



OHIO AUTOMATED RX REPORTING SYSTEM

2019 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 State of Ohio Board of Pharmacy created Ohio's Prescription Drug Monitoring Program (PDMP), 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, manufacturers, and other distributors 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 dangerous drugs 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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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 2019 Ohio Automated Rx Reporting System (OARRS) Annual Report. As indicated in this report, Ohio continues to make important advances in the safe prescribing of opioids and benzodiazepines.

OARRS is essential in combatting prescription drug misuse and abuse. Use of the system continues to reach record levels due to the Board's efforts to promote the integration of OARRS into electronic health records and pharmacy dispensing systems. As a result of the Board's efforts, more than 48,000 healthcare providers can access important patient data with the click of a button.

Integration also led to OARRS continuing to break records for use by clinicians. In October 2019, the average daily number of patient requests per month exceeded one million for the first time on record. This figure demonstrates the Board's ongoing commitment to ensuring easy access to vital data to help Ohio prescribers and pharmacists better care for their patients.

In addition to the record use of OARRS, highlights from the 2019 Annual Report include:

- **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 415 million in 2019, a 48 percent decrease. The total number of opioid prescriptions decreased by 5 million between 2012 and 2019, a 40 percent decrease.
- **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 181 million in 2019, a 39 percent decrease. The total number of benzodiazepine prescriptions decreased by 1.6 million between 2012 and 2019, a 33 percent decrease.
- While 2019 saw a slight increase in the number of individuals engaged in doctor shopping behavior compared to 2018 (255 in 2019 vs. 239 in 2018), the figure still represents an 88 percent decrease compared to the peak of 2,205 individuals in 2011.

On behalf of the members of the State of Ohio Board of Pharmacy, I would like to express our gratitude 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 cursive script that reads "Steven W. Schierholt".

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

Section 1: Opioids Dispensed to Ohio Patients

In 2019, 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 415 million in 2019, a 48 percent decrease (Chart #1). The total number of opioid prescriptions decreased by 5 million between 2012 and 2019, a 40 percent decrease (Chart #2).

Chart #1 - Opioid Solid Doses Dispensed to Ohio Patients, by Year

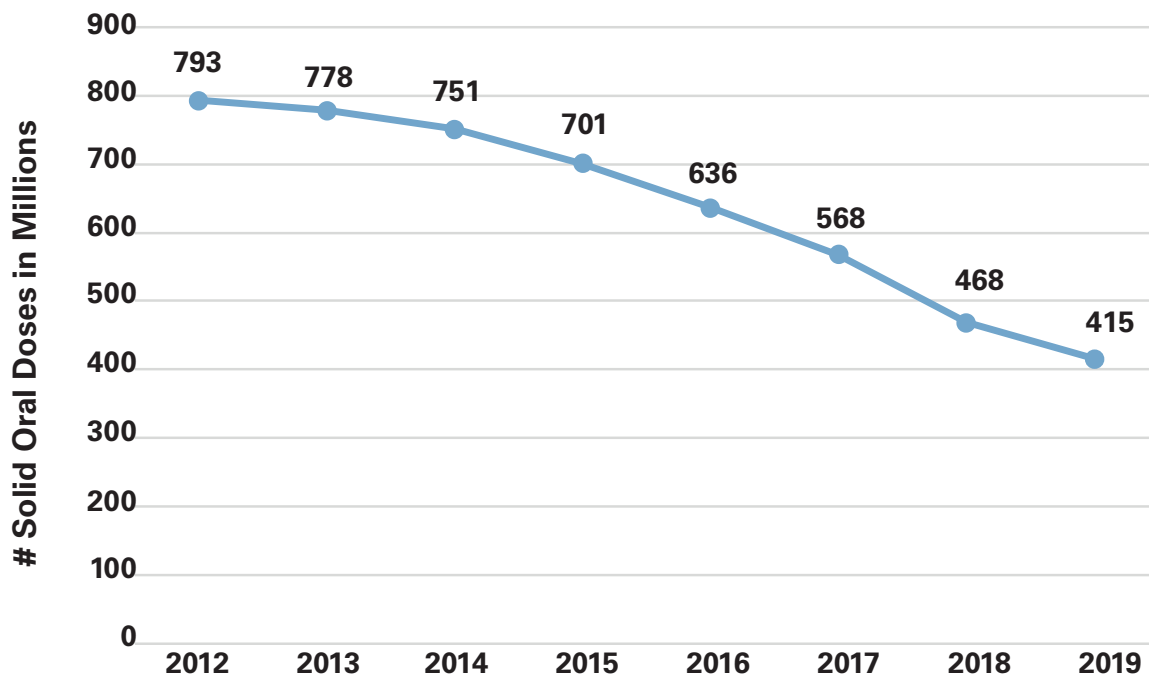
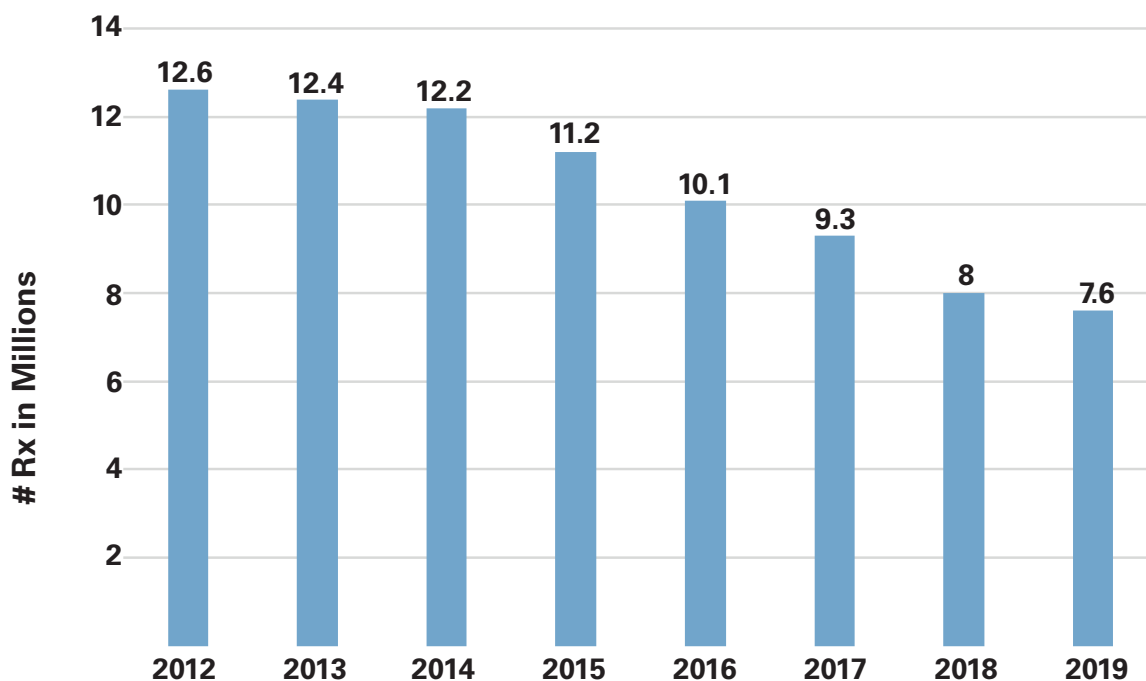


Chart #2 - Opioid Prescriptions Dispensed to Ohio Patients, by Year



*Solid dosage units only (i.e. 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
2019	53,622	1,706,059	61.19	42.37

*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 must also comply with rules on prescribing opioids for the treatment of long-term pain (lasting 12 weeks or more) and subacute pain (lasting between six and 12 weeks). The rules establish MED check points to ensure appropriate prescribing. For more information on prescribing for chronic and subacute pain, 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
2019	18	547	13.39	17.44

*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. 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).

Except for veterinarians, 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 2019, 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 181 million in 2019, a 39 percent decrease (Chart #3). The total number of benzodiazepine prescriptions decreased by 1.6 million between 2012 and 2019, a 33 percent decrease (Chart #4).

Chart #3 - Benzodiazepine Solid Doses Dispensed to Ohio Patients, by Year

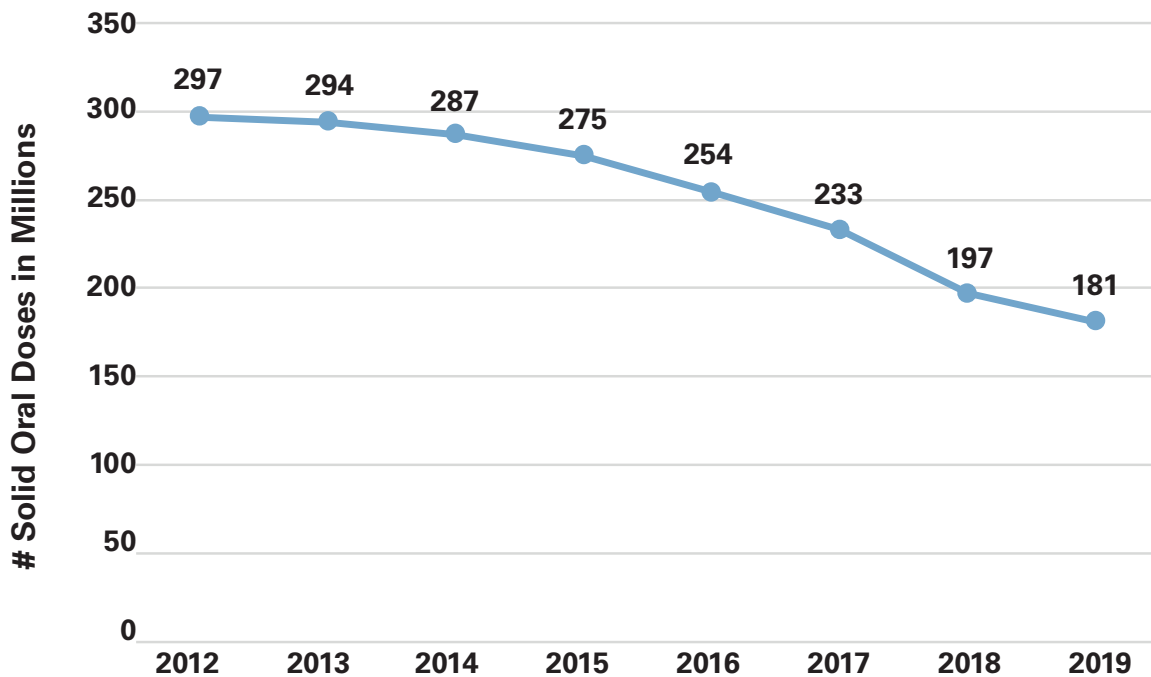
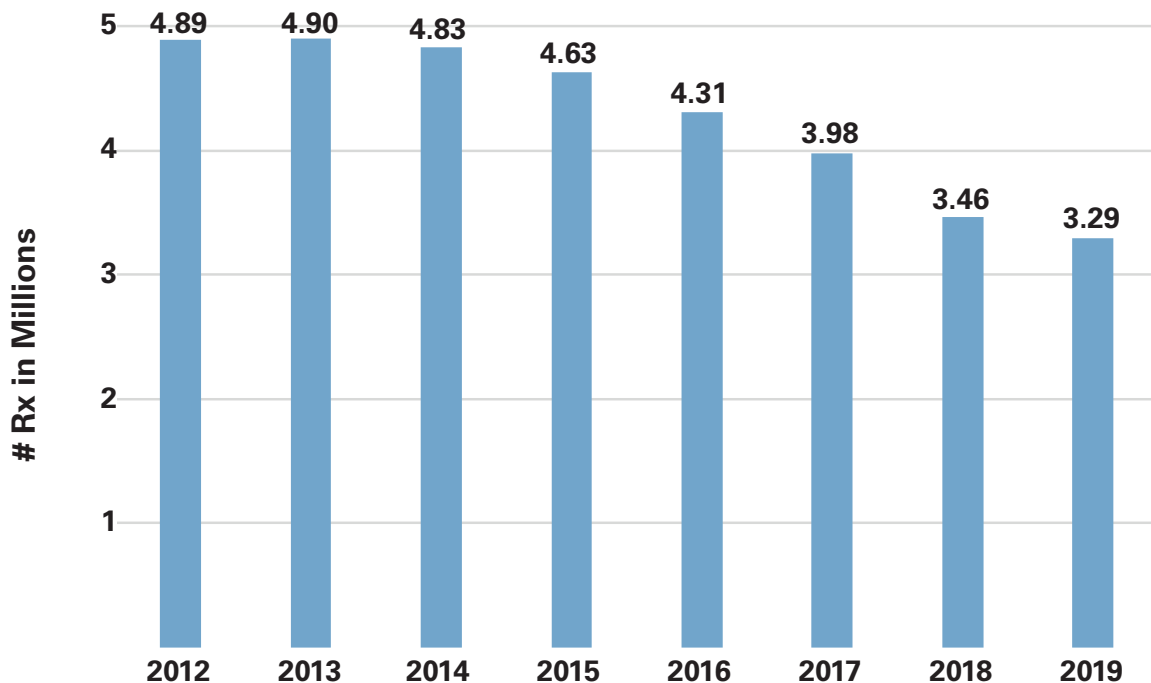


Chart #4 - Benzodiazepine Prescriptions Dispensed to Ohio Patients, by Year



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

Section 4: Controlled Substance Stimulants Dispensed to Ohio Patients

In 2019, the number of stimulant doses* dispensed to Ohio patients slightly increased compared to 2018 (Chart #5). Total doses of stimulant prescriptions have continued to increase since 2012 but have generally remained stable since 2017. The total number of stimulant prescriptions also increased by 30 percent between 2012 and 2019 (Chart #6).

Chart #5 - Stimulant Solid Doses Dispensed to Ohio Patients, by Year

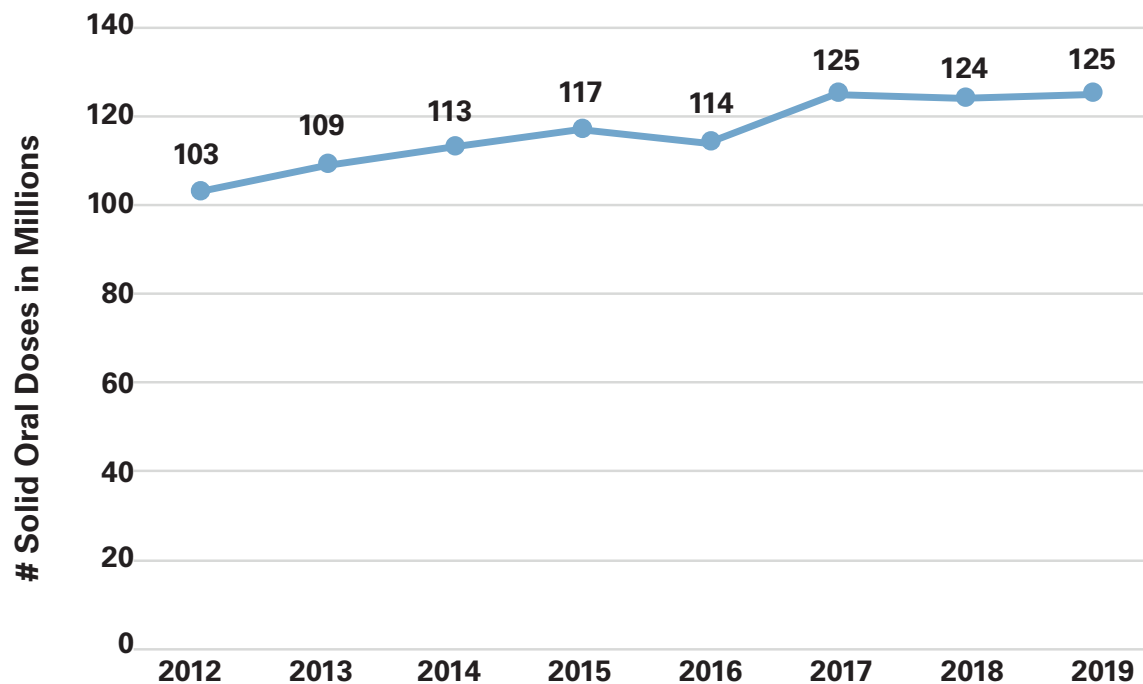
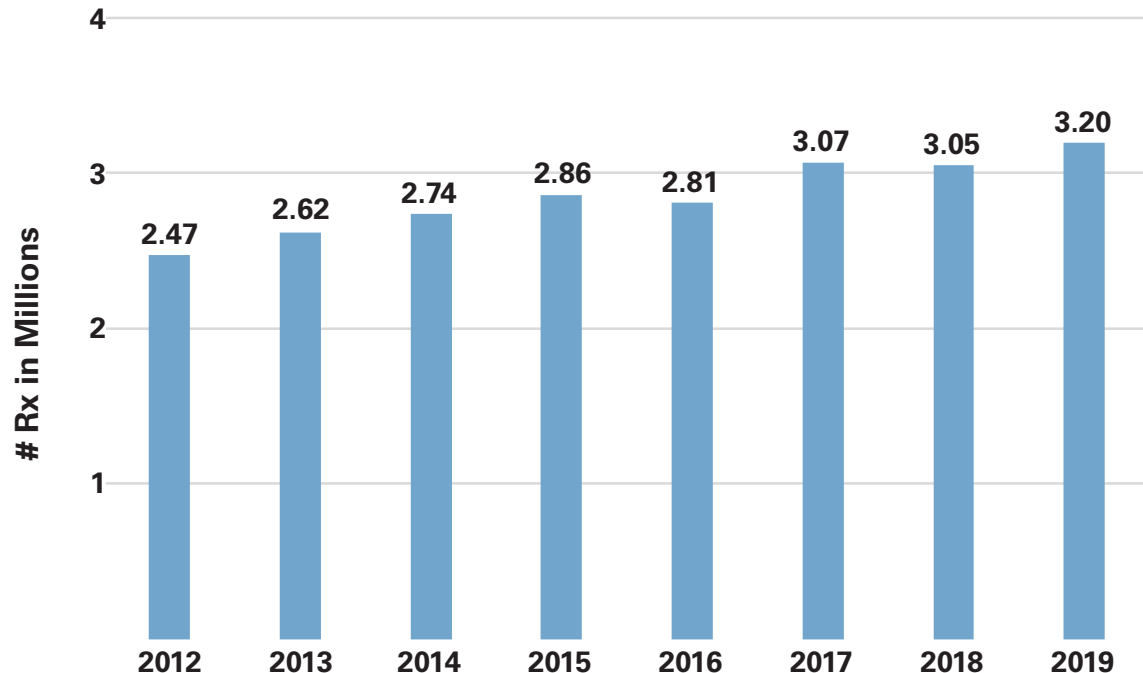


Chart #6 - Stimulant Prescriptions Dispensed to Ohio Patients, by Year



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

Section 5: Naltrexone Products Dispensed or Personally Furnished to Ohio Patients

Starting March 19, 2019, naltrexone products that are indicated for the treatment of alcohol dependence or the prevention of relapse for opioid dependence are required to be reported to OARRS.

Pursuant to section 4729.85 of the Revised Code, the Board is required to report the following aggregate information on naltrexone:

- The number of prescribers who issued a prescription for or personally furnished the drug (see Table #3);
- The number of patients to whom the drug was dispensed or personally furnished (see Table #3);
- The average quantity of the drug dispensed per prescription or furnished at one time (see Table #4).

Table #3 - Naltrexone Dispensing or Personally Furnishing*, 2019

Number of prescribers who issued a prescription or personally furnished the drug	4,367
Number of patients to whom the drug was dispensed or personally furnished	19,600

Table #4 - Average Quantity of Naltrexone Dispensed or Personally Furnished*⁺, 2019

Average quantity of the drug dispensed per prescription or furnished at one time (50mg tablets)	29
Average quantity of the drug dispensed per prescription or furnished at one time (mg extended-release powder)	381

*Federal patient privacy rules prohibit the reporting of drugs used to treat substance use disorder that are personally furnished by prescribers to OARRS. The figures listed represent naltrexone dispensed by pharmacies to Ohio patients.

⁺In 2019, there were three different forms of naltrexone products reported to OARRS. The most common form is 50 mg tablets. There were 40,000 prescriptions. For the other forms, there were 12 prescriptions of immediate-release powder and 27,000 prescriptions for the extended-release powder.

WHAT IS NALTREXONE AND WHY IS THIS INFORMATION COLLECTED?

According to the Substance Abuse and Mental Health Services Administration, naltrexone is a medication approved by the Food and Drug Administration to treat opioid use disorders and alcohol use disorders. It comes in a pill form or as an injectable. The pill form of naltrexone (ReVia, Depade) can be taken at 50 mg once per day. The injectable extended-release form of the drug (Vivitrol) is administered at 380 mg once a month.

The collection of naltrexone information is intended to assist prescribers and pharmacists in identifying individuals who may be receiving treatment for substance use disorder. This information can be useful for healthcare providers who are considering the use of controlled substances to treat patients.

Section 6: OARRS Usage and Doctor Shoppers

The number of patient queries in OARRS increased from 1.78 million in 2011 to more than 240 million in 2019, an increase of more than 13,000 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 a high of 2,205 in 2011 to 255 in 2019, a decrease of 88 percent (see Chart #8).

Chart #7 - OARRS Queries, by Year

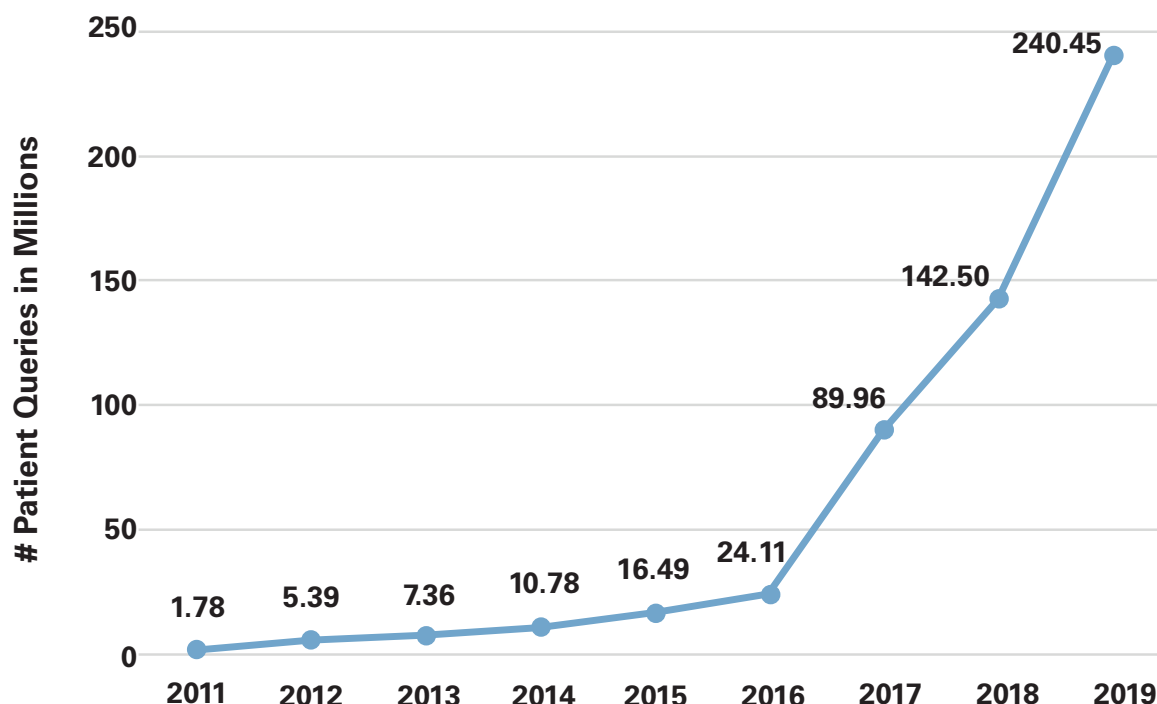
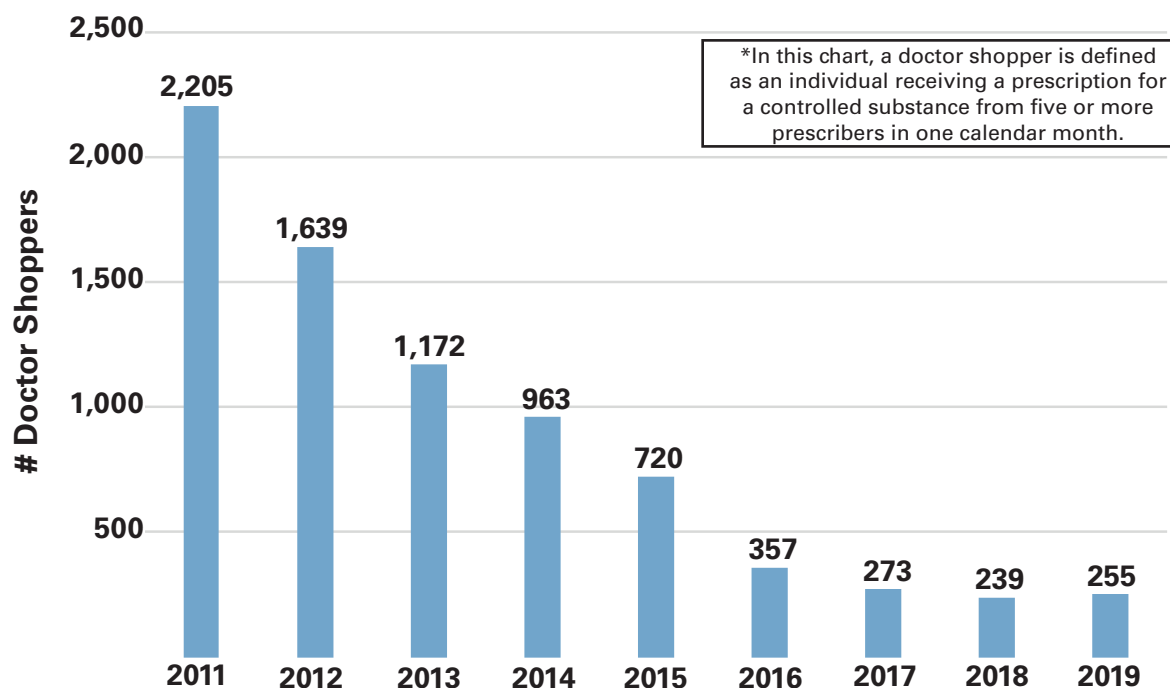


Chart #8 - Total Doctor Shoppers*, by Year



Section 7: OARRS Integration

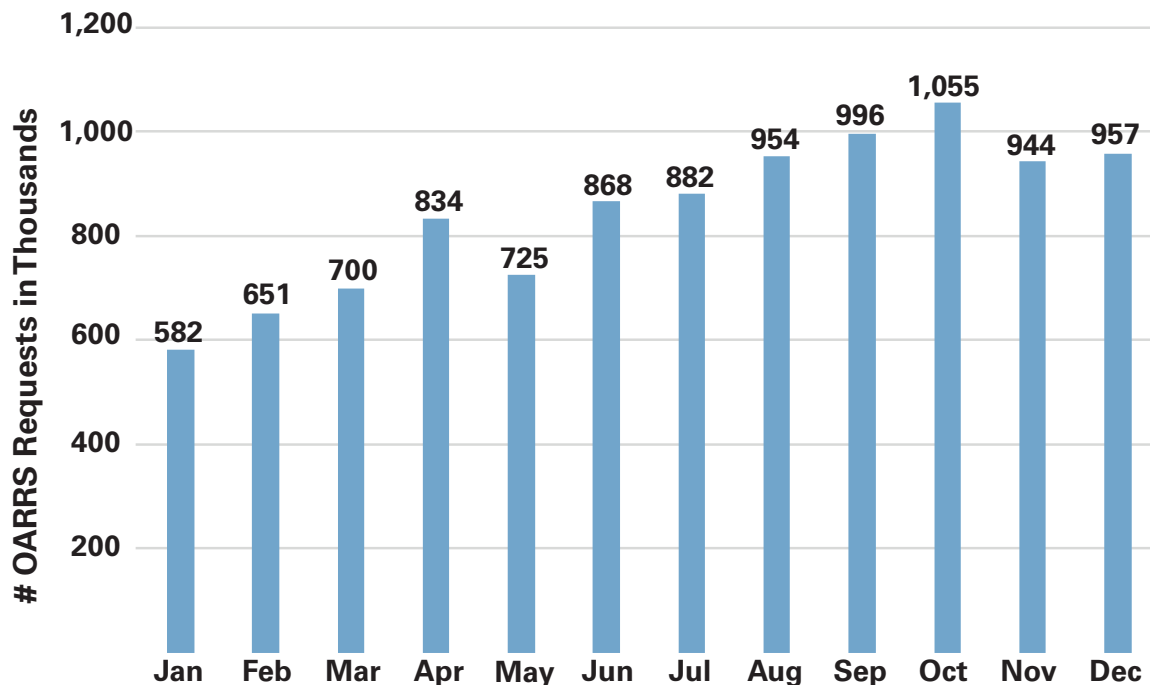
In October 2015, Ohio became the first state in the country to offer statewide integration directly into electronic medical records and pharmacy dispensing systems. As a result of this initiative, more than 48,000 Ohio prescribers and pharmacists were able to immediately access OARRS within their clinical workflow in 2019 (see Table #5).

Table #5 - Ohio OARRS Users with Integrated Access in 2019, by User Type

User Type	Integrated Access
Prescriber	43,369
Pharmacist	5,590
Total	48,959

Integration has dramatically increased the average number of daily OARRS requests by healthcare providers. In 2019, the average number of OARRS requests per weekday exceeded one million for the first time on record (see Chart #9).

Chart #9 - Average Weekday OARRS Requests in 2019, by Month



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 8: 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, SFY 2018

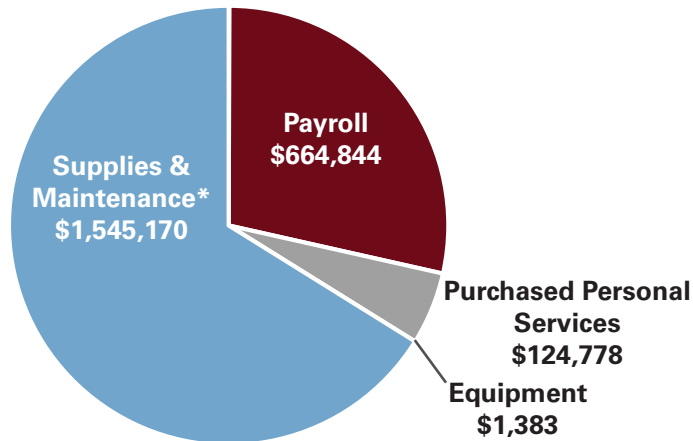
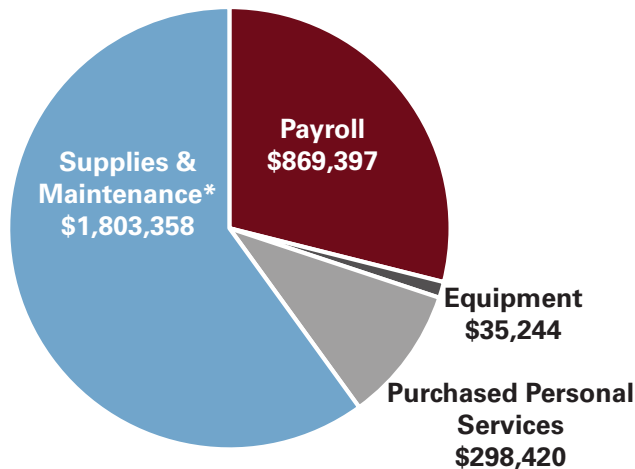


Chart #11 - OARRS Operating Costs, SFY 2019



*Includes OARRS integration costs.

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

In 2019, OARRS automatically responded to 99.64% of the user requests for OARRS reports. The remaining reports (less than 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 2019, the average processing time for an OARRS patient report was 1.3561 seconds.



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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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