



OHIO AUTOMATED RX REPORTING SYSTEM

2018 ANNUAL REPORT



**STATE OF
OHIO**
BOARD OF PHARMACY

Mike DeWine
Governor

Steven W. Schierholt, Esq.
Executive Director

www.pharmacy.ohio.gov



OHIO AUTOMATED RX REPORTING SYSTEM

What is OARRS?

To address the growing misuse and diversion of prescription drugs, the Ohio General Assembly adopted legislation in 2004 authorizing the State of Ohio Board of Pharmacy to create a Prescription Monitoring Program (PMP), known as the Ohio Automated Rx Reporting System (OARRS). Established in 2006, OARRS collects information on all outpatient prescriptions for controlled substances and two non-controlled substances (gabapentin and naltrexone) dispensed by Ohio-licensed pharmacies and personally furnished by Ohio prescribers. This data is reported every 24 hours and is maintained in a secure database. Drug wholesalers and manufacturers are also required to submit information monthly on all controlled substances and gabapentin sold to an Ohio licensed pharmacy or prescriber.

OARRS serves multiple functions, including: patient care tool; drug epidemic early warning system; and drug diversion and insurance fraud investigative tool. As the only statewide electronic database that stores all controlled substance dispensing and personal furnishing information, OARRS helps prescribers and pharmacists avoid potentially life-threatening drug interactions as well as identify individuals fraudulently obtaining controlled substances from multiple healthcare providers, a practice commonly referred to as "doctor shopping."

It can also be used by professional licensing boards to identify or investigate clinicians with patterns of inappropriate prescribing and dispensing, assist law enforcement in cases of controlled substance diversion, provide drug court judges and court personnel with critical information regarding a participant's use of controlled substance medications, and provide hospital peer review committees information on a prescriber who is subject to the committee's evaluation, supervision, or discipline.

To learn more about OARRS, please visit: www.pharmacy.ohio.gov/oarrs.

Submission of this Report

Pursuant to section 4729.85 of the Revised Code, the State of Ohio Board of Pharmacy respectfully submits the following report on opioid pain relievers and other controlled substances dispensed by Ohio pharmacies or personally furnished by prescribers. This report will be disseminated to the Governor, the President of the Senate, the Speaker of the House of Representatives, the Attorney General, the chairpersons of the standing committees of the House of Representatives and the Senate that are primarily responsible for considering health and human services issues, the Department of Public Safety, the State Dental Board, the Board of Nursing, the State Vision Professionals Board, the State Medical Board, and the State Veterinary Medical Licensing Board.



**STATE OF
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BOARD OF PHARMACY

Dear Governor DeWine and Members of the Ohio General Assembly,

On behalf of the members of the State of Ohio Board of Pharmacy, I am pleased to provide the 2018 Ohio Automated Rx Reporting System (OARRS) Annual Report. The report demonstrates Ohio's continued progress in promoting the safe prescribing of opioids and benzodiazepines.

OARRS is a vital tool in Ohio's efforts to combat prescription drug misuse and abuse. Use of the system continues to increase at record rates thanks to the Board's efforts to promote the integration of OARRS into electronic health records and pharmacy dispensing systems. Since implementing the first statewide integration program in the nation, we have onboarded a significant number of health systems, clinics and pharmacies throughout the state. Because of these efforts, more than 41,000 pharmacists and prescribers have instant access to OARRS as part of their workflow.

Data from OARRS also plays an invaluable role in protecting the health and well-being of Ohioans, including:

- **Identifying aberrant healthcare providers:** Dedicated Board staff use OARRS data to identify and investigate healthcare professionals who may be engaged in criminal activity. Such efforts have led to criminal indictments, convictions and administrative actions.
- **Identifying those who may need help:** The Board recently implemented a pre-criminal intervention program that uses OARRS data to identify individuals who may be exhibiting signs of addiction. Once identified, specially trained Board agents engage these individuals to connect them with appropriate drug treatment and other support services.
- **Driving policy decisions:** Through collaborative efforts with other state agencies, OARRS data is used to develop new policies and initiatives. For example, data from the system was used to develop common-sense prescribing limits as part Ohio's new rules governing the use of opioids for the treatment of acute pain.

The Board recognizes that it is important to provide students in the healthcare field with tools to reinforce best practices. To that end, the Board launched OARRS Academy in September 2018. OARRS Academy is a training program designed to simulate the use of OARRS. The program comes pre-loaded with data for a variety of sample patients and allows for the creation of additional sample patients. It is available at no cost to all Ohio colleges and universities engaged in the training of pharmacists and prescribers. For more information on OARRS Academy, visit: www.oarrsacademy.ohio.gov.



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New for the 2018 Annual Report is information on the dispensing of controlled substance stimulants. Examples of such stimulants include amphetamine (Dexedrine®, Adderall®), methamphetamine (Desoxyn®), and methylphenidate (Ritalin®). Since 2012, the total doses of controlled substance stimulants dispensed to Ohio patients increased by 20 percent. The Board will continue to closely monitor this trend.

As the pages of this report will attest, Ohio is making significant strides in its efforts to promote a measured approach to the prescribing of opioids and benzodiazepines. This progress would not be possible without the support of our partners at all levels, including Ohio's healthcare provider community.

On behalf of the members of the State of Ohio Board of Pharmacy, I thank you for your leadership and ongoing support of OARRS. If you have any questions regarding the work of the Board, please do not hesitate to contact my office by phone (614-466-4143) or by e-mail: contact@pharmacy.ohio.gov.

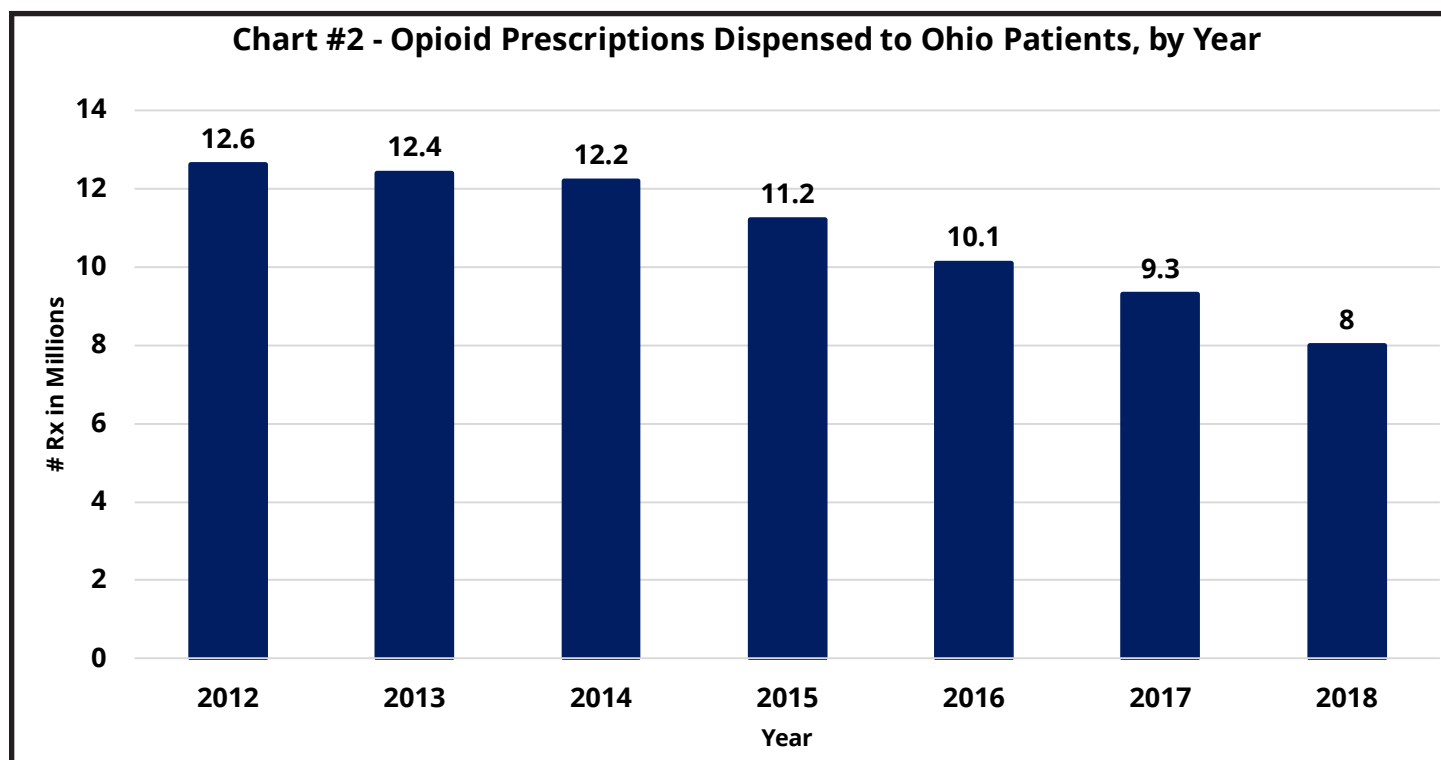
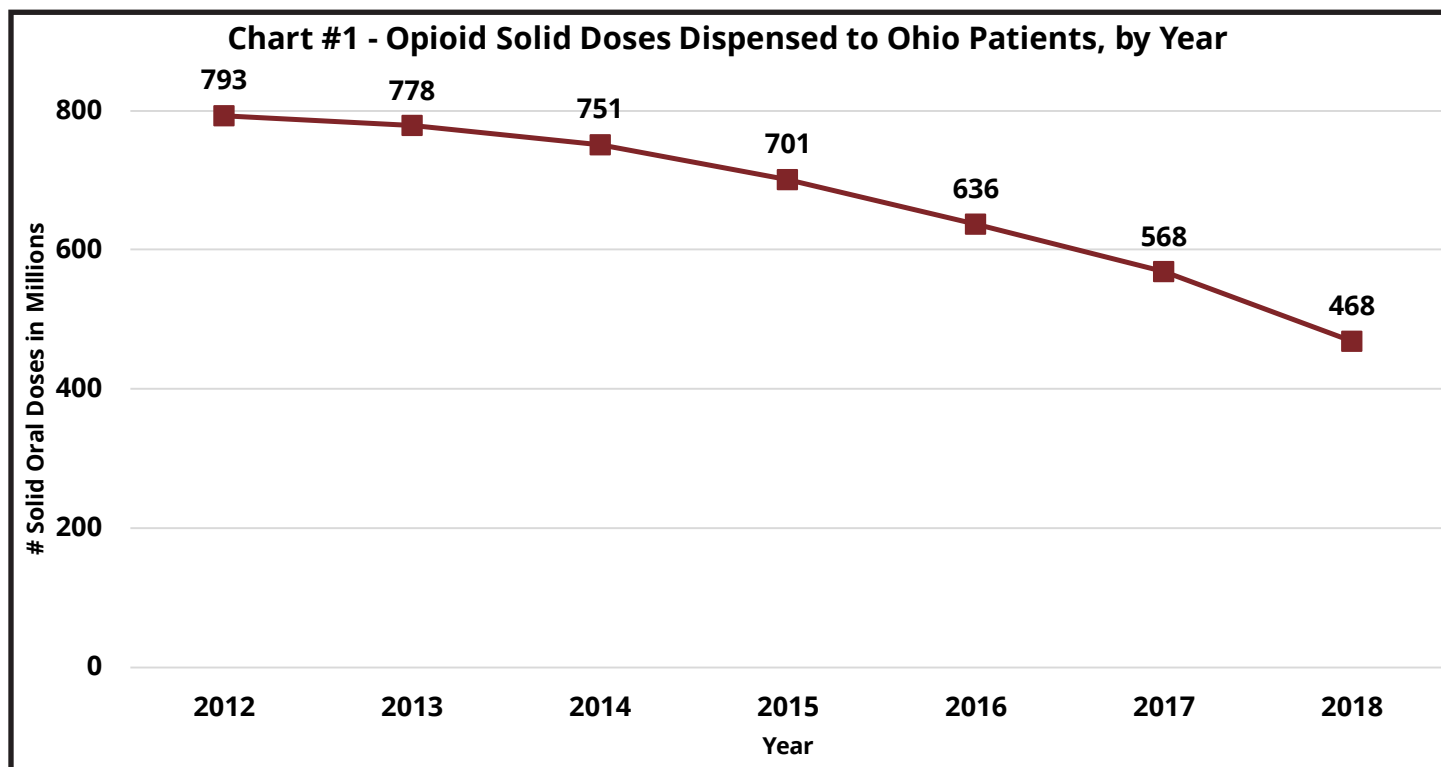
Sincerely,

A handwritten signature in black ink that reads "Steven W. Schierholt". The signature is written in a cursive, flowing style.

Steven W. Schierholt, Esq.
Executive Director
State of Ohio Board of Pharmacy

Section 1: Opioids Dispensed to Ohio Patients

In 2018, the number of opioid doses* and prescriptions dispensed to Ohio patients continued to decrease. Total doses of opioids decreased from a high of 793 million in 2012 to 468 million in 2018, a 41 percent decrease (Chart #1). The total number of opioid prescriptions decreased by 4.6 million between 2012 and 2018, a 37 percent decrease (Chart #2).



*Solid dosage units only (eg. tablets, capsules and patches). Liquids and powders are not included.

Pursuant to section 4729.85 of the Revised Code, the Board is required to report opioid prescriptions dispensed by pharmacies to Ohio patients (see Table #1), including all of the following information:

- The number of prescribers who issued prescriptions for opioid pain relievers;
- The number of patients to whom opioid pain relievers were dispensed;
- The average quantity of opioid pain relievers dispensed per prescription;
- The average daily morphine equivalent dose (MED) of the opioid pain relievers dispensed per prescription.

Table #1 - Opioids* Dispensed to Ohio Patients, by Year

Year	No. of Prescribers	No. of Patients	Average Quantity per Prescription	Average Daily MED per Prescription
2010	55,895	2,733,066	64.37	53.35
2011	66,554	2,761,707	64.55	48.58
2012	66,649	3,053,090	65.38	47.89
2013	65,452	2,686,169	65.20	46.66
2014	63,178	2,650,078	64.15	45.34
2015	57,673	2,615,768	64.59	44.92
2016	56,287	2,359,175	65.48	44.43
2017	55,107	1,998,846	66.48	43.23
2018	56,221	1,850,561	63.43	39.23

*Buprenorphine used to treat opioid dependence or addiction is excluded.

WHAT IS A MORPHINE EQUIVALENT DOSE?

A morphine equivalent dose (MED) is the total amount of opioid medications, converted to a common unit (milligrams of morphine), that a patient currently has access to based on the information reported by prescribers and pharmacies to OARRS. Morphine is widely regarded as the “standard” for the treatment of moderate to severe pain and is commonly used as a reference point. As MED increases, the likelihood of an adverse event increases, therefore identifying at-risk patients is a crucial first step towards improving patient safety. OARRS utilizes opioid conversions created by the US Centers for Disease Control and Prevention (CDC).

Ohio’s Rules on Prescription Opioids for Acute Pain generally limit an opioid prescription for acute pain to an average of 30 mg MED per day. For more information on the rules, visit: www.pharmacy.ohio.gov/acutelimits.

Ohio prescribers also need to follow new regulations when prescribing opioids for the treatment of long-term pain (lasting 12 weeks or more) and subacute pain (lasting between six and 12 weeks). The new rules establish MED check points to ensure appropriate prescribing. For more information on the rules, visit: www.pharmacy.ohio.gov/chronicpain.

Section 2: Opioids Personally Furnished by Ohio Prescribers

Pursuant to section 4729.85 of the Revised Code, the Board is required to report on the number of opioid pain relievers that have been personally furnished to a patient by an Ohio prescriber (see Table #2), including all of the following information:

- The number of prescribers who personally furnished opioid pain relievers;
- The number of patients to whom the opioid pain relievers were personally furnished;
- The average quantity of the opioid pain relievers that were furnished at one time;
- The average daily morphine equivalent dose (MED) of the opioid pain relievers that were furnished at one time.

Table #2 - Opioids* Personally Furnished by Ohio Prescribers, by Year

Year	No. of Prescribers	No. of Patients	Average Quantity Per Instance	Average Daily MED per Instance
2010**	13	1,394	306.46	114.04
2011**	93	735	69.70	35.32
2012	198	2,215	15.02	19.92
2013	180	2,761	9.15	17.95
2014	192	2,085	10.11	19.64
2015	235	1,877	17.41	31.20
2016	113	1,465	28.26	29.29
2017	34	888	24.67	25.29
2018	31	970	15.71	19.49

*Buprenorphine used to treat opioid dependence or addiction is excluded.

**Mandatory reporting to OARRS by prescribers who personally furnish controlled substances went into effect on May 20, 2011.

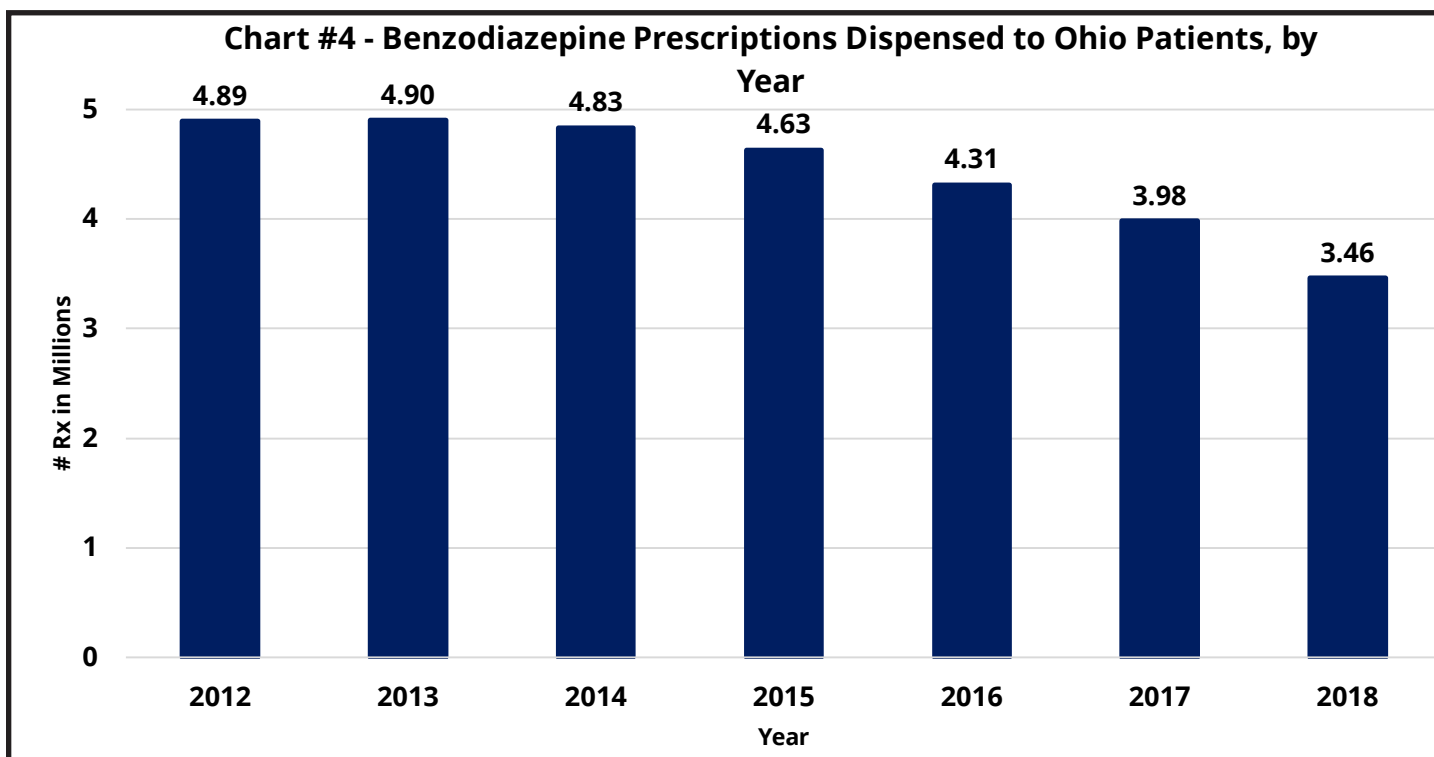
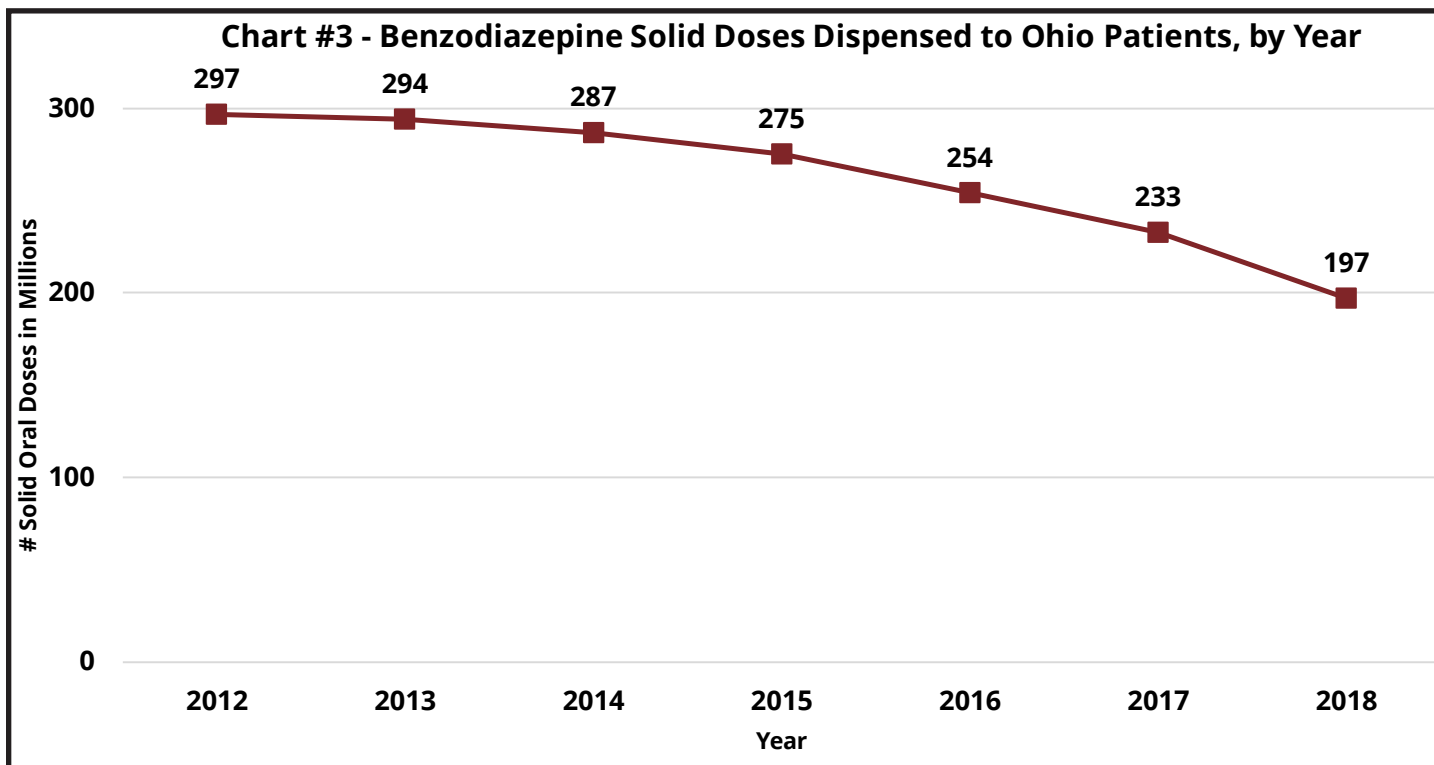
WHAT IS THE DIFFERENCE BETWEEN DISPENSING AND PERSONALLY FURNISHING?

Dispensing is defined by law as the distribution of drugs by a pharmacist pursuant to a valid prescription from a prescriber. Personally furnishing is defined as the distribution of drugs by a prescriber to the prescriber's patients for use outside the prescriber's practice setting. Except in a limited number of circumstances, prescribers are not permitted to personally furnish a controlled substance in excess of a seventy-two-hour supply (ORC 4729.291 - Effective May 20, 2011).

Ohio prescribers who personally furnish controlled substances or gabapentin from their offices are required to report those medications to OARRS within 24 hours (ORC 4729.79). This also includes any samples.

Section 3: Benzodiazepines Dispensed to Ohio Patients

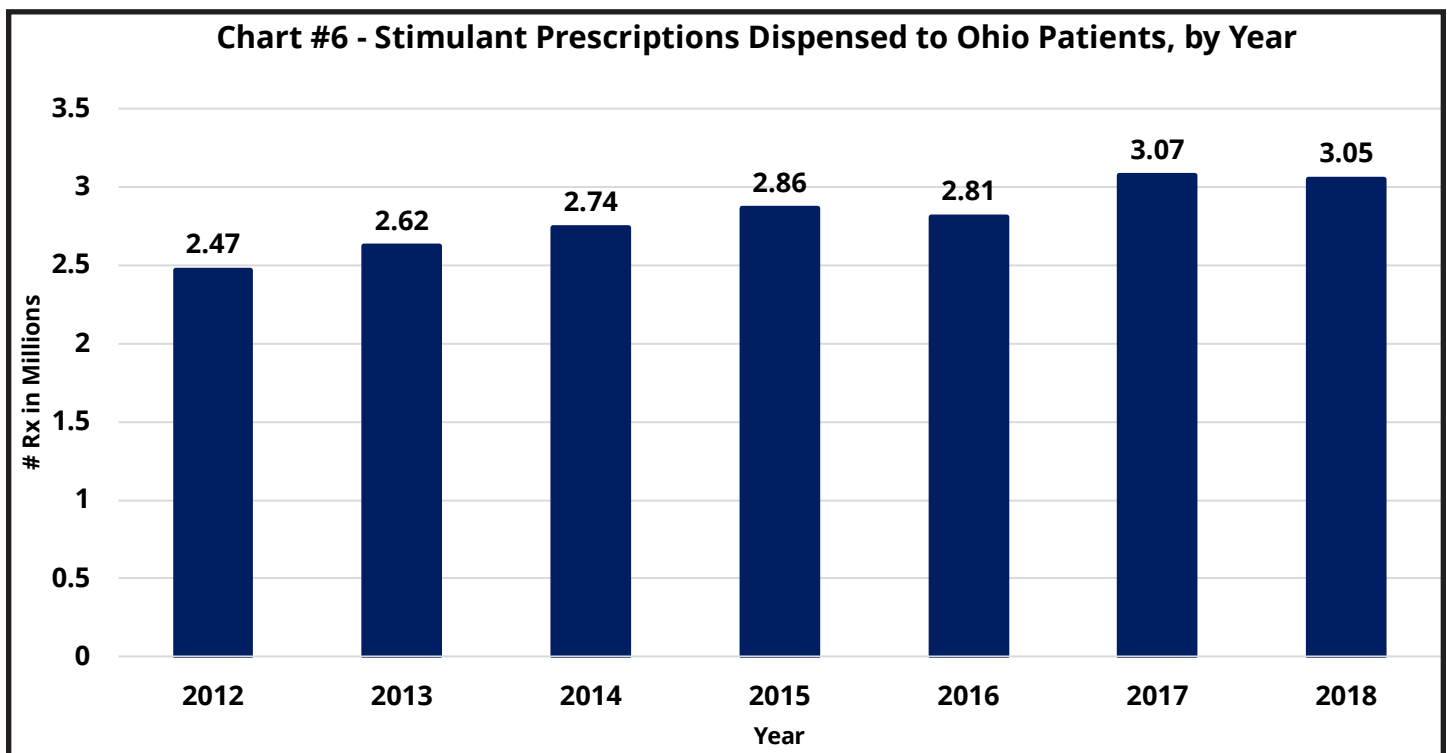
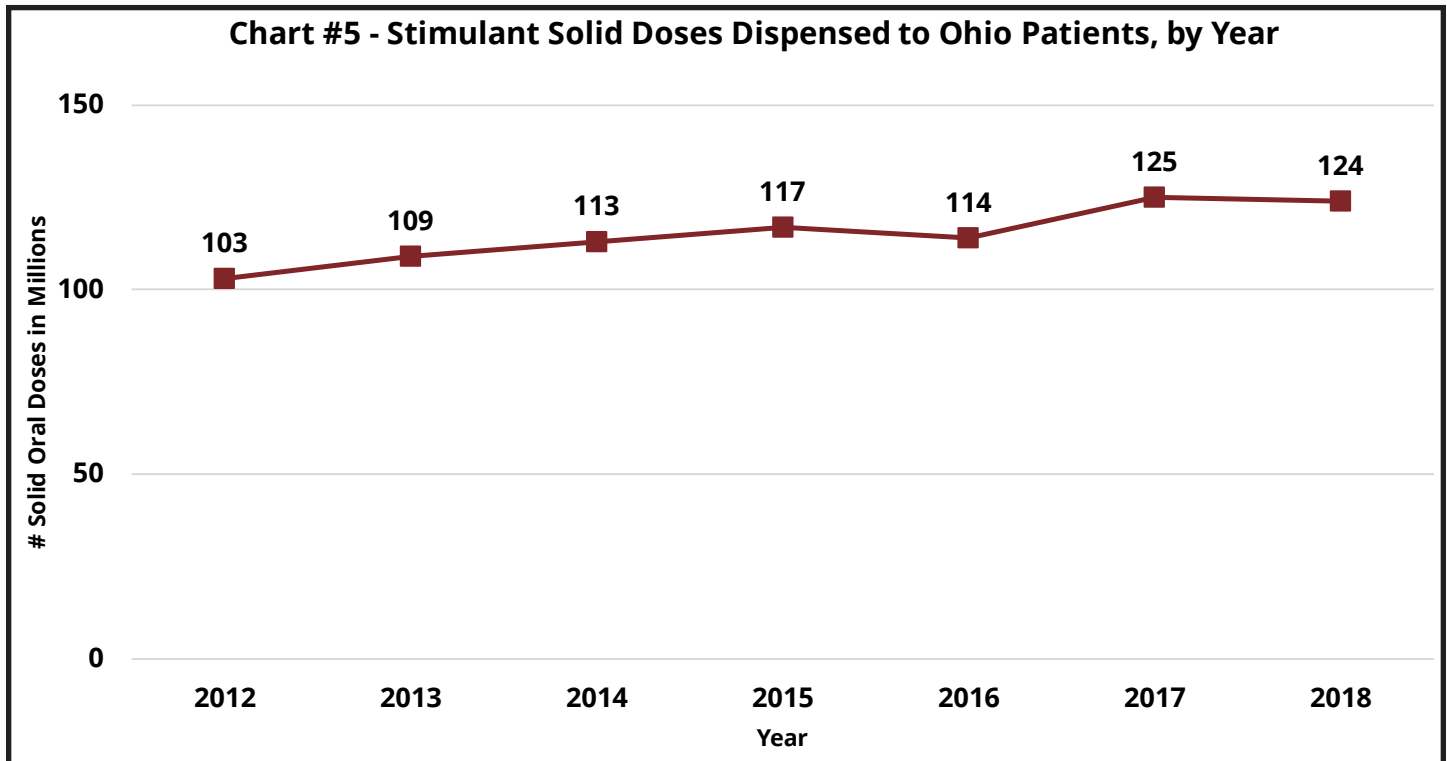
In 2018, the number of benzodiazepine doses* and prescriptions dispensed to Ohio patients continued to decrease. Total doses of benzodiazepines decreased from a high of 297 million in 2012 to 197 million in 2018, a 34 percent decrease (Chart #3). The total number of benzodiazepine prescriptions decreased by 1.43 million between 2012 and 2018, a 29 percent decrease (Chart #4).



*Solid dosage units only (eg. tablets, capsules and patches). Liquids and powders are not included.

Section 4: Controlled Substance Stimulants Dispensed to Ohio Patients

In 2018, the number of stimulant doses* and prescriptions dispensed to Ohio patients decreased as compared to 2017. However, the total doses of stimulants increased by 20 percent between 2012 and 2018 (Chart #5). The total number of stimulant prescriptions also increased by 578,461 between 2012 and 2018, a 24 percent increase (Chart #6).



*Solid dosage units only (eg. tablets, capsules and patches). Liquids and powders are not included.

Section 5: OARRS Usage and Doctor Shoppers

The number of patient queries in OARRS increased from 1.78 million in 2011 to 142.50 million in 2018, an increase of more than 7,900 percent (see Chart #7). Conversely, the number of individuals who see multiple prescribers in order to obtain controlled substances illicitly (commonly referred to as “doctor shopping”) decreased from 2,205 in 2011 to 239 in 2018, a decrease of 89 percent (see Chart #8).

Chart #7 - OARRS Queries, by Year

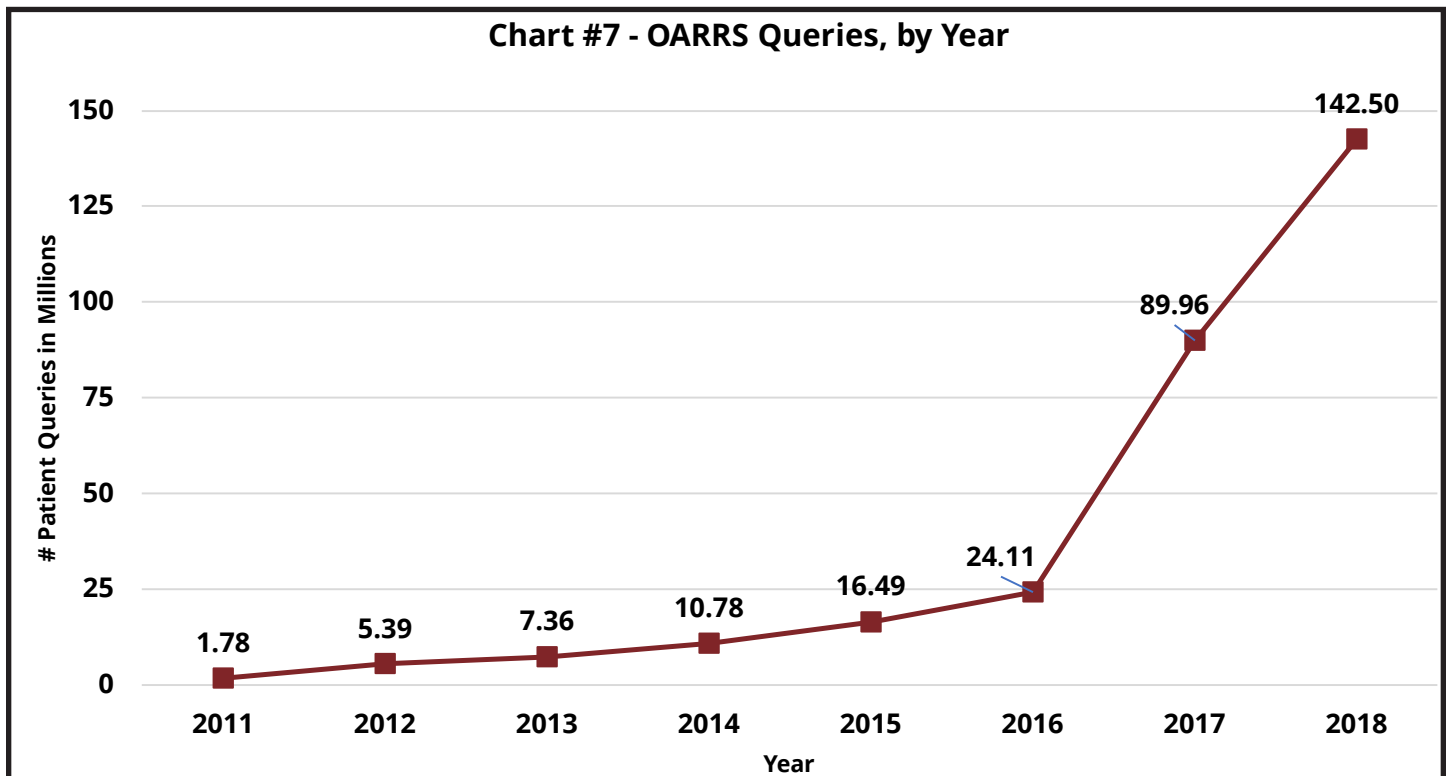
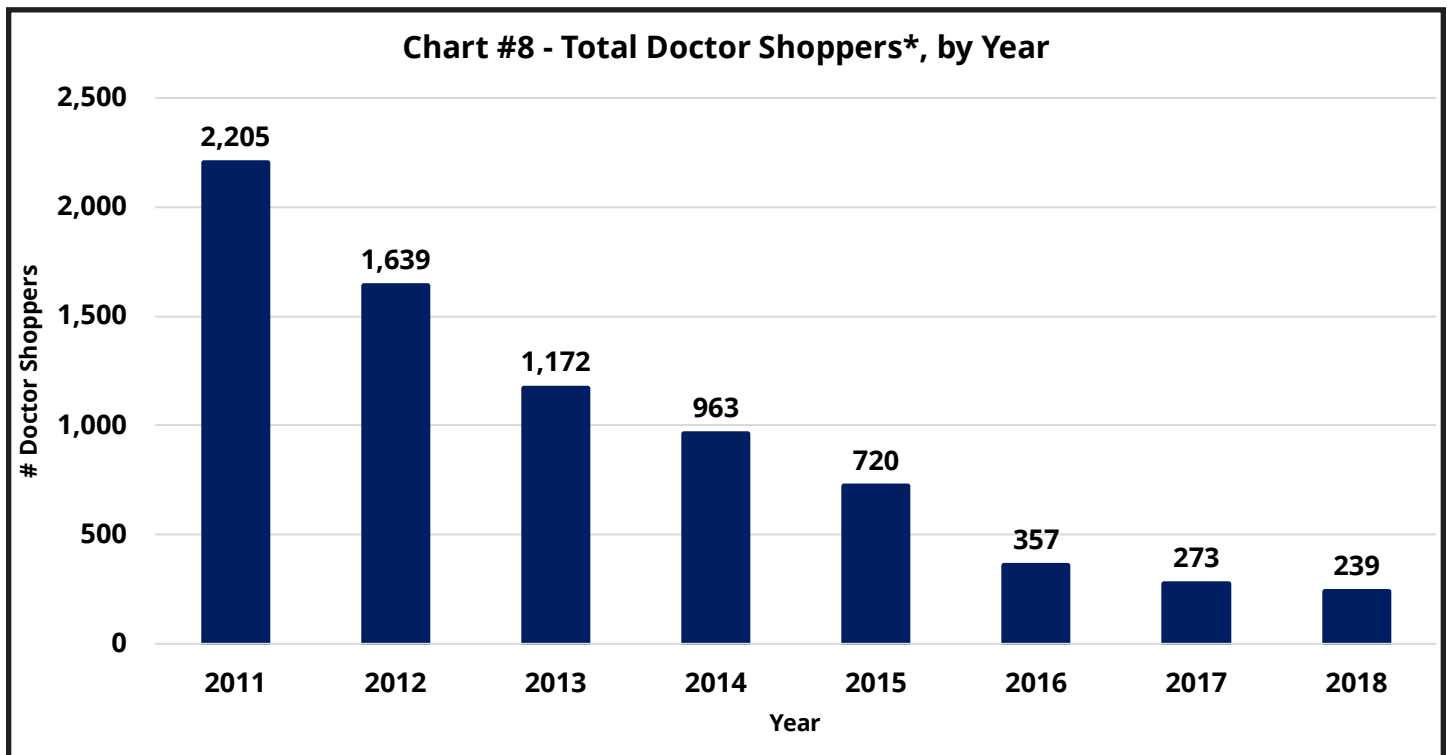


Chart #8 - Total Doctor Shoppers*, by Year



*In this chart, a doctor shopper is defined as an individual receiving a prescription for a controlled substance from five or more prescribers in one calendar month.

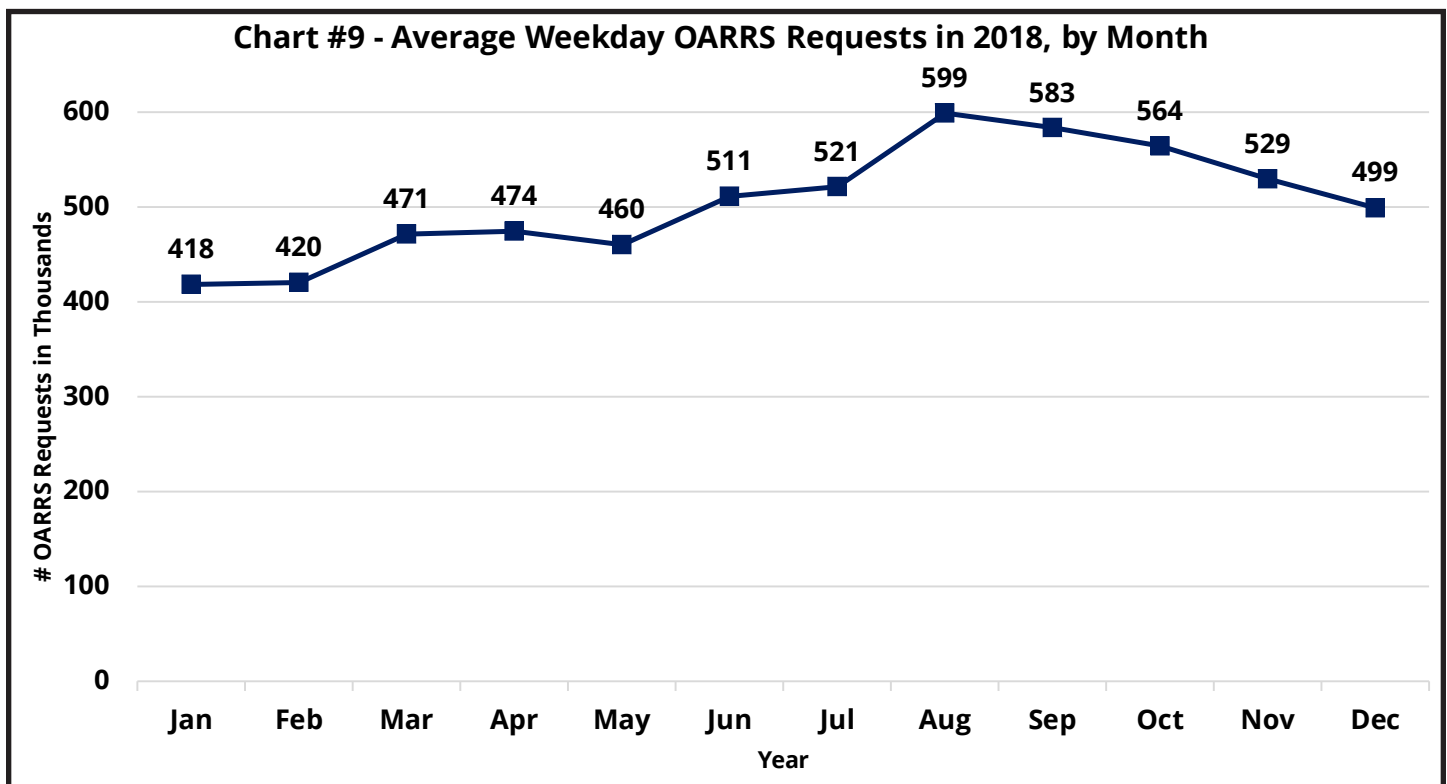
Section 6: OARRS Integration

In October 2015, Ohio became the first state in the country to offer statewide integration directly into electronic medical records and pharmacy dispensing systems. As a result of this initiative, more than 41,000 Ohio prescribers and pharmacists were able to immediately access OARRS within their clinical workflow in 2018 (see Table #3).

Table #3 - Ohio OARRS Users with Integrated Access in 2018, by User Type

User Type	Integrated Access
Prescriber	36,900
Pharmacist	4,162
Total	41,062

Integration has dramatically increased the average number of daily OARRS requests by healthcare providers. In 2018, the average number of OARRS requests per weekday exceeded 500,000 for the first time on record (see Chart #9).



REQUIRED USE OF OARRS

Ohio laws and rules require the use of OARRS by prescribers and pharmacists. For more information on the requirements for checking OARRS, visit: www.pharmacy.ohio.gov/check.

Section 7: Biennial Report

Pursuant to section 4729.85 of the Revised Code, the State of Ohio Board of Pharmacy submits the following biennial report that includes all of the following:

(1) The cost to the state of establishing and maintaining OARRS:

Chart #10 - OARRS Operating Costs, FY 2017

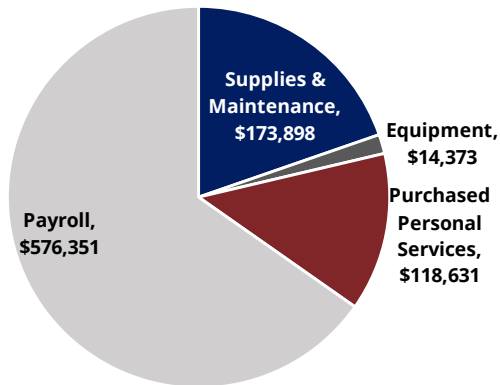
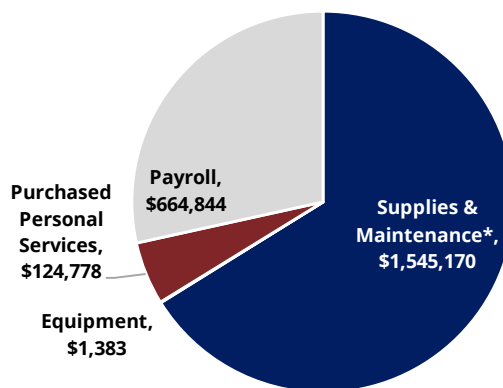


Chart #11 - OARRS Operating Costs, FY 2018



*Includes OARRS integration costs.

(2) The board's effectiveness in providing information from the database:

In 2018, OARRS automatically responded to 99.5% of the user requests for OARRS reports. The remaining reports (a half of a percent) required manual processing by Board of Pharmacy staff.

(3) The board's timeliness in transmitting information from the database:

In 2018, the average processing time to transmit an OARRS patient report was 0.1593 seconds.



The State of Ohio Board of Pharmacy is committed to protecting the health and safety of all Ohioans through the administration and enforcement of laws governing the legal distribution of dangerous drugs and the practice of pharmacy. Should you need any assistance or additional information, please do not hesitate to contact the Board.

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