PRESCRIPTION DRUG MONITORING PROGRAM

GEORGIA REPORT, 2016–2017

Georgia Department of Public Health (DPH) • Epidemiology Section
dph.georgia.gov/epidemiology

Georgia Department of Public Health

The Prescription Drug Monitoring Program (PDMP)

The purpose of this report is to describe opioid prescribing patterns in Georgia during 2016–2017. Prescription data from the Georgia Prescription Drug Monitoring Program (PDMP) were analyzed by the Georgia Department of Public Health (DPH) Epidemiology Program Drug Overdose Surveillance Unit. Certain prescribing practices are considered high-risk, and may predispose patients to opioid use disorder and overdose, hence contributing to the growing opioid epidemic (for more information about the opioid epidemic in Georgia, see the Georgia opioid overdose surveillance reports available at https://dph.georgia.gov/drug-overdose-surveillance-unit). These prescribing practices are presented as PDMP indicators in this report; detailed analyses of the PDMP data were conducted to measure the total number of opioid prescriptions, number of patients receiving opioids, drug type, days dispensed, and other indicators of prescribing such as overlapping opioid or opioid and benzodiazepine prescriptions.

In 2016, the Centers for Disease Control and Prevention (CDC) released opioid prescribing guidelines for healthcare providers for chronic diseases (https://www.cdc.gov/drugoverdose/prescribing/guideline.html). Appropriate prescribing, and adhering to these CDC guidelines to prevent problematic prescribing, may help improve patient care and safety, and decrease the risk of opioid use disorder and overdose. Data in this report will be used to educate stakeholders and inform prevention efforts across the state.

What is the PDMP?

The PDMP is an electronic database used to collect, monitor, and analyze prescribing and dispensing data about controlled substances (such as opioids, benzodiazepines, and stimulants) in Georgia. The PDMP collects details of every Schedule II – V prescription drug order dispensed in Georgia. Registered healthcare practitioners, pharmacists, and regulatory boards report these data into the PDMP through an online portal. A person authorized to access the PDMP can look up a patient and their prescription history from the previous two years. On July 1, 2017, the Georgia Drug and Narcotics Agency, who had been managing the PDMP since its establishment in 2013, transferred administration of the program to DPH.

The PDMP can help prescribers and dispensers of controlled substances to identify patients who are at risk of addiction, who "doctor shop", or who are prescribed dangerous amounts and/or combinations of controlled substances. It can also help law enforcement personnel detect inappropriate prescribing practices. The PDMP does not interfere with appropriate, professional prescribing and dispensing; it is intended only to help eliminate duplicative prescribing, overprescribing, and diversion of controlled

substances. PDMP data are also used to support Georgia's overarching statewide opioid response strategic plan, which spans across myriad agencies and activities, including public health, education, research, enforcement of appropriate prescribing and dispensing, drug abuse prevention, and treatment and recovery.

PDMP Requirements

Since July 1, 2017, dispensers have been required by Georgia law (https://dph.georgia.gov/sites/dph.georgia.gov/files/HB249_law.pdf) to enter prescription information for any Schedule II-V controlled substance within 24 hours of dispensing. Prescribers were required to register into the PDMP system by January 1, 2018. Beginning on July 1, 2018, prescribers will be required to check the PDMP before prescribing schedule II opioids and cocaine derivatives, or benzodiazepines, with some exceptions (https://dph.georgia.gov/pdmp). The PDMP is a tool for prescribers to review a patient's prescription history to assist with appropriate and safe prescribing of controlled substances.

Only prescribers and dispensers who practice in Georgia are required to use the PDMP. Prescribers and dispensers are allowed to register two delegates (staff without a DEA number) per shift or rotation to check the PDMP and retrieve patient prescription histories.

PDMP Data Sharing

Georgia law (2017 Georgia House Bill 249) allows DPH to share PDMP prescription information with electronic health record systems, and other States, including law enforcement from other states through subpoenas. Law enforcement agencies may need these data when they are conducting investigations into inappropriate prescribing or dispensing of controlled substances.

For more information:

- About the PDMP: GA PDMP Overview and FAQs
- County level data and Georgia overdose surveillance reports: https://dph.georgia.gov/drug-overdose-surveillance-unit
- Georgia overdose mortality interactive maps and statistics: https://oasis.state.ga.us/PageDirect.aspx?referer=MortalityDrugOverdoses

Georgia PDMP, 2016-2017: Key Findings

Georgia saw improvements in opioid prescribing practices from 2016 to 2017, as evidenced by these PDMP indicators:

- In 2017, there were 8,001,050 opioid prescriptions dispensed to 2,177,640 patients in Georgia. These prescriptions averaged 18.1 days of opioids dispensed per prescription.
- From 2016 to 2017, the number of opioid prescriptions statewide decreased by 6.9%, benzodiazepine prescriptions by 7.8%, and stimulants by 7.3%.
- The number of patients receiving opioid prescriptions decreased by 6.6% from 2016 to 2017, but the average number of days dispensed per opioid prescription increased by 1.3%.
- The number of opioid prescriptions dispensed by quarter trended downward throughout 2016 and 2017. In the first quarter of 2016, there were 2,200,818 opioid prescriptions dispensed compared to 1,890,840 prescriptions in the last quarter of 2017. During this period, several changes were made to the PDMP as a result of Georgia House Bill 249, which was signed into law during the 2017 legislative session, and the Centers for Disease Control and Prevention (CDC) also released opioid prescribing guidelines for chronic conditions in 2016 (https://www.cdc.gov/drugoverdose/prescribing/guideline.html).
- From 2016 to 2017, the rate of opioid prescriptions dispensed decreased by 15% among persons aged 5-24 years, 14% among those aged 25-34 years, 10% among those aged 35-54 years, and 5% among those aged 55-64 years. Opioid prescriptions overall decreased 7% among both males and females.
- High opioid dosages are associated with an increased risk of opioid use disorder and overdose; the 2016 CDC opioid prescribing guidelines recommended that daily opioid dosages should not exceed 90 morphine milligram equivalents (MME). While there were some quarterly increases in Georgia overall the percentage of patients receiving an average daily dose of opioids exceeding 90 MME remained fairly steady, with a slight downward trend.

- The use of multiple prescribers and pharmacies can be an indication of drug seeking behavior and opioid use disorder. In Georgia, the number of instances of multiple provider episodes (a patient received prescriptions for opioids from five or more prescribers dispensed at five or more pharmacies within a six-month period) per 100,000 population decreased by 48.3% from the first half of 2016 to the second half of 2017.
- Opioid naïve patients (patients with no opioid prescriptions in the previous 60 days) who are prescribed long acting/extended release (LA/ER) opioids may be at higher risk of opioid use disorder. The percent of opioid naïve patients receiving LA/ER refers to the number of opioid naïve patients who were prescribed at least one LA/ER opioid, among all patients with LA/ER opioid prescriptions. Although the overall percentage of opioid naïve patients receiving long-acting opioids decreased by 19.1% from 2016 to 2017, from Q2 2016 to Q4 2017, the percentage of these patients remained fairly steady.
- Percent overlapping opioid prescriptions refers to the number of days that patients had more than one opioid prescription, among all opioid prescription days. Patients with overlapping prescriptions for opioids are at greater risk of opioid use disorder and overdose. The percent of patient days with overlapping opioid prescriptions in Georgia decreased by 3.1% from 2016 to 2017.
- Percent overlapping opioid and benzodiazepine prescriptions refers to the number of days that patients had an opioid and benzodiazepine prescription on the same day, among all opioid prescription days. The simultaneous use of opioid and benzodiazepine prescriptions can increase the risk of prescription drug misuse and overdose. The percent of patient days with overlapping opioid and benzodiazepine prescriptions in Georgia decreased by 8.2% from 2016 to 2017.
- Short-Acting Hydrocodone, Oxycodone, and Tramadol were the most-prescribed opioids in Georgia during both 2016 and 2017.
- The number of registered PDMP users increased by 114.4% from July 1, 2017 to May 29, 2018; legislation requiring prescribers to be registered by the end of 2017 took effect in July 2017.
- Patient queries by prescribers or their delegates (pharmacists, physicians, dentists, nurse practitioners, etc.) increased 163.3% from 2016 to 2017, with almost 3 million queries performed in 2017.

Prescription Drug Monitoring Program
Data Indicators

Data Source

All schedule II-V drug prescriptions dispensed and reported to the Georgia Prescription Drug Monitoring Program during 2016–2017

PDMP Indicator Description

Opioid analgesic prescriptions

Opioid analgesic controlled substance prescriptions dispensed and reported to the PDMP. Drugs administered to patients by substance abuse treatment programs are usually excluded from PDMP files and therefore are not captured by this indicator. Additional exclusion criteria include: (1) drugs not typically used in outpatient settings or otherwise not critical for calculating dosages in morphine milligram equivalents (MME), such as cough and cold formulations including elixirs, and combination products containing antitussives, decongestants, antihistamines, and expectorants; (2) all buprenorphine products. Rate is calculated per 1,000 population (Georgia residents).

Opioid prescription patients

The number of individual patients receiving an opioid analgesic controlled substance prescription that was dispensed and reported to the PDMP. Rate is calculated per 1,000 population (Georgia residents).

Days per opioid prescriptions

The average number of days of opioid analgesics supplied per prescription.

Patients receiving avg. daily dose >= 90 morphine milligram equivalents

% of patients with an average of ≥90 MME of opioid analgesic drugs prescribed per day.

- Numerator: the number of patients with an average of ≥90 MME of opioid analgesic drugs prescribed per day
- Denominator: state residents who received an opioid analgesic prescription
- Average MME per day is calculated from total number of MMEs from all-drugs prescribed per day, inclusive of overlapping prescriptions of either the same and/ or differing drugs, divided by the total number of prescription days

Multiple provider episodes for opioids per 100,000 population

The number of patients receiving prescriptions for opioid analgesics from five or more prescribers dispensed at five or more pharmacies (reporting to the PDMP), per 100,000 population.

- Numerator: The number of instances of patients receiving prescriptions for opioid analgesics from five or more prescribers dispensed at five or more pharmacies during a 6-month period
- Denominator: 100,000 population (Georgia residents)

Opioid naïve patients receiving long acting opioids

Patients with no opioid prescriptions in the previous 60 days who were prescribed at least one long acting/extended release (LA/ER) opioid, among all patients with LA/ER opioid prescriptions.

- Numerator: opioid naïve patients with at least one LA/ER opioid prescription
- Denominator: all patients with at least one LA/ER prescription

Patient days with overlapping opioid prescription

% of days that patients had more than one prescribed opioid prescription on the same day.

- Numerator: total number of days any patient had more than one opioid prescription
- Denominator: total number of opioid prescription days for state residents in the state PDMP. A prescribed day with overlapping opioid prescriptions (≥2) is only counted as one prescribed opioid day

Patient days with overlapping opioid and benzodiazepine prescription

% of days that patients had an opioid and benzodiazepine prescription on the same day.

- Numerator: total number of days any patient had an opioid and benzodiazepine prescription on the same day
- Denominator: total number of opioid prescription days for state residents in the state PDMP. A prescribed day with overlapping opioid prescriptions (≥2) is only counted as one prescribed opioid day

Other Definitions or Limitations

Not all out of state pharmacies report to the Georgia PDMP, therefore some prescriptions obtained in another state, or by mail, could be missing from these data.

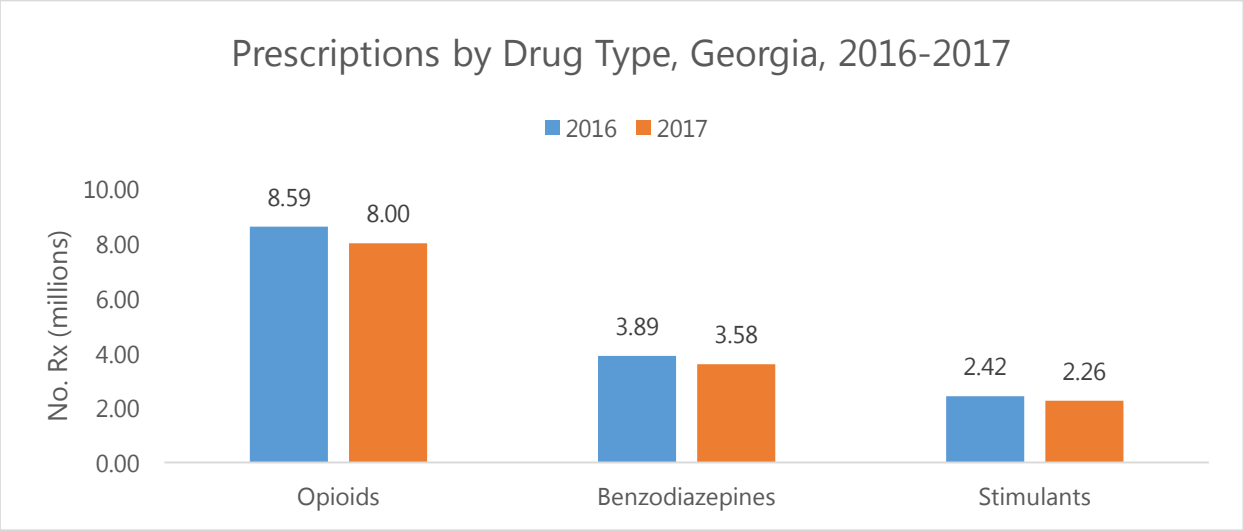
Rates are not age-adjusted, therefore counties with older populations that tend to have more chronic conditions for which opioids are prescribed for pain management, may have higher opioid prescription rates due in part to the population distribution.

Some 2017 prescription data were missing sex and age (<2% missing), therefore the race and age data represents only prescriptions for which sex and age where completed.

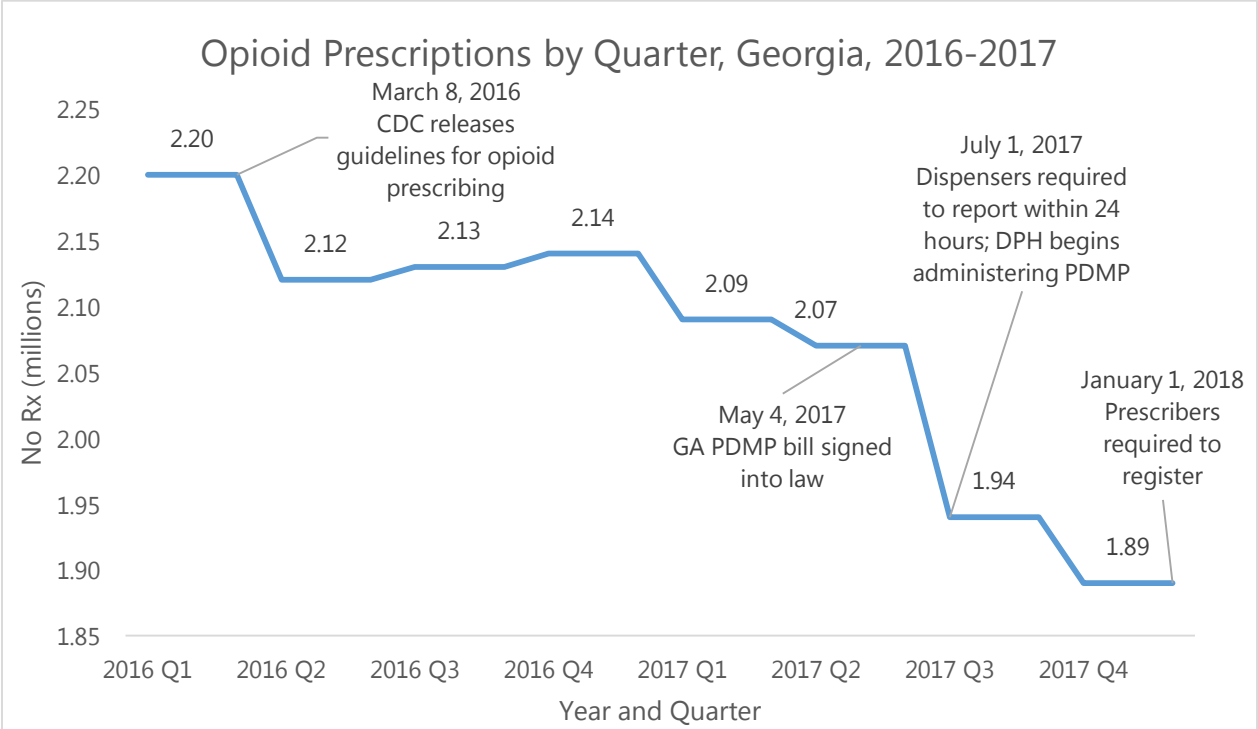
We report on three categories of controlled substances in this report, these categories include:

- Opioids: Buprenorphine, Butorphanol, Codeine, Dezocine, Dihydrocodeine, Fentanyl, Fentanyl, Hydrocodone, Hydromorphone, Meperidine, Methadone, Morphine, Nalbuphine, Opiate Agonists, Oxycodone, Oxymorphone, Pentazocine, Tapentadol, Tramadol, and other opioids
- Benzodiazepines: Alprazolam, Chlordiazepoxide, Clonazepam, Clorazepate, Diazepam, Estazolam, Flurazepam, Lorazepam, Oxazepam, Temazepam, Triazolam, and other benzodiazepines
- Stimulants: Amphetamine, Benzphetamine, Desoxyephedrine, Dexmethylphenidate, Dextroamphetamine, Lisdexamfetamine, Methylphenidate, and other stimulants

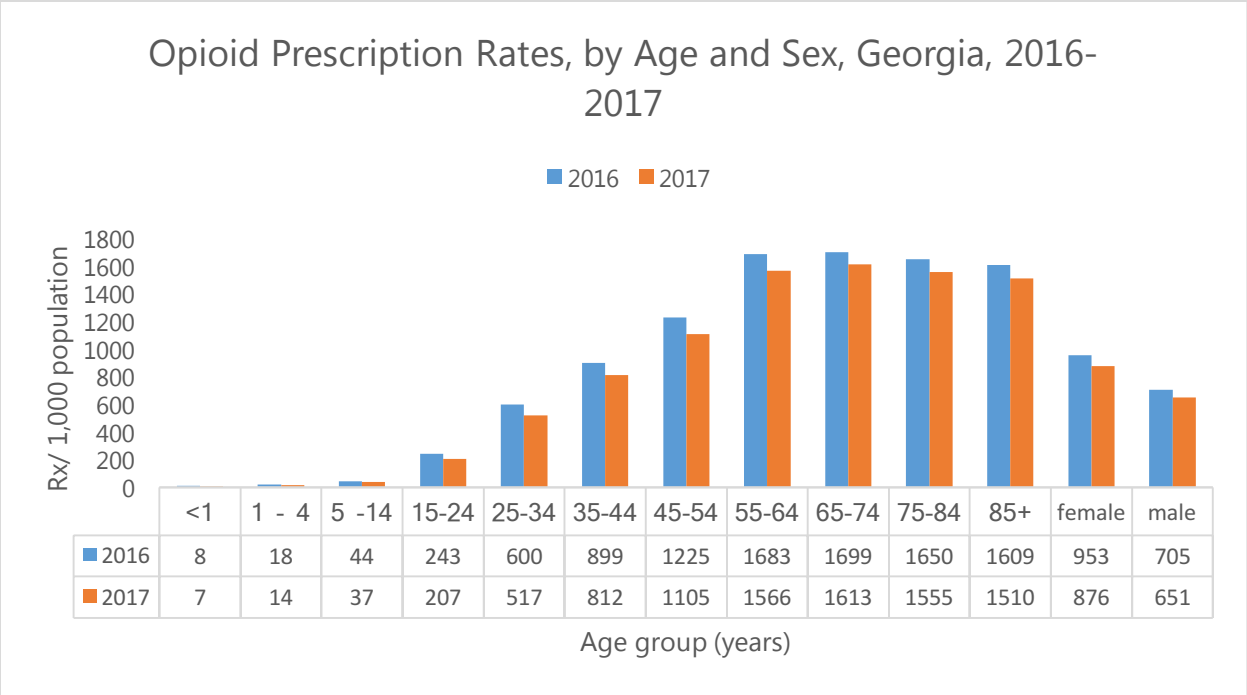
Prescription Drug Monitoring Program Data Indicators



Opioids are the most frequently prescribed controlled substance in Georgia, followed by benzodiazepines. From 2016 to 2017, the number of opioid prescriptions decreased by 6.9%, benzodiazepine prescriptions by 7.8%, and stimulants by 7.3%.

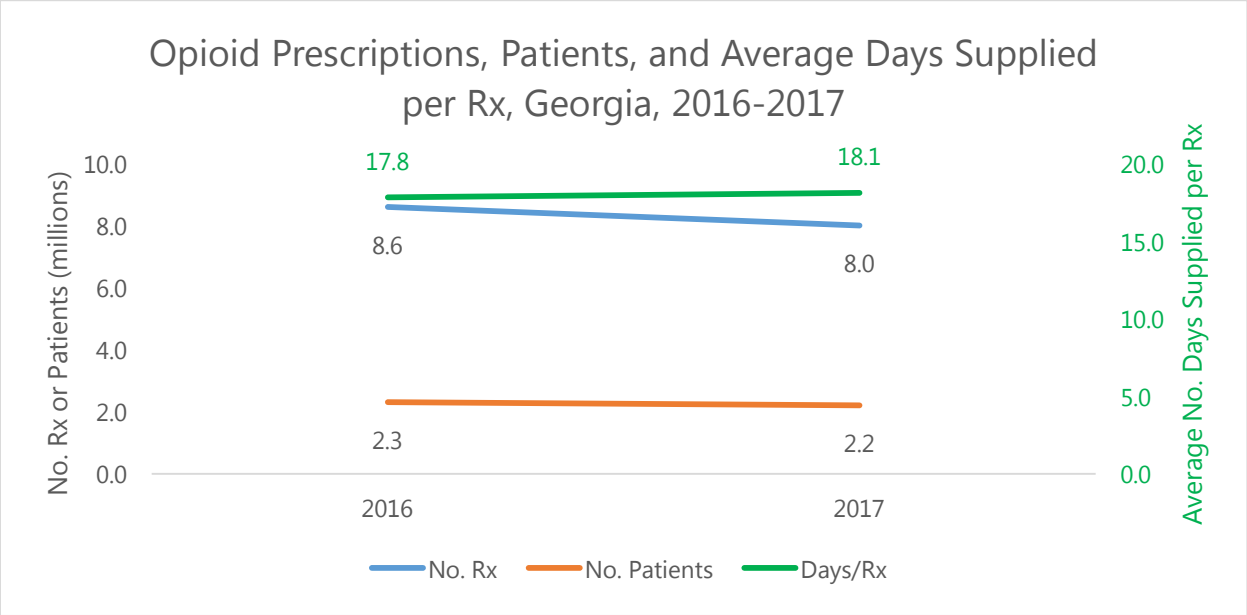


The number of opioid prescriptions dispensed by quarter trended downward throughout 2016 and 2017. In the first quarter of 2016, there were 2,200,818 opioid prescriptions dispensed compared to 1,890,840 prescriptions in the last quarter of 2017. During this period, several changes were made to the PDMP as a result of Georgia House Bill 249, which was signed into law during the 2017 legislative session, and the CDC also released opioid prescribing guidelines for chronic conditions in 2016.

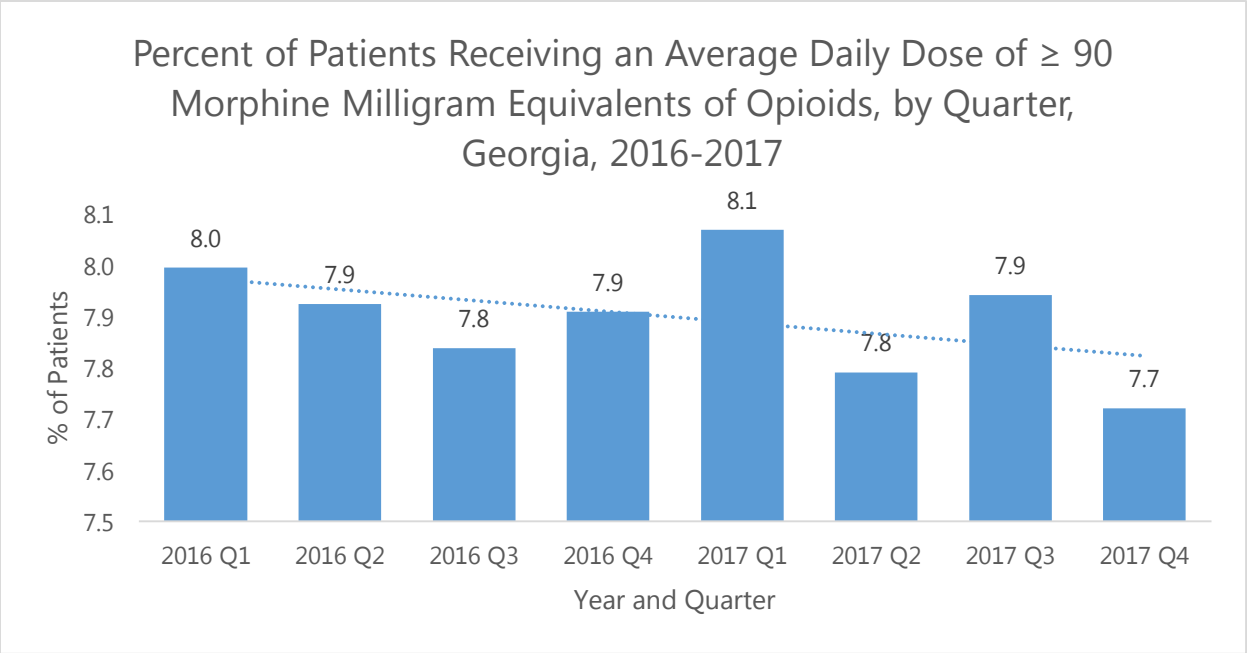


	<1	1 - 4	5 -14	15-24	25-34	35-44	45-54	55-64	65-74	75-84	85+	female	male
2016	8	18	44	243	600	899	1225	1683	1699	1650	1609	953	705
2017	7	14	37	207	517	812	1105	1566	1613	1555	1510	876	651

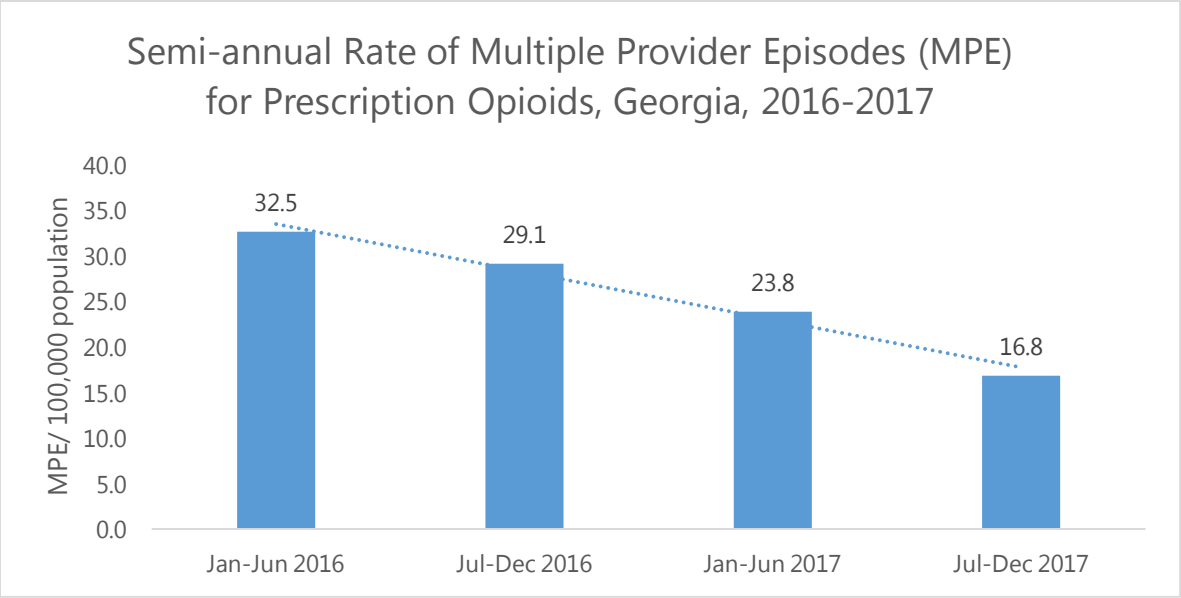
From 2016 to 2017, the rate of opioid prescriptions dispensed in Georgia decreased by 15% among persons aged 5-24 years, 14% among those aged 25-34 years, 10% among those aged 35-54 years, and 5% among those aged 55-64 years. Opioid prescriptions decreased 7% among both males and females.



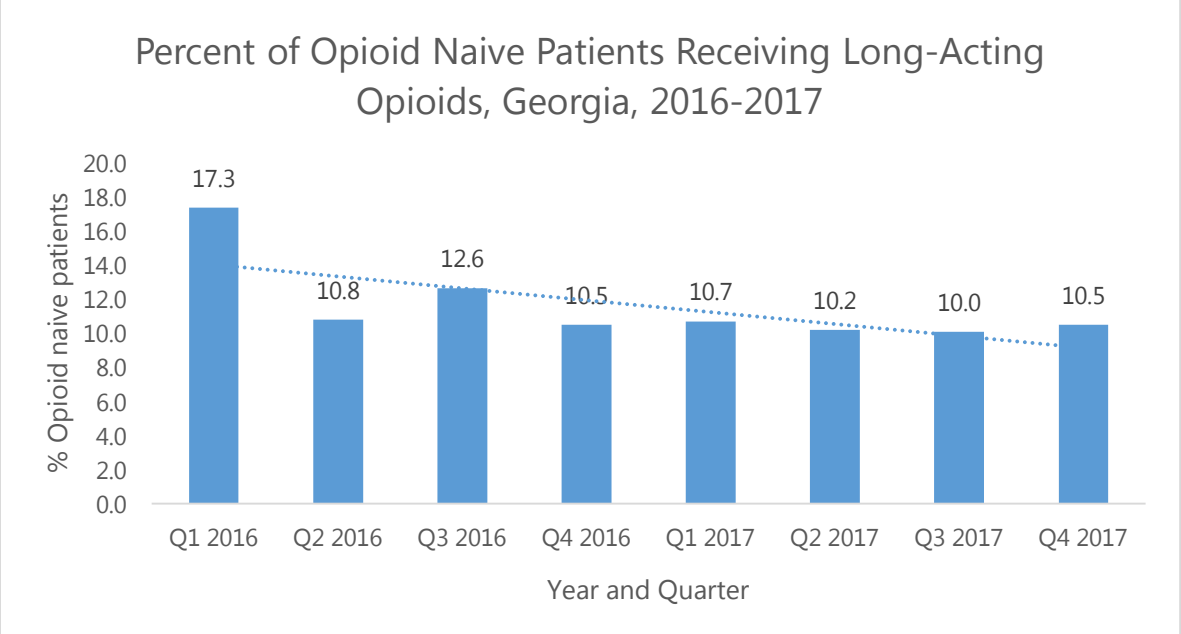
The number of opioid prescriptions and patients receiving opioid prescriptions decreased by 6.9% and 4.7%, respectively, from 2016 to 2017, but the average number of days dispensed per opioid prescription increased by 1.3%.



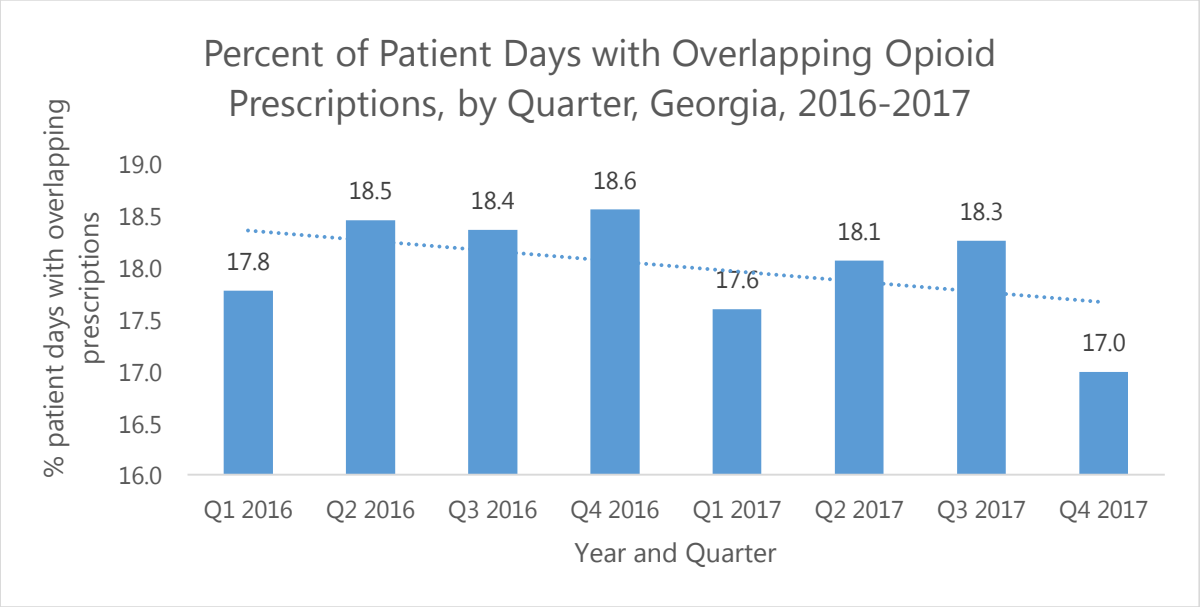
High opioid dosages are associated with an increased risk of opioid use disorder and overdose. The 2016 CDC opioid prescribing guidelines recommended that daily opioid dosages should not exceed 90 morphine milligram equivalents (MME). The graph above represents the quarterly percent of patients in Georgia who were receiving an average daily dose of ≥90 (MME) of opioids during 2016-2017. While there were some quarterly increases, the overall percentage of patients receiving an average daily dose of opioids exceeding 90 MME remained fairly steady over this time period, with a slight downward trend.



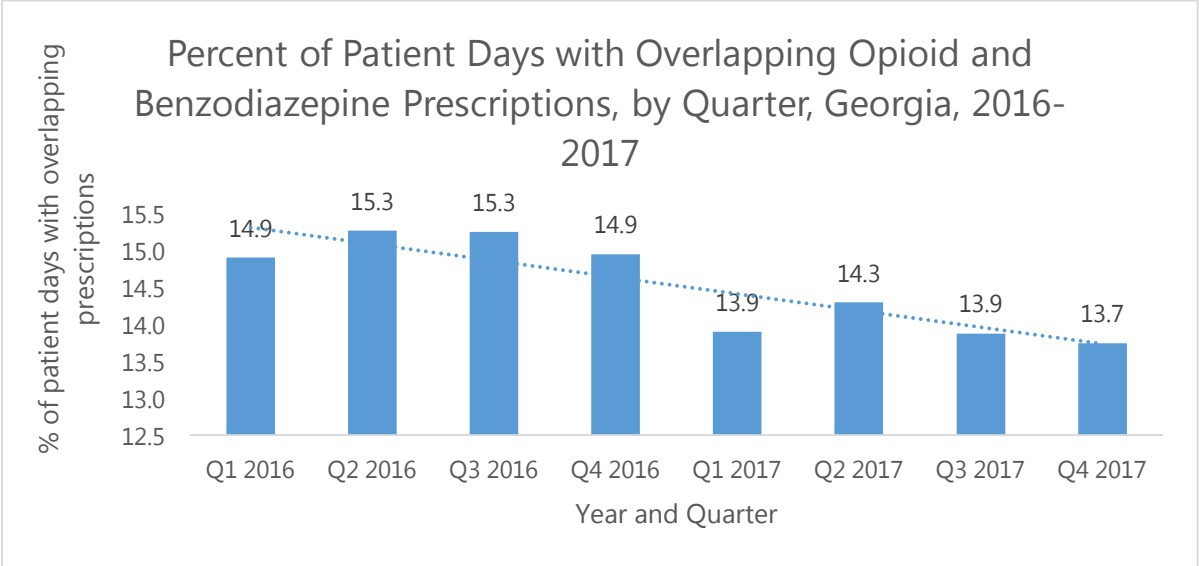
In addition to high daily dosages of opioids, the use of multiple prescribers and pharmacies can be an indication of drug seeking behavior and opioid use disorder. In Georgia, the number of patients who received prescriptions for opioids from five or more prescribers dispensed at five or more pharmacies within a six-month period (per 100,000 population) decreased by 48.3% from the first half of 2016 to the second half of 2017.



Opioid naïve patients (patients with no opioid prescriptions in the previous 60 days) who are prescribed long acting/extended release opioids may be at higher risk of opioid use disorder. Although the overall percentage of opioid naïve patients receiving long-acting opioids decreased by 19.1% from 2016 to 2017, from Q2 2016 to Q4 2017, the percentage of these patients remained fairly steady.

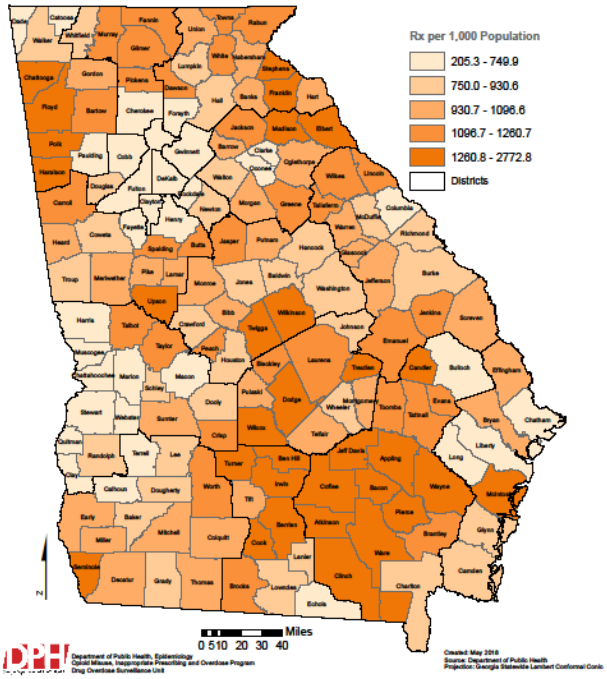


Overlapping opioid prescriptions refers to the total number of days that patients had more than one opioid prescription, among all prescription days. Patients with overlapping prescriptions for opioids are at greater risk of opioid use disorder and overdose. Overall in Georgia, the percent of patient days with overlapping opioid prescriptions decreased by 3.1% from 2016 to 2017.



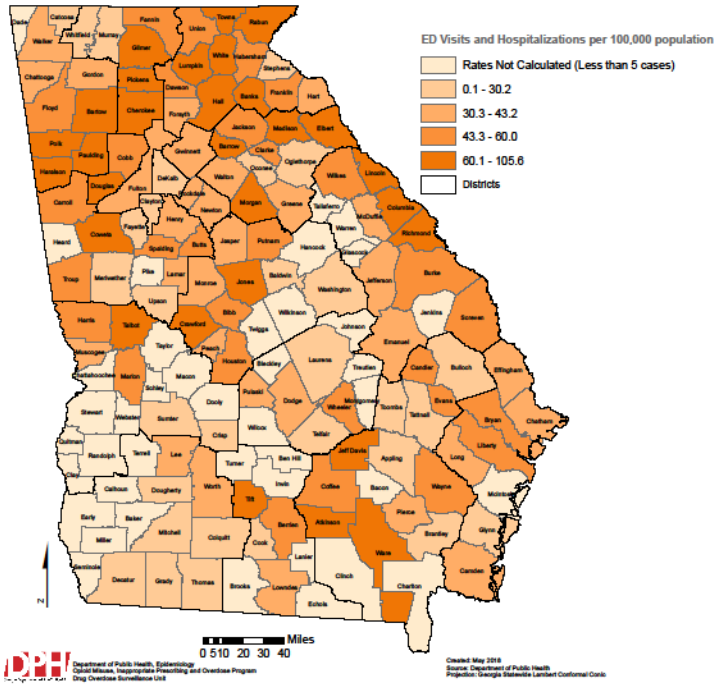
Overlapping opioid and benzodiazepine prescriptions refers to the total number of days that patients had an opioid and benzodiazepine prescription on the same day, among all opioid prescription days. The simultaneous use of opioid and benzodiazepine prescriptions can increase the risk of prescription drug misuse and overdose. Overall, in Georgia, the percent of patient days with overlapping opioid and benzodiazepine prescriptions opioids decreased by 8.2% from 2016 to 2017.

Opioid Prescriptions, by County, Georgia, 2017



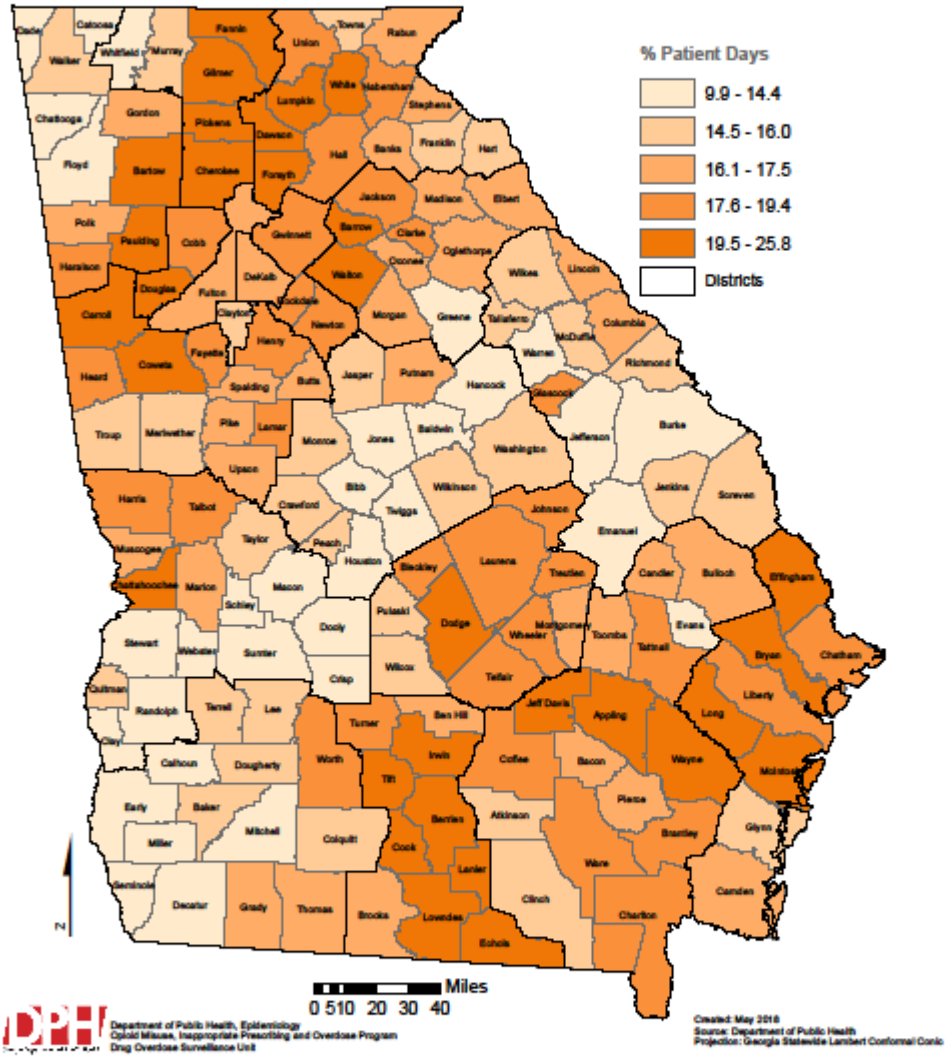
Note: Rates are not age-adjusted, therefore counties with older populations that tend to have more chronic conditions for which opioids are prescribed for pain management, may have higher prescription rates due in part to the population makeup of the county.

Any Opioid-involved Overdoses, Emergency Department Visits and Hospitalizations, by County, Georgia, 2017



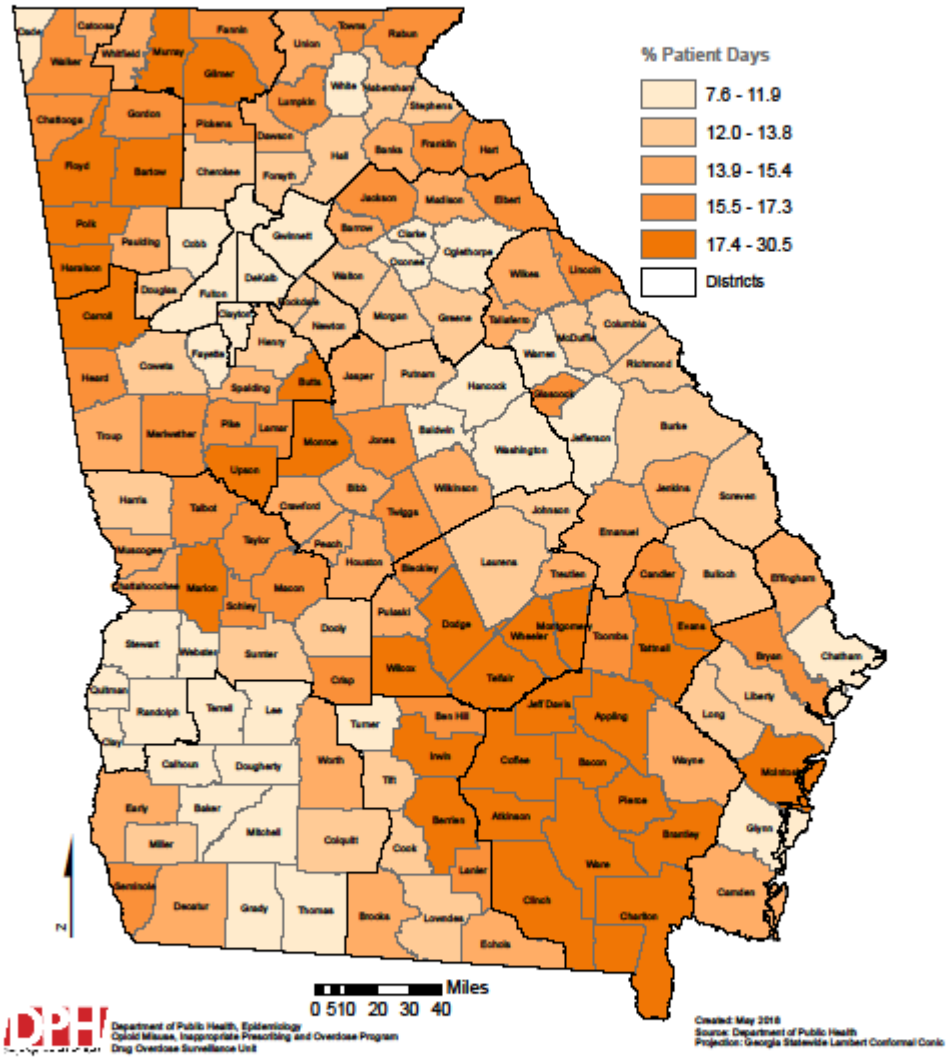
Note: Data used to calculate rates is preliminary data and is not the complete file of any opioid-involved overdose emergency department visit and hospitalization rates in Georgia in 2017. See the 2017 Opioid Overdose Surveillance Report for more details about this map https://dph.georgia.gov/drug-overdose-surveillance-unit

Percent Patient Days* of Overlapping Opioid Prescriptions, by County, Georgia, 2017



*Percent of days that patients had more than one opioid prescription on the same day in a given year.

Percent Patient Days of Overlapping Opioid & Benzodiazepine Prescriptions, by County, Georgia, 2017



*Percent of days that patients had an opioid and benzodiazepine prescription on the same day in a given year.

Top Ten Opioids Prescribed, Georgia, 2016–2017			
Rank	**Opioid drug**	**No. prescriptions 2016**	**No. prescriptions 2017**
1	Hydrocodone SA*	3,300,114	2,913,553
2	Oxycodone SA	1,893,115	1,847,378
3	Tramadol SA	1,730,785	1,675,260
4	Codeine	474,798	470,132
5	Buprenorphine	279,592	287,696
6	Morphine LA*	204,310	192,654
7	Fentanyl LA	158,802	140,721
8	Methadone	105,608	99,393
9	Oxycodone LA	100,775	91,746
10	Morphine SA	80,515	82,086
*SA: short-acting, LA: long-acting			

Prescription Drug Monitoring Program Registrations and Patient Queries, Georgia, 2016–2017					
PDMP user type	**No. registered as of 7/1/2017**	**No. registered as of 12/21/2017**	**No. registered as of 5/29/2018**	**No. patient queries 2016**	**No. patient queries 2017**
Dentist	652	2,751	3,878	2,747	7,060
Dispensing Physician	0	8	17	0	0
Medical Resident	73	967	1,354	102	1,365
Midwife	3	46	93	1	70
Nurse Practitioner	1,589	3,118	4,326	82,767	224,834
Optometrist	6	640	742	4	0
Out-of-State Pharmacist	0	0	21	0	0
Out-of-State Prescriber	0	29	67	0	53
Pharmacist	9,143	9,762	10,009	534,351	1,237,358
Pharmacist's Delegate	122	201	259	1,736	17,413
Physician (MD, DO)	7,580	17,339	19,599	476,850	1,388,172
Physician Assistant	1,148	2,092	2,329	39,886	114,629
Podiatrist	97	248	353	463	1,596
Prescriber Delegate	3	177	667	179	7,395
Veterans Affairs Prescriber	0	47	66	0	53
TOTAL	20,416	37,431	43,780	1,139,086	2,999,998

Prescription Drug Monitoring Program Indicators, Georgia, 2016–2017

See Prescription Drug Monitoring Program Data Indicators table for description of indicators below

	2016					2017				
Indicator description	**Total**	**Jan-Mar**	**Apr-Jun**	**Jul-Sep**	**Oct-Dec**	**Total**	**Jan-Mar**	**Apr-Jun**	**Jul-Sep**	**Oct-Dec**
No. opioid prescriptions	8,589,707	2,200,818	2,122,596	2,127,140	2,139,153	8,001,050	2,093,949	2,073,768	1,942,493	1,890,840
No. stimulant prescriptions	2,424,989	628,753	567,854	604,029	624,353	2,261,285	617,005	547,395	538,580	558,305
No. benzodiazepine prescriptions	3,886,369	996,669	964,033	972,388	953,279	3,584,637	921,796	913,215	871,978	877,648
Opioid Rx/ 1,000 population	833.1	N/A	N/A	N/A	N/A	767.2	N/A	N/A	N/A	N/A
No. opioid patients	2,331,269	1,027,451	994,989	991,178	990,614	2,177,640	979,143	962,603	913,093	897,725
Opioid patients/ 1,000 population	226.1	99.7	96.5	96.1	96.1	208.8	93.9	92.3	87.6	86.1
Days/ opioid prescription	17.8	17.7	17.9	17.8	18.0	18.1	18.0	18.1	18.1	18.1
% Patients receiving avg. daily dose >= 90 morphine milligram equivalents	7.9	8.0	7.9	7.8	7.9	7.9	8.1	7.8	7.9	7.7
Multiple provider episodes/ 100,000 population	30.8	32.5		29.1		20.3	23.8		16.8	
% Opioid naïve patients receiving long acting opioids	12.8	17.3	10.8	12.6	10.5	10.3	10.7	10.2	10.0	10.5
% Patient days with overlapping opioid prescriptions	18.3	17.8	18.5	18.4	18.6	17.7	17.6	18.1	18.3	17.0
% Patient days with overlapping opioid and benzodiazepine prescriptions	15.1	14.9	15.3	15.3	15.0	14.0	13.9	14.3	13.9	13.8

Prescription Drug Monitoring Program Indicators by Age and Sex, Georgia, 2017

See Prescription Drug Monitoring Program Data Indicators table for description of indicators below

	Indicator						
	No. opioid Rx	**No. stimulant Rx**	**No. benzo. Rx**	**Opioid Rx/ 1,000 population**	**No. opioid patients**	**Opioid patients/ 1,000 population**	**Days/ opioid Rx**
Age Group							
<1 year	885	8	393	6.8	668	5.1	12.8
1-4 years	7,426	592	3,819	14.0	6,214	11.7	9.1
5 -14 years	52,784	126,968	13,839	37.3	39,695	28.0	8.8
15-24 years	298,367	80,397	34,970	206.9	197,436	136.9	6.4
25-34 years	751,408	51,139	78,048	517.0	307,834	211.8	10.6
35-44 years	1,110,468	40,957	116,211	812.1	330,732	241.9	15.2
45-54 years	1,568,651	32,593	148,775	1105.4	381,361	268.7	18.6
55-64 years	1,978,235	18,109	161,137	1565.6	401,825	318.0	20.8
65-74 years	1,404,320	6,090	127,172	1612.5	308,261	354.0	21.2
75-84 years	613,163	1,092	66,308	1554.9	147,925	375.1	21.0
85+ years	215,343	236	30,294	1510.2	55,689	390.5	20.2
Sex							
Male	3,304,324	192,013	261,317	651.0	898,328	177.0	18.3
Female	4,689,364	166,021	517,595	875.9	1,276,966	238.5	17.9

Georgia Department of Public Health (DPH), Epidemiology Section, Drug Overdose Surveillance Unit

https://dph.georgia.gov/drug-overdose-surveillance-unit

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