



OHIO AUTOMATED RX REPORTING SYSTEM

2017 ANNUAL REPORT



**STATE OF
OHIO**
BOARD OF PHARMACY

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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 one non-controlled substance (gabapentin) 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 are also required to submit information monthly on all controlled substances and gabapentin sold to an Ohio licensed pharmacy or prescriber.

OARRS is a tool that can be used to address prescription drug diversion and abuse. It serves multiple functions as a patient care tool, an early warning system for drug epidemics, and an investigative tool for drug diversion and insurance fraud. 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 health care 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 and to assist law enforcement in cases of drug diversion.

Starting in November 2017, Ohio drug court programs have access to OARRS to provide judges and court personnel with critical information regarding a participant's use of controlled substance medications.

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 Board of Optometry, the State Medical Board, and the State Veterinary Medical Licensing Board.



Dear Governor Kasich and Members of the Ohio General Assembly,

I am pleased to provide the 2017 Ohio Automated Rx Reporting System (OARRS) Annual Report. This report demonstrates that Ohio has one of the most comprehensive and robust responses to the opioid epidemic in the country. A principal component of this response are initiatives to reduce the overprescribing and diversion of opioids and other controlled substances, including enhancements to OARRS, development of prescribing guidelines and rules, shutting down pill mills and taking enforcement action against rogue prescribers and pharmacies.

The state's progress to address the supply of these potentially addictive medications can be seen in the following highlights from this report:

- The total doses of opioids dispensed to Ohio patients decreased by 225 million doses (or 28.4 percent) from 2012 to 2017 (see Section 1).
- The total doses of benzodiazepines (common brand names include: Valium®, Xanax®, and Ativan®) dispensed to Ohio patients decreased by 64 million doses (or 21.5 percent) between 2012 to 2017 (see Section 3).
- The number of queries for patient information in OARRS has increased from 1.78 million in 2011 to 88.96 million (or 4,900 percent) in 2017 (see Section 4).
- The number of individuals engaged in doctor shopping behavior decreased from 2,205 in 2011 to 273 (or 88 percent) in 2017 (see Section 4).
- Initial data also suggests that Ohio's new rules for the prescribing of opioid analgesics to treat acute pain are having an impact on prescribing habits (see Section 6).

It is important to remember that stemming the distribution of controlled substance medications is vital to reducing overdose deaths. An analysis of the Ohioans that died of a drug overdose in 2016 found that 80 percent had a history of receiving a prescription for a controlled substance in OARRS. By reducing exposure to prescription opioids and other medications, we can prevent prescription drug misuse and abuse that often leads to fatal overdoses from illicit drugs such as heroin or fentanyl.

In addition to the promising statistics featured in this report, the Board made considerable progress in promoting the integration of OARRS into electronic health records and pharmacy dispensing systems. In 2017, our staff completed integration with a number of health systems, pharmacies and prescriber offices. As a result of these efforts, nearly 20,000 pharmacists and prescribers have direct access to OARRS as part of their workflow.



2017 also saw important system upgrades aimed at providing Ohio healthcare providers with advanced analytics and tools to promote patient safety and assist in clinical decision-making. On November 20, 2017, Ohio became the first state in the nation to upgrade to Appriss Health's NarxCare® platform. NarxCare offers several key features, including scores that calculate a patient's possible risk of overdose and addiction, red flags to alert providers of a potential patient safety issue, interactive visualization of prescription data and the ability to search for local addiction treatment providers.

The Board is also working to educate the prescriber community on the importance of using OARRS through its active participation in the Ohio Department of Health's Take Charge Ohio Campaign. This important initiative seeks to empower safe pain management and medication use by educating patients and providing resources for healthcare providers. For more information on Take Charge Ohio, visit: www.takechargeohio.org.

Looking forward to 2018, the Board of Pharmacy plans to continue its efforts to ensure OARRS remains one of the leading prescription monitoring programs in the country. This includes new features, educational resources and the inclusion of additional data to promote better patient outcomes.

On behalf of the members of the State of Ohio Board of Pharmacy, I thank you for your leadership and 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,



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

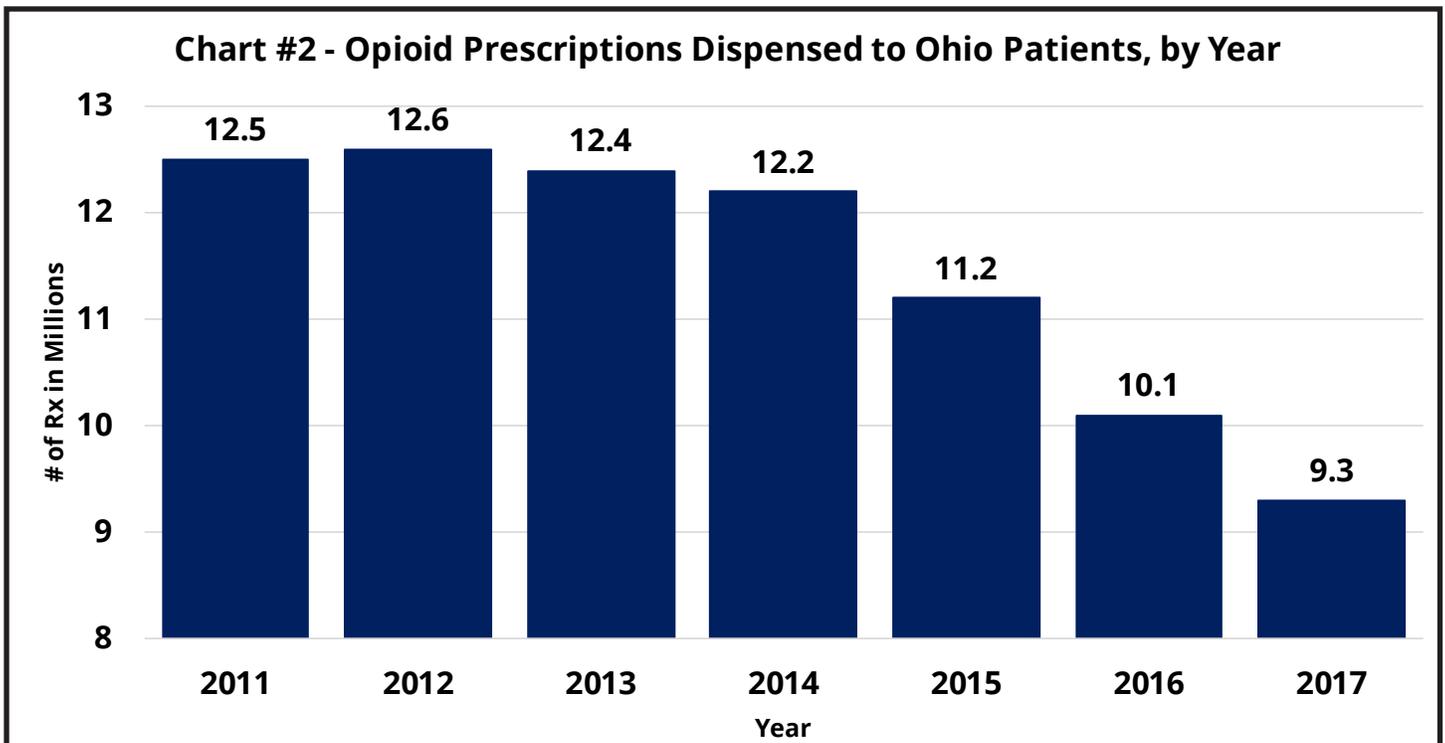
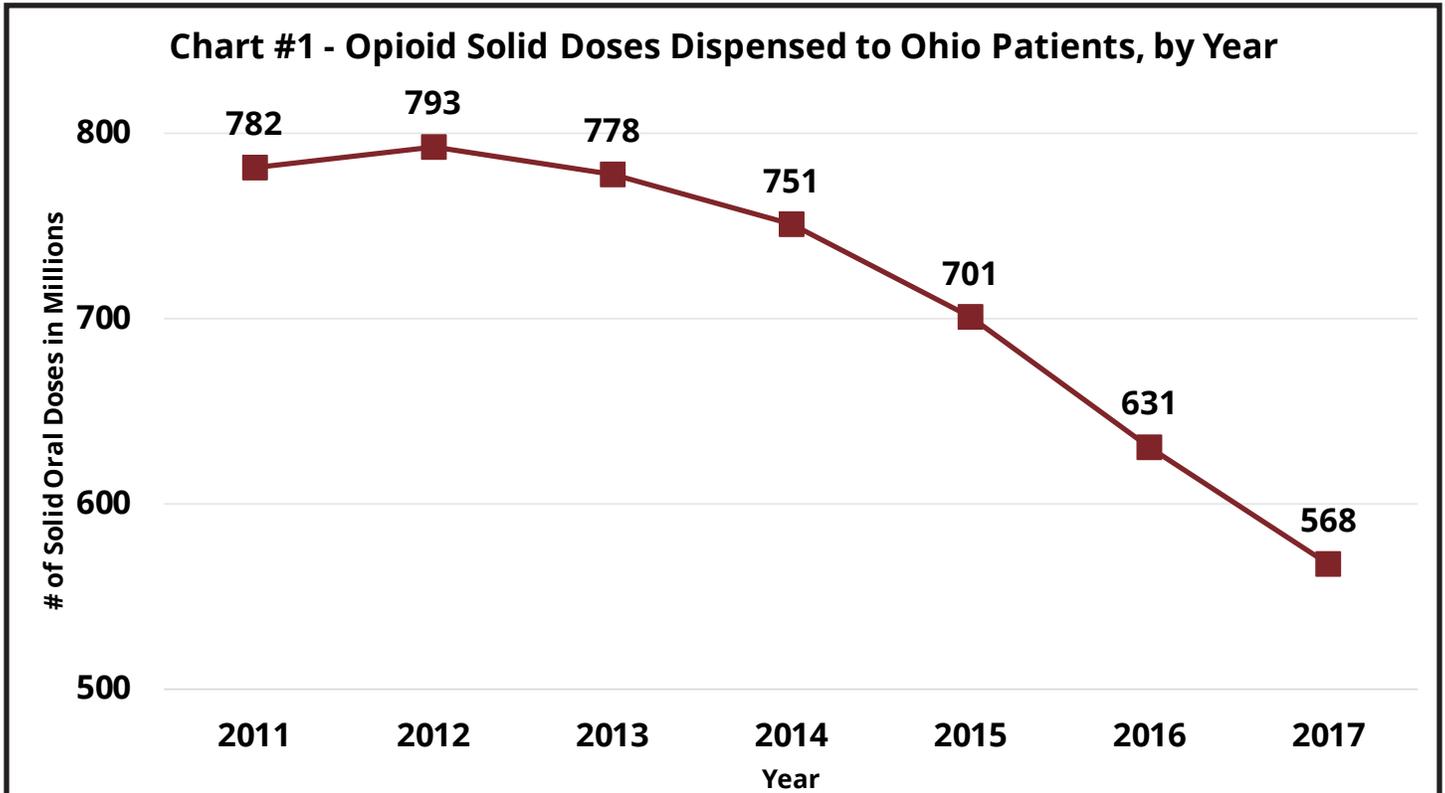


**Get the tools to
educate patients
on safe medication
practices.**

Get Educated Today

Section 1: Opioids Dispensed to Ohio Patients

In 2017, 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 568 million in 2017, a 28.4 percent decrease (Chart #1). The total number of opioid prescriptions decreased by 3.3 million between 2012 and 2017, a 26.2 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

*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).

The **Ohio Guidelines for Prescribing Opioids for the Treatment of Chronic, Non-Terminal Pain** use an 80 mg morphine equivalent dose (MED) as a “trigger threshold,” as the odds of an overdose are higher above that dose. The guidelines are intended to help health care providers review and assess their approach in the prescribing of opioids to treat chronic pain. The guidelines can be accessed by visiting: www.opioidprescribing.ohio.gov.

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.

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

*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.

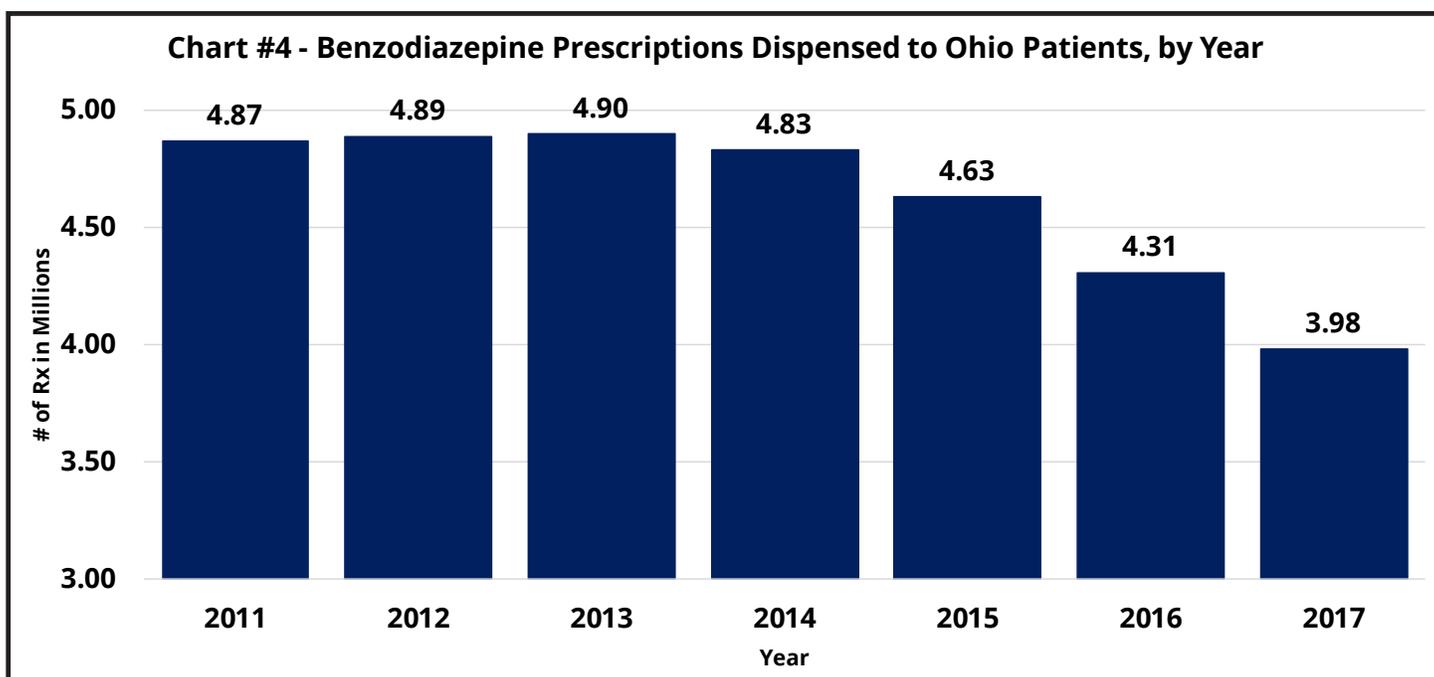
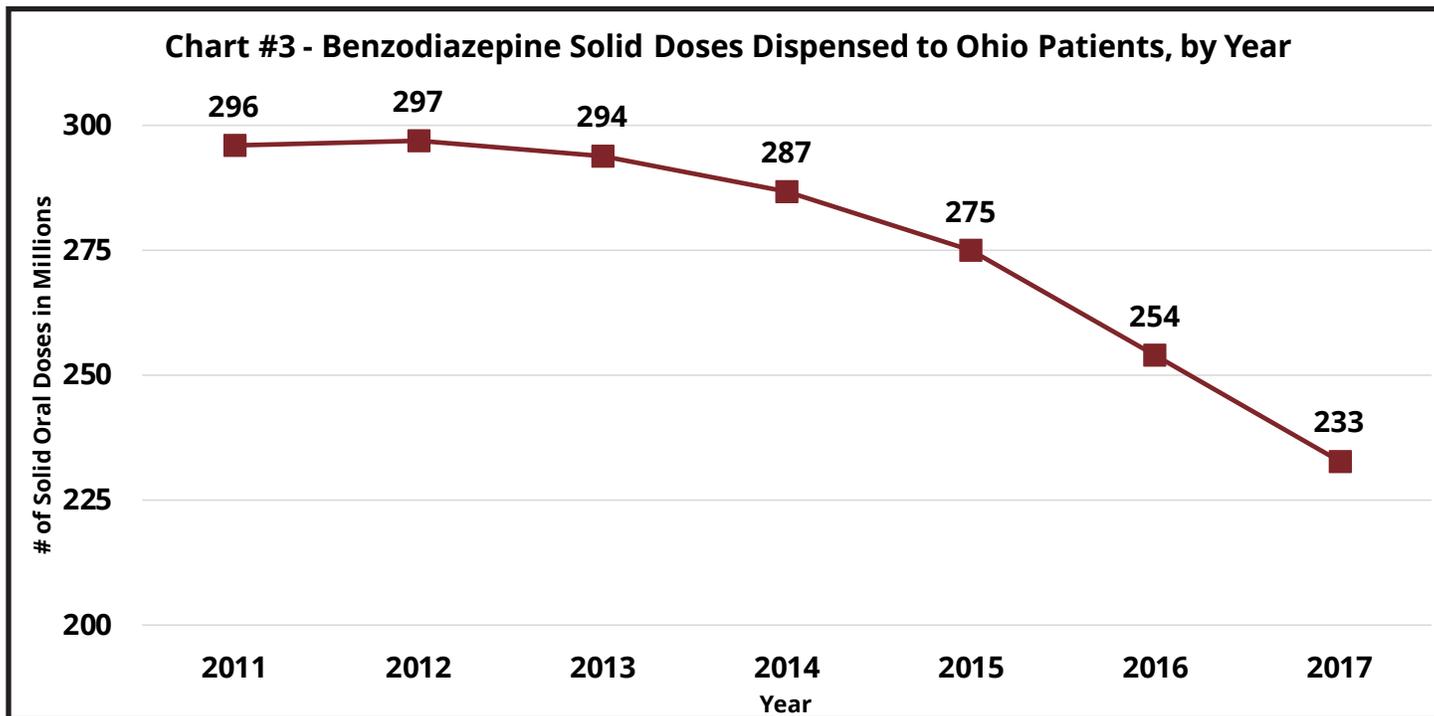
WHAT IS THE DIFFERENCE BETWEEN DISPENSING AND PERSONALLY FURNISHING?

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 & OAC 4729-37-07). This also includes any samples.

Section 3: Benzodiazepines Dispensed to Ohio Patients

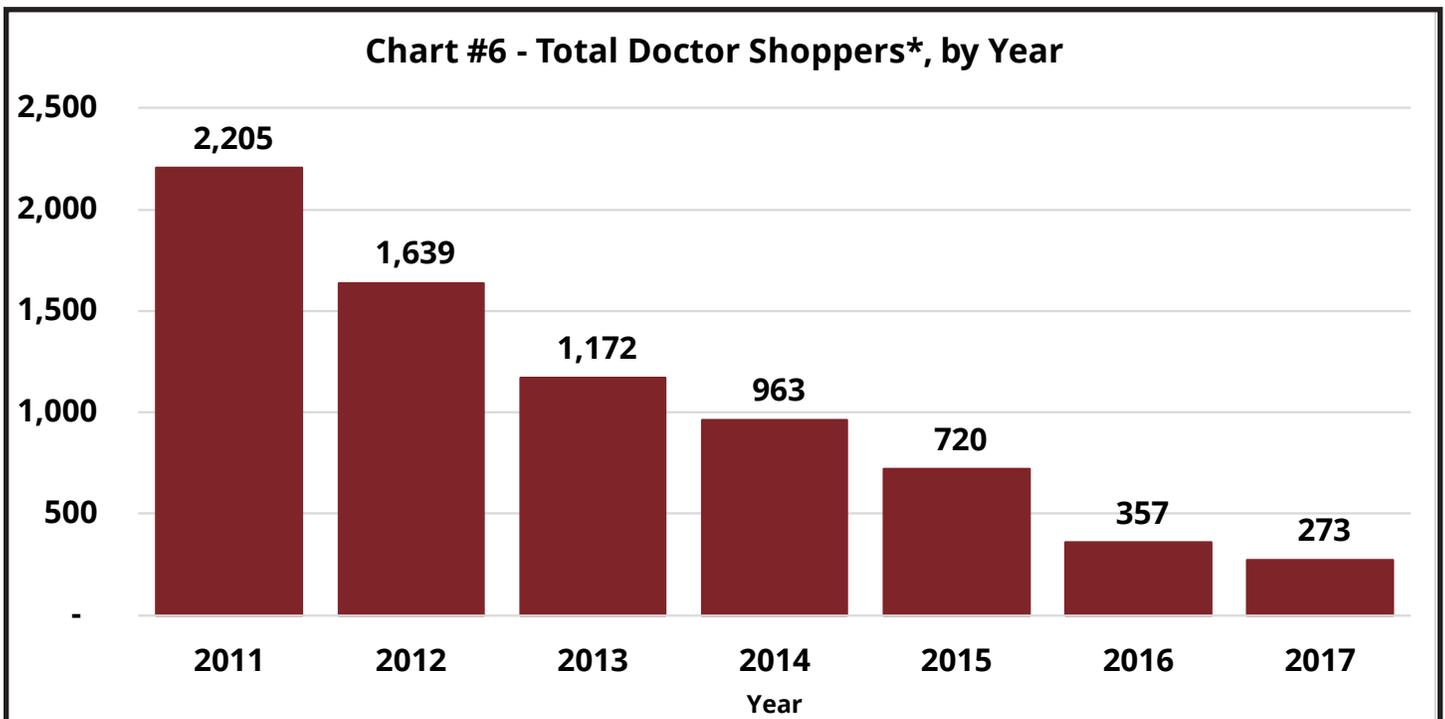
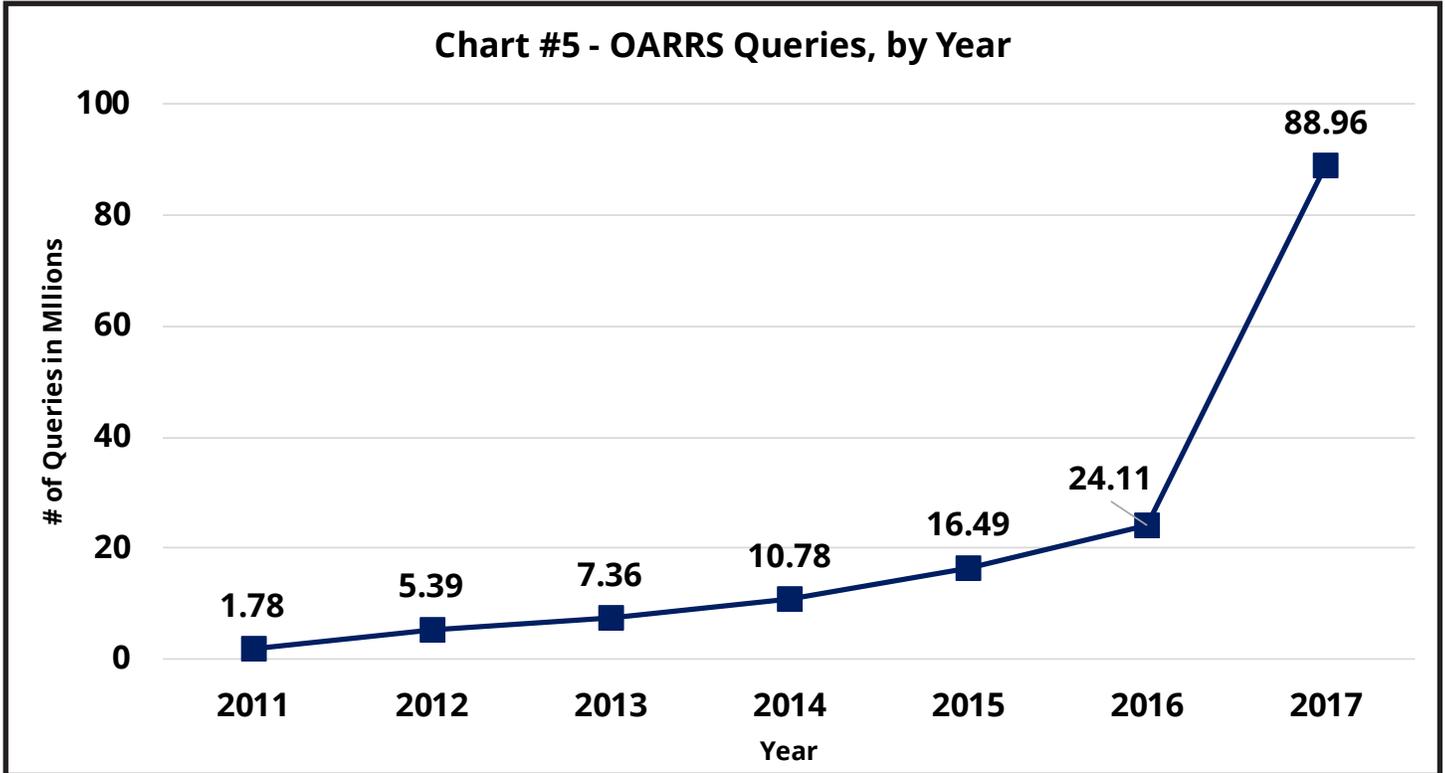
In 2017, the number of benzodiazepine doses* and prescriptions dispensed to Ohio patients continued to decrease. Total doses of benzodiazepines decreased from a high of 297 million in 2012 to 233 million in 2017, a 21.5 percent decrease (Chart #3). The total number of benzodiazepine prescriptions decreased by 910,000 between 2012 and 2017, an 18.6 percent decrease (Chart #4).



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

Section 4: OARRS Usage and Doctor Shoppers

The number of patient queries in OARRS increased from 1.78 million in 2011 to 88.96 million in 2017, an increase of 4,900 percent (see Chart #5). 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 273 in 2017, a decrease of 88 percent (see Chart #6).



*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 5: OARRS Integration

On October 26, 2015, Governor Kasich announced an investment of up to \$1.5 million a year to integrate the Ohio Automated Rx Reporting System (OARRS) directly into electronic medical records and pharmacy dispensing systems across the state, allowing instant access for prescribers and pharmacists.

As a result of this initiative, 19,568 prescribers and pharmacists were able to immediately access OARRS within their clinical workflow by the end of 2017.



Governor John R. Kasich and Board of Pharmacy Executive Director Steven Schierholt at the announcement of Ohio's OARRS integration initiative.

Integration has dramatically increased the number of daily patient requests by healthcare providers. For example, at the start of the initiative, the average number of daily OARRS report requests in October 2015 was 65,559. In December 2017, this number jumped nearly 580 percent to 444,371 requests (see Table 3).

Table #3 - Average Daily OARRS Report Requests in 2017, by Month

Month	Average Daily OARRS Report Requests
January	120,914
February	180,835
March	218,087
April	220,590
May	272,534
June	366,415
July	289,379
August	346,398
September	404,757
October	414,076
November	441,322
December	444,371

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 6: New Rules on Prescription Opioids for Acute Pain

In 2017, the Board of Pharmacy, in collaboration with the State Medical Board of Ohio, Ohio Board of Nursing and the Ohio State Dental Board, established new rules for prescribing opioid analgesics for the treatment of acute pain. The rules went into effect on August 31, 2017 and include the following provisions:

1. No more than seven days of opioids can be prescribed for adults;
2. No more than five days of opioids can be prescribed for minors;
3. Health care providers can prescribe opioids in excess of the day supply limits only if they provide a specific reason in the patient's medical record;
4. Except for certain conditions specified in the rules, the total morphine equivalent dose (MED) of a prescription for acute pain cannot exceed an average of 30 mg MED per day; and
5. The limits do not apply to opioids prescribed for cancer, palliative care, end-of-life/hospice care or medication-assisted treatment for addiction.

For more information on the rules, visit: www.pharmacy.ohio.gov/acutelimits.

While additional data points are necessary to fully assess the overall impact of the new acute pain rules, a snapshot of the fourth quarter data from 2017 (i.e. the only quarter where the rules were fully implemented) suggests that the rules are having an impact on prescribing habits when compared to the fourth quarter of 2016, as indicated by the following metrics (see Table 5):

- An **8.3 percent decrease** in the average days' supply for acute opioid prescriptions;
- An **11.4 percent decrease** in the average number of opioid doses per prescription; and
- A **9 percent decrease** in the average morphine equivalent dose per acute opioid prescription.

Table #5 - Opioids Dispensed for the Treatment of Acute Pain*, by Fourth Quarter#

Fourth Quarter Year	No. Opioid Doses**	No. of Patients***	Average Days' Supply per Prescription	Average Doses** Per Prescription	Average MED Per Prescription
2012	31,238,732	584,309	8.37	36.55	37.50
2013	29,453,850	568,028	8.49	35.50	36.51
2014	27,046,750	550,657	7.95	34.58	36.84
2015	30,717,129	582,504	8.90	37.30	37.06
2016	22,552,799	492,232	7.74	33.39	36.36
2017	16,922,367	425,353	7.10	29.58	33.08

*For the purposes of these metrics, a prescription is considered to be for the management of acute pain if the patient has not been dispensed an opioid prescription in the 90 days prior to the beginning of the given quarter.

**Solid dosage units only (eg. tablets, capsules, patches). Liquids and powders are not included. Buprenorphine used to treat opioid dependence or addiction is also excluded.

***Number of patients receiving at least one opioid prescription for acute pain.

#Fourth quarter includes the months of October, November and December.

Section 7: OARRS Upgrades

On November 20, 2017, Ohio became the first state in the country to upgrade to Appriss Health's NarxCare® platform. The upgrade, provided at no-cost to users, provides Ohio prescribers and pharmacists with advanced analytics and tools to promote patient safety and assist in clinical decision-making. The NarxCare® platform, offers several key features, including:

Scores and Additional Risk Indicators

Narx Scores: Every NarxCare report includes type-specific use scores for narcotics, sedatives, and stimulants. The scores range from 000 to 999, with higher scores equating to higher numbers of prescribers, morphine milligram equivalent (MME), pharmacies, and overlapping prescriptions.

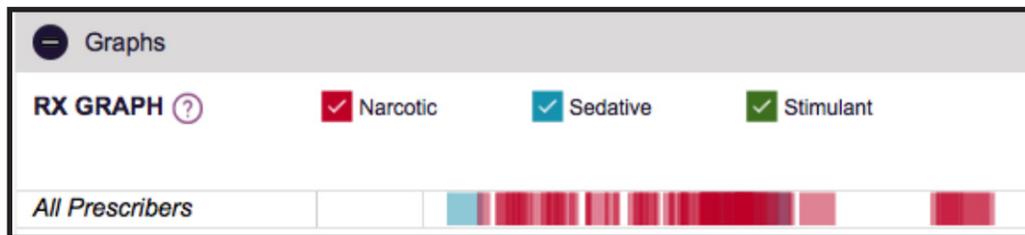
Overdose Risk Score: This risk score ranges from 000-999 with higher scores equating to increased risk of unintentional overdose.

Additional Risk Indicators: These data sources may include OARRS data, claims data, overdose registry data, continuity of care documents, and criminal justice data.



RxGraph

The RxGraph is a key visualization instrument that allows providers to rapidly see important patterns and levels of use.



Medication Assisted Treatment (MAT) Provider Locator

An MAT locator is provided that creates a list of the 30 closest providers who are listed in the federal buprenorphine treatment locator database.

Access to Treatment

Mat Providers

Find the 30 closest MAT providers for this patient. The patient's zip code is prep-populated if available. [View more information about the treatment locator.](#)

Search for providers near:

Zip Code

45320



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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