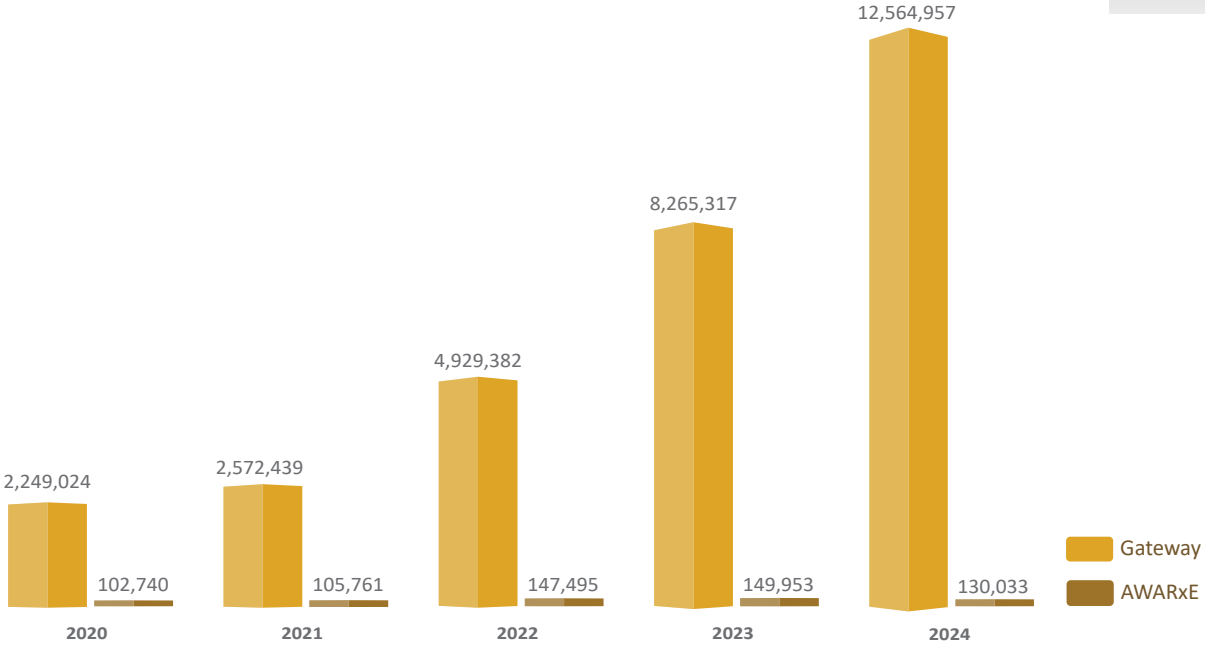


Figure 1: Pharmacist Queries (includes delegate requests)

Prescriber Queries

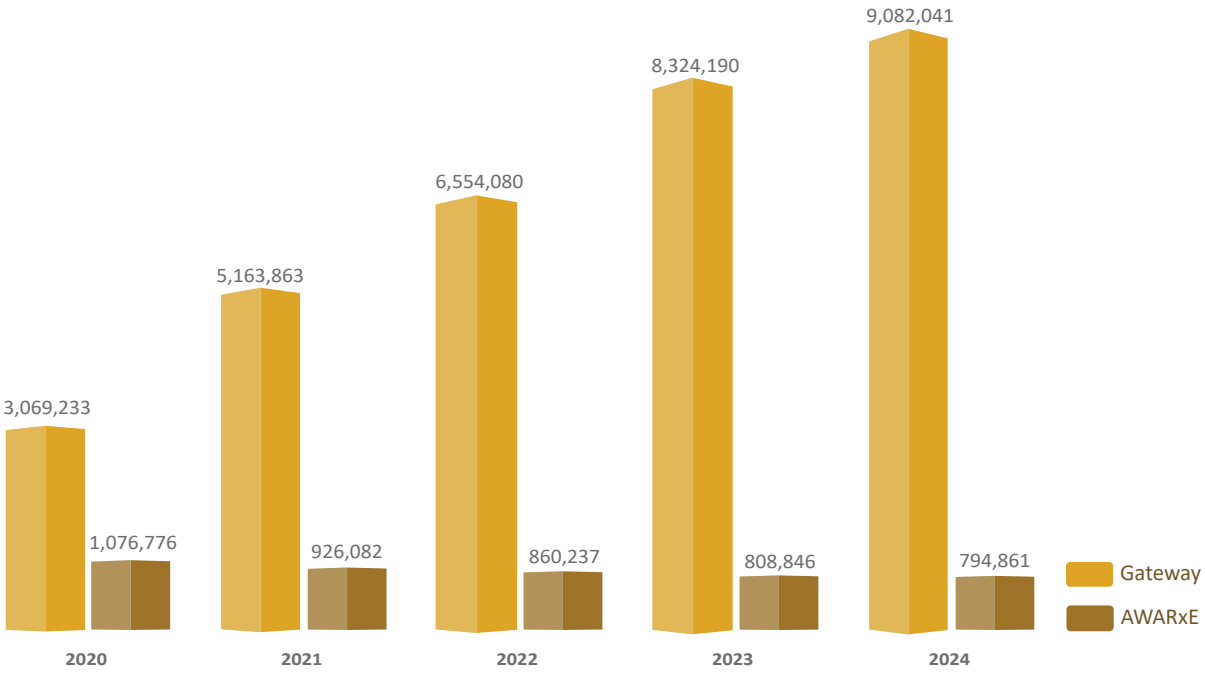


Figure 2: Prescriber Queries (includes delegate requests)

PMP DATA

Figures 3 through 10 display the top 10 Schedule II-V drugs by number of prescriptions and number of dosage units dispensed for years 2021-2024. Pregabalin is in the top 10 for dosage units dispensed across all four years. However, amphetamine takes its place in the top 10 for prescriptions issued across all four years. Methylphenidate overtook tramadol at number three for the number of prescriptions dispensed in 2023 and 2024. Dextroamphetamine came in third for units dispensed, but second for prescription count from 2021-2023. It should be noted that dextroamphetamine surpassed hydrocodone as the most prescribed medication in 2024. This aligns with similar trends seen across the U.S., where stimulant use is on the rise.

2021 Top 10 Schedule II-V Drugs by Units Dispensed

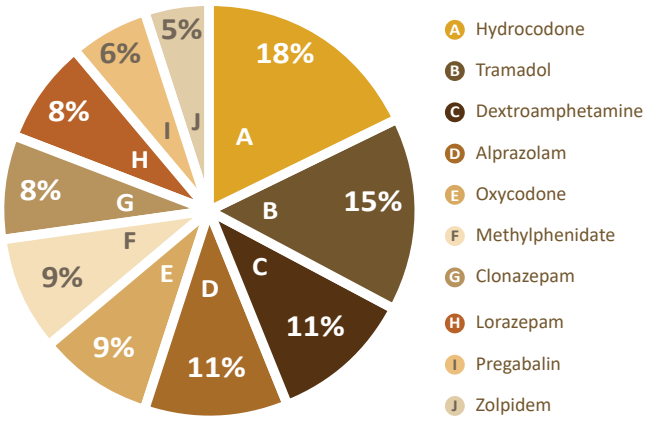


Figure 3: 2021 Top 10 Schedule II-V Drugs by ***Dosage Units Dispensed***

2021 Top 10 Schedule II-V Drugs by Prescription Count

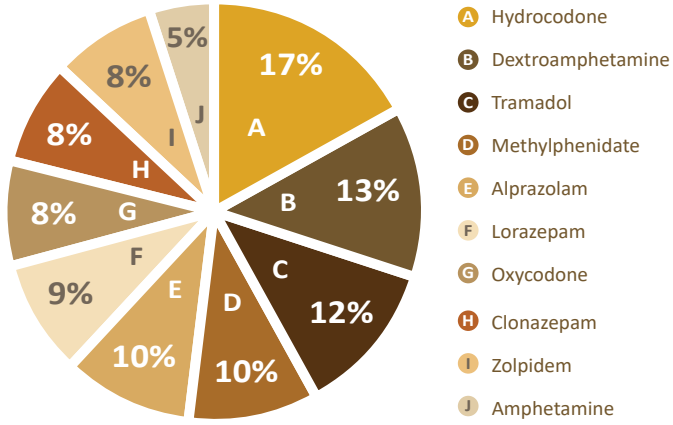


Figure 4: 2021 Top 10 Schedule II-V Drugs by ***Prescription Count***

2022 Top 10 Schedule II-V Drugs by Units Dispensed

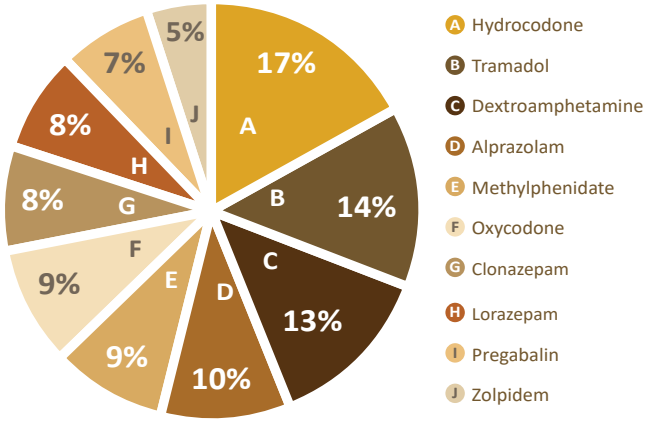


Figure 5: 2022 Top 10 Schedule II-V Drugs by ***Dosage Units Dispensed***

2022 Top 10 Schedule II-V Drugs by Prescription Count

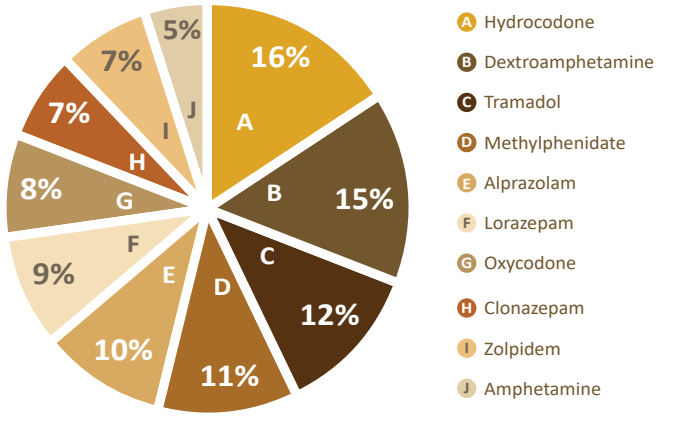


Figure 6: 2022 Top 10 Schedule II-V Drugs by ***Prescription Count***

2023 Top 10 Schedule II-V Drugs by Units Dispensed

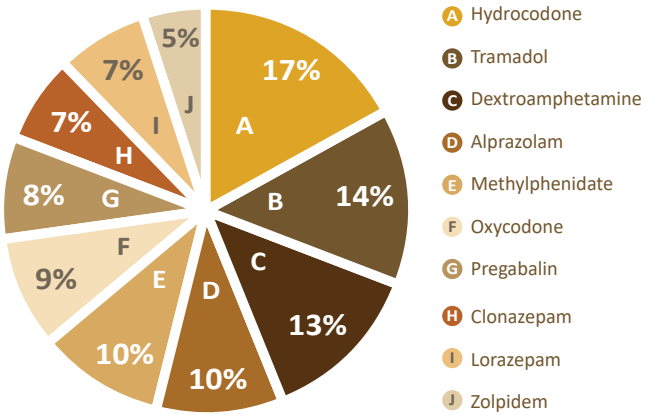


Figure 7: 2023 Top 10 Schedule II-V Drugs by ***Dosage Units Dispensed***

2023 Top 10 Schedule II-V Drugs by Prescription Count

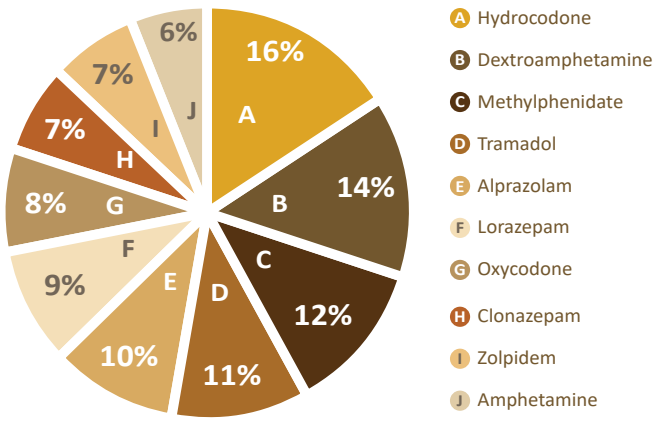


Figure 8: 2023 Top 10 Schedule II-V Drugs by ***Prescription Count***

2024 Top 10 Schedule II-V Drugs by Units Dispensed

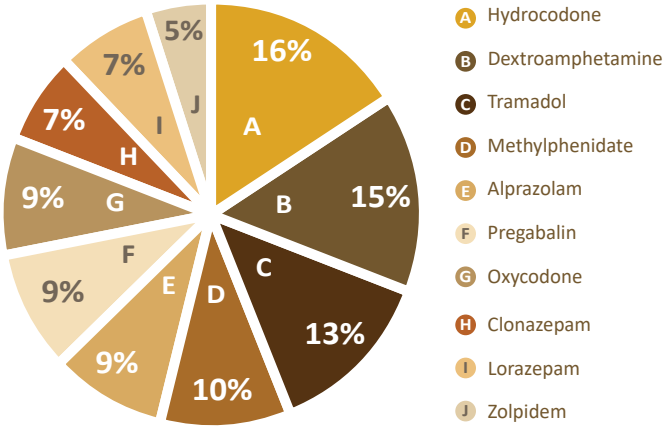


Figure 9: 2024 Top 10 Schedule II-V Drugs by ***Dosage Units Dispensed***

2024 Top 10 Schedule II-V Drugs by Prescription Count

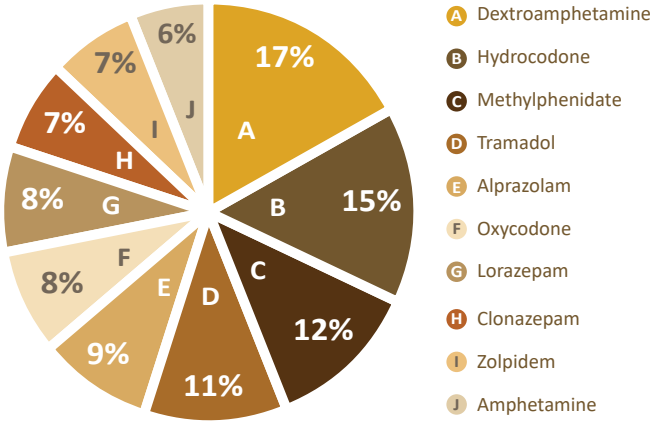


Figure 10: 2024 Top 10 Schedule II-V Drugs by ***Prescription Count***

Beginning in May 2021, all Schedule V (CV) prescriptions were required to be reported to the PMP. Thus, 2024 was the third full calendar year since this new reporting requirement took effect. Common CV prescriptions include promethazine with codeine (Phenergan with Codeine®), atropine/diphenoxylate (Lomotil®), and pregabalin (Lyrica®), among others. This rule change also added the nonprescription sale of codeine-containing cough suppressants to the list of reportable transactions. Out of the four drug schedules that comprise prescription data reported to the PMP, Schedule V and Schedule III continue to rank a distant third and fourth in dosage units dispensed in 2024. (Figure 11):

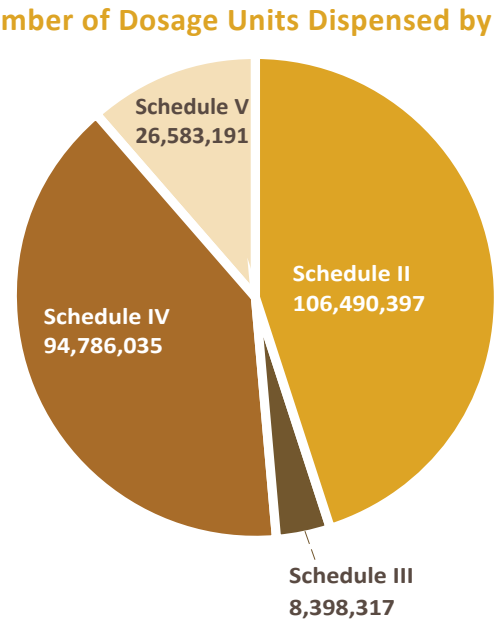


Figure 11: 2024 Number of Dosage Units Dispensed by Schedule

Even with the additional reporting of Schedule V medications beginning in May 2021, the total number of reportable prescriptions dispensed increased from 2023 to 2024, but remained lower than the 2016-2017 calendar years (Figure 12).

YEAR PRESCRIPTIONS DISPENSED	TOTAL NUMBER OF PRECRIPTIONS DISPENSED	YEAR PRESCRIPTIONS DISPENSED	TOTAL NUMBER OF PRECRIPTIONS DISPENSED
2016	5,182,263	2021*	4,508,097
2017	4,909,296	2022*	4,630,962
2018	4,628,514	2023*	4,725,387
2019	4,477,224	2024*	4,863,123
2020	4,325,626		

*Figure 12: Total Schedule II-IV Prescriptions Dispensed (*Includes reporting of CVs for 2021-2024)*

The total number of dosage units dispensed also increased from 2023 to 2024, but still remains below total quantities dispensed prior to 2019 (Figure 13).

YEAR DOSAGE UNITS DISPENSED	TOTAL NUMBER OF DOSAGE UNITS DISPENSED	YEAR DOSAGE UNITS DISPENSED	TOTAL NUMBER OF DOSAGE UNITS DISPENSED
2016	300,729,482	2021*	232,648,806
2017	278,322,713	2022*	235,556,695
2018	254,910,150	2023*	233,260,447
2019	236,062,505	2024*	236,030,295
2020	225,628,665		

*Figure 13: Total Schedule II-IV Dosage Units Dispensed (*Includes reporting of CVs for 2021-2024)*

Excluding Schedule Vs from 2024 reporting revealed an increase in total prescriptions dispensed and only slightly higher numbers of dosage units dispensed compared to 2023 (Figures 14 and 15, respectively). This suggests that the number of Schedule II-IV dosage units dispensed appears to be leveling off.

YEAR PRESCRIPTIONS DISPENSED	TOTAL NUMBER OF PRESCRIPTIONS DISPENSED
2019	4,382,355
2020	4,225,589
2021	4,308,362
2022	4,369,363
2023	4,456,058
2024	4,567,835

Figure 14: Total Schedule II-IV Prescriptions Dispensed Over Previous 5 years (excludes reporting of CVs for 2021-2024)

YEAR DOSAGE UNITS DISPENSED	TOTAL NUMBER OF DOSAGE UNITS DISPENSED
2019	237,644,176
2020	216,079,923
2021*	213,453,802
2022*	210,662,884
2023*	208,690,718
2024*	209,480,834

Figure 15: Total Schedule II-IV Dosage Units Dispensed Over Previous 5 years (excludes reporting of CVs for 2021-2024)

The number of opioid prescriptions dispensed has stayed relatively steady while the dosage units dispensed has continued to fall (Figures 16 and 17). This is indicative of patients receiving smaller quantities (i.e. for a shorter duration of therapy and/or at decreased doses) per dispensation. Meanwhile, benzodiazepine prescriptions and dosage units dispensed continue their downward trend (Figures 18 and 19).

YEAR OPIOID PRESCRIPTIONS DISPENSED	TOTAL NUMBER OF OPIOID PRESCRIPTIONS DISPENSED
2019	1,727,610
2020	1,598,986
2021*	1,628,613
2022*	1,607,712
2023*	1,575,924
2024*	1,542,752

*Figure 16: Total Opioid Prescriptions Dispensed (*Includes reporting of CVs for 2021-2024)*

YEAR OPIOID DOSAGE UNITS DISPENSED	TOTAL NUMBER OF OPIOID DOSAGE UNITS DISPENSED
2019	107,978,529
2020	97,989,858
2021*	97,092,910
2022*	94,631,108
2023*	89,658,944
2024*	86,393,721

*Figure 17: Total Opioid Dosage Units Dispensed (*Includes reporting of CVs for 2021-2024)*

YEAR BENZODIAZEPINE PRESCRIPTIONS DISPENSED	TOTAL NUMBER OF BENZODIAZEPINE PRESCRIPTIONS DISPENSED
2019	1,179,337
2020	1,148,827
2021*	1,115,358
2022*	1,095,152
2023*	1,068,908
2024*	1,042,581

*Figure 18: Total Benzodiazepine Prescriptions Dispensed (*Includes reporting of CVs for 2021-2024)*

YEAR BENZODIAZEPINE DOSAGE UNITS DISPENSED	TOTAL NUMBER OF BENZODIAZEPINE DOSAGE UNITS DISPENSED
2019	61,436,913
2020	59,719,980
2021*	56,900,100
2022*	54,296,143
2023*	51,477,334
2024*	49,839,463

*Figure 19: Total Benzodiazepine Dosage Units Dispensed (*Includes reporting of CVs for 2021-2024)*

Figures 20 and 21 reflect the trends noted in the top 10 drugs dispensed in 2024. The total number of stimulant prescriptions and dosage units dispensed continues to rise.

YEAR STIMULANT PRESCRIPTIONS DISPENSED	TOTAL NUMBER OF STIMULANT PRESCRIPTIONS DISPENSED
2019	1,017,469
2020	1,013,877
2021*	1,110,119
2022*	1,228,028
2023*	1,334,341
2024*	1,481,636

*Figure 20: Total Stimulant Prescriptions Dispensed (*Includes reporting of CVs for 2021-2024)*

YEAR STIMULANT DOSAGE UNITS DISPENSED	TOTAL NUMBER OF STIMULANT DOSAGE UNITS DISPENSED
2019	42,429,101
2020	42,284,797
2021*	45,846,637
2022*	50,300,692
2023*	53,627,650
2024*	58,575,090

*Figure 21: Total Stimulant Dosage Units Dispensed (*Includes reporting of CVs for 2021-2024)*

REPORTING

Threshold reports inform both pharmacists and prescribers of patients under their care who are receiving prescriptions from multiple prescribers, multiple pharmacies, or patients with multiple provider episodes (MPEs). The most recent round of threshold reports from 2024 identified 53 patients exhibiting MPE behavior, with reports being sent to 564 prescribers and pharmacies. While it is impossible to prove the direct impact of implementing threshold reports on patient MPE behavior, a strong correlation is observed between the rollout of threshold reports and relative total reductions in MPEs since 2018.

Prescriber activity reports are sent to any Iowa prescriber who issued a Schedule II-V controlled substance prescription reported over the previous six months. The activity reports also provide a summary snapshot along with a benchmark comparison relative to a prescriber's peers within the prescriber's specialty practice area. The provider specialty code or "practice area" is used for benchmarking purposes and is provided as part of the confidential prescriber activity reports. A valid specialty code is vital for the metric to provide meaningful feedback to the prescriber. Outreach by the PMP to prescribers who are missing a provider specialty code in their PMP profile will continue in 2025.

Prescriber activity reports sent out in the last quarter of 2021 included an important format update. The new format contained several improvements, including enhanced security measures and interactive capabilities. The interactive capabilities allow prescribers to "drill down" and identify individual patients from within their report. An example report is shown in Appendix A. Feedback from prescribers regarding the updated format was positive. The most recent round of 2024 prescriber activity reports were sent to 11,646 prescribers.

ONGOING IMPROVEMENT EFFORTS

Calendar year 2024 brought the fifth full year of integration of the PMP with hospital and clinic electronic health records (EHRs) and pharmacy dispensing systems (PDSs). Integrated entities and providers continue to express positive feedback, reinforcing the timesaving benefit of having a patient's PMP records within their EHR or PDS clinical workflow. Additional efforts to increase PMP integration with Iowa providers in 2024 involved supporting and administering a major grant awarded to Iowa HHS to fund the statewide integration initiative (SWI). The OD2A grant directly covered 100% of the Gateway™-related subscription and connection fees for all entities in the state. Prior to SWI, these integration fees were negotiated and paid for by the individual entities. Since the rollout of SWI in June 2022, Iowa has seen an increase in the percentage of pharmacies integrated, from 28.6% to 64.28%, and an increase in prescriber integration by 23%, relative to pre-SWI.

The launch of the enhanced software and analytical platforms (AWARxE™ and NarxCare™) in 2018 positioned the PMP to serve as a more useful tool amid the opioid crisis. The majority of comments on the upgrades remain positive. Bamboo Health continues to update, enhance, and promote the communication capabilities within the AWARxE™ platform. Another notable enhancement is the incorporation of the administration of an opioid rescue medication (e.g., naloxone) by first responders or EMS as an additional risk indicator in the patient's PMP profile and NarxCare™ report. Iowa remains one of only a handful of states to offer this feature to their providers through NarxCare™. Having this measure available within a patient's PMP profile provides additional insight to prescribers and pharmacists regarding potential patient overdose risk factors.

PMP stakeholders and end users continue to express gratitude for the expediency with which Iowa controlled substance prescription data is now available as a result of the 2018 rule changes. In addition, feedback regarding ongoing efforts by the PMP to promote cost-effective integration solutions and provide financial and logistical support continues to be positive. The PMP will continue to solicit and evaluate feedback from program stakeholders and end users to assist in ongoing monitoring efforts to provide the most cost-effective, user-friendly, and useful system enhancements.

Collaboration with Iowa HHS continues through various grant projects. This includes sharing, with Iowa HHS, PMP data without personally identifiable information of patients; this has proved to be valuable in helping guide the department's statewide prevention and monitoring activities. In addition, Iowa HHS and the PMP continued to make enhancements and provide updates to the public-facing dashboard, which was first made available in 2020. The dashboard highlights historical PMP data and opioid and controlled substance use trends. Additional dashboard enhancements, including metrics related to patients' stimulant use, are planned for 2025. The public-facing dashboard is available on the state's data tracking portal website.

APPENDIX

APPENDIX A – REVISED PRESCRIBER ACTIVITY REPORT

State

Prescription Monitoring Program
PMP Prescriber Report

APPRISS HEALTH

Date: 7/23/2019
Name: Sam Smith
Role: Physician (MD, DO)

Date Covered by this Report: 01/8/2019-6/08/2019
DEA #: AA11111
Specialty: Pain Medicine

Total Prescribers Within Your Specialty: 91

TOP MEDICATIONS PRESCRIBED

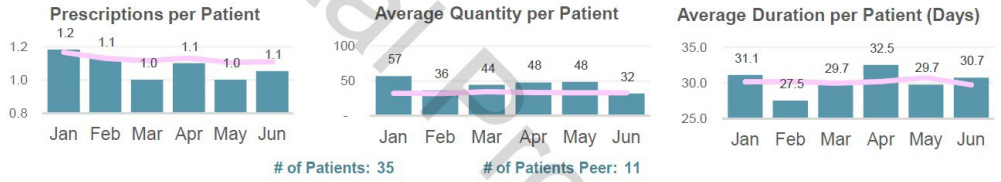
hydrocodone bitartrate/acetaminophen	oxycodone HCl	oxycodone HCl/acetaminophen

You — Peer Specialty Comparison

OPIOIDS

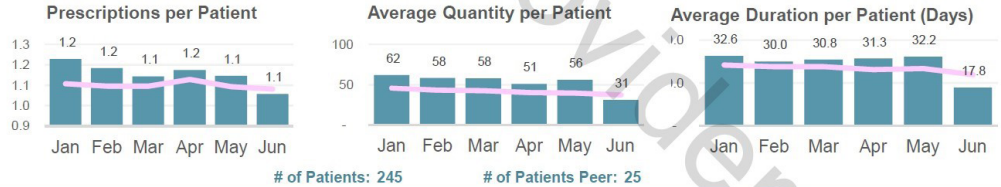
# of Patients: 1,284 # of Patients Peer: 314

BUPRENORPHINE



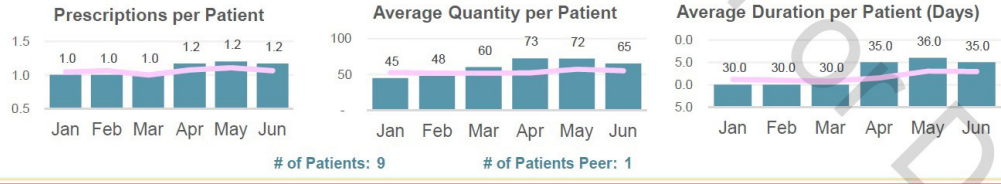
# of Patients: 35 # of Patients Peer: 11

SEDATIVES



# of Patients: 245 # of Patients Peer: 25

STIMULANTS



# of Patients: 9 # of Patients Peer: 1

AT-RISK PATIENTS

Dangerous Combination		Multiple Providers	MME Threshold
Benzo + Opioid		Patients with 5 or more Prescribers	Patients Receiving Daily MME >= 90
104 (You)	458 (You + Other Prescribers)	52	291
Benzo + Opioid + Carisoprodol		Patients with 5 or more Pharmacies	Patients Receiving Daily MME >= 120
1 (You)	15 (You + Other Prescribers)	0	125

PDMP USAGE

Patient Searches by You	Patient Searches by Your Delegate(s)	Your Total Patient Searches
34	5,377	5,411

Not an Actual Provider of DEA

APPENDIX B – LIST OF FIGURES

APPENDIX C – LIST OF ACRONYMS

API .....Application Protocol Interface

CSA .....Controlled Substances Act

DIAL ..... Department of Inspections, Appeals, and Licensing

EHR .....Electronic Health Records

EMR .....Electronic Medical Records

EMS .....Emergency Medical Services

HHS..... Health and Human Services

MPE .....Multiple Provider Episodes

OCIO .....Office of the Chief Information Officer

OD2A .....Overdose Data to Action

PDS .....Pharmacy Dispensing Systems

PMP .....Prescription Monitoring Program

RFP.....Request for Proposal

SAMHSA.....Substance Abuse and Mental Health Services Administration

SOR4 .....State Opioid Response Grant

STR.....State Targeted Response to the Opioid Crisis

SWI .....Statewide Integration

Department of Inspections, Appeals, & Licensing

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