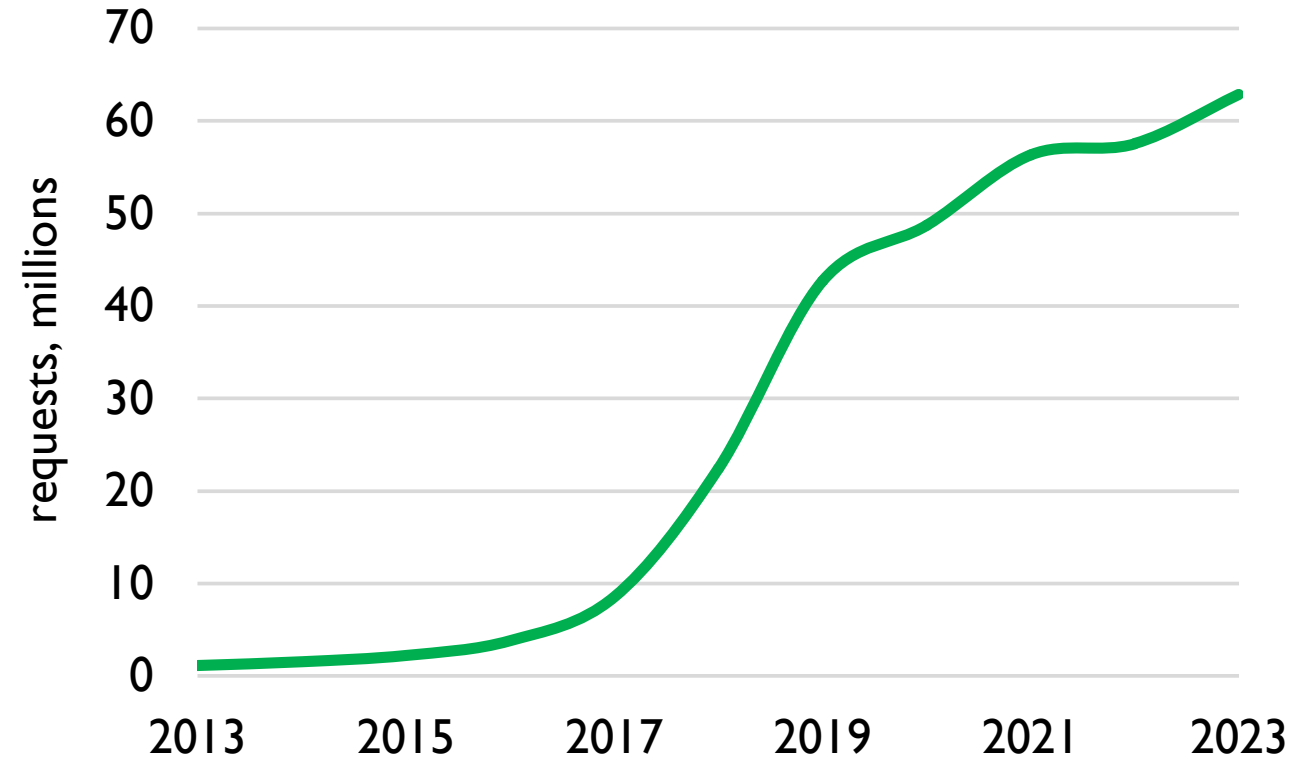


Quarterly Report
October 1, 2023 – December 31, 2023
2023Q4
Virginia Prescription Monitoring Program

Key Findings for the Fourth Quarter (2023Q4)

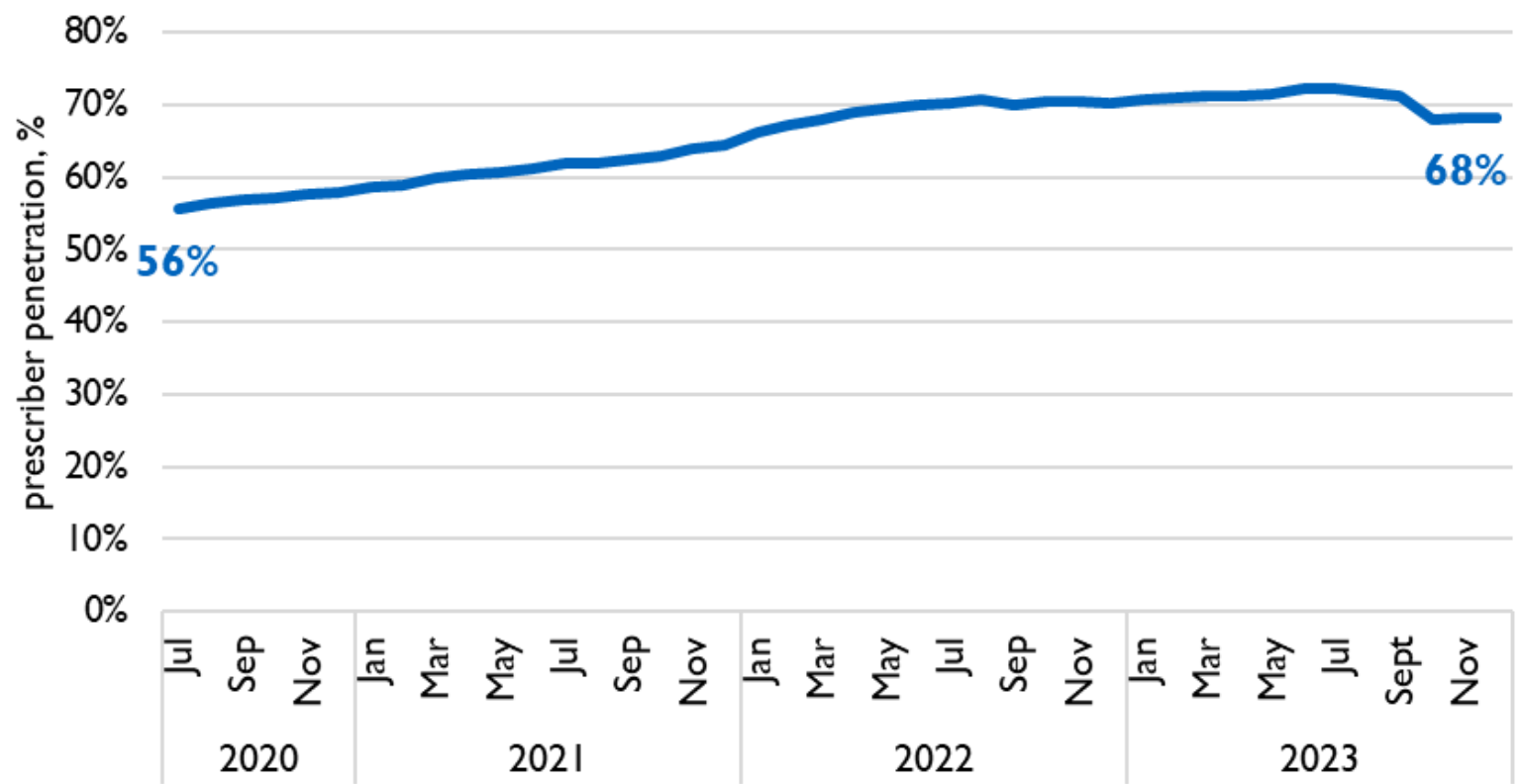
- 96% of opioid prescriptions are transmitted electronically from prescriber to dispenser.
- Multiple provider episodes, defined as ≥ 5 prescribers and ≥ 5 pharmacies in a 6-month period, increased from 1.7 (2022Q1) to 2.1 per 100,000 this quarter.
- Four percent of Virginians, or 384,199 residents, received an opioid prescription. This excludes individuals who received buprenorphine products.

Increasing PMP utilization



- Requests for a patient's prescription history grow exponentially each year
- Rapid rise in utilization of the PMP is primarily the result of expansions in integration within the electronic health record and pharmacy software applications
 - 95% of total requests are through an integrated application during 2023Q4

Prescriber penetration, July 2020-December 2023

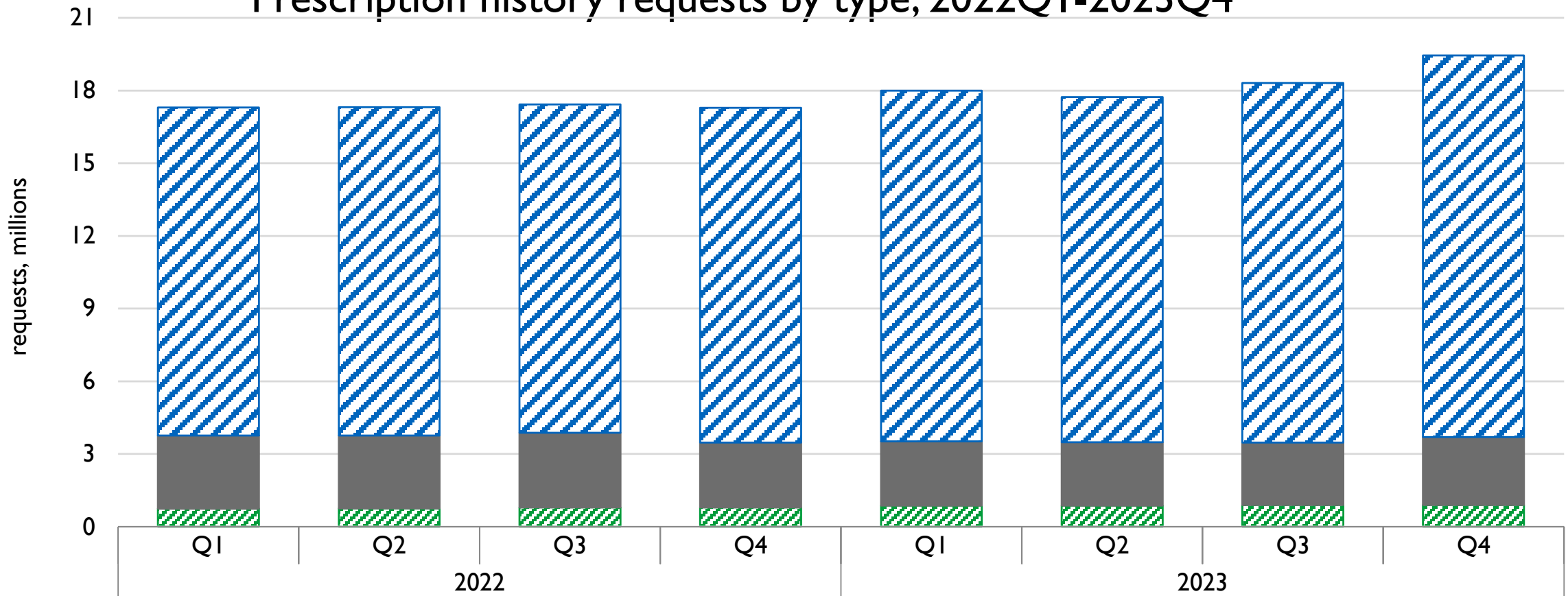


Prescriber penetration is defined as percent of prescribers accessing PMP via integrated EHR of the total prescribers actively prescribing controlled substances

$$prescriber\ penetration = \frac{accessing\ PMP\ via\ EHR}{actively\ prescribing\ CS}$$

Increasing PMP utilization

Prescription history requests by type, 2022Q1-2023Q4



Integration (in state)	13,539,252	13,543,352	13,547,185	13,815,594	14,477,226	14,247,641	14,831,614	15,754,686
PMPi	3,027,539	3,004,750	3,083,357	2,681,063	2,646,955	2,625,017	2,577,142	2,794,792
Web application	740,383	761,652	793,115	797,211	875,148	865,105	899,510	902,513

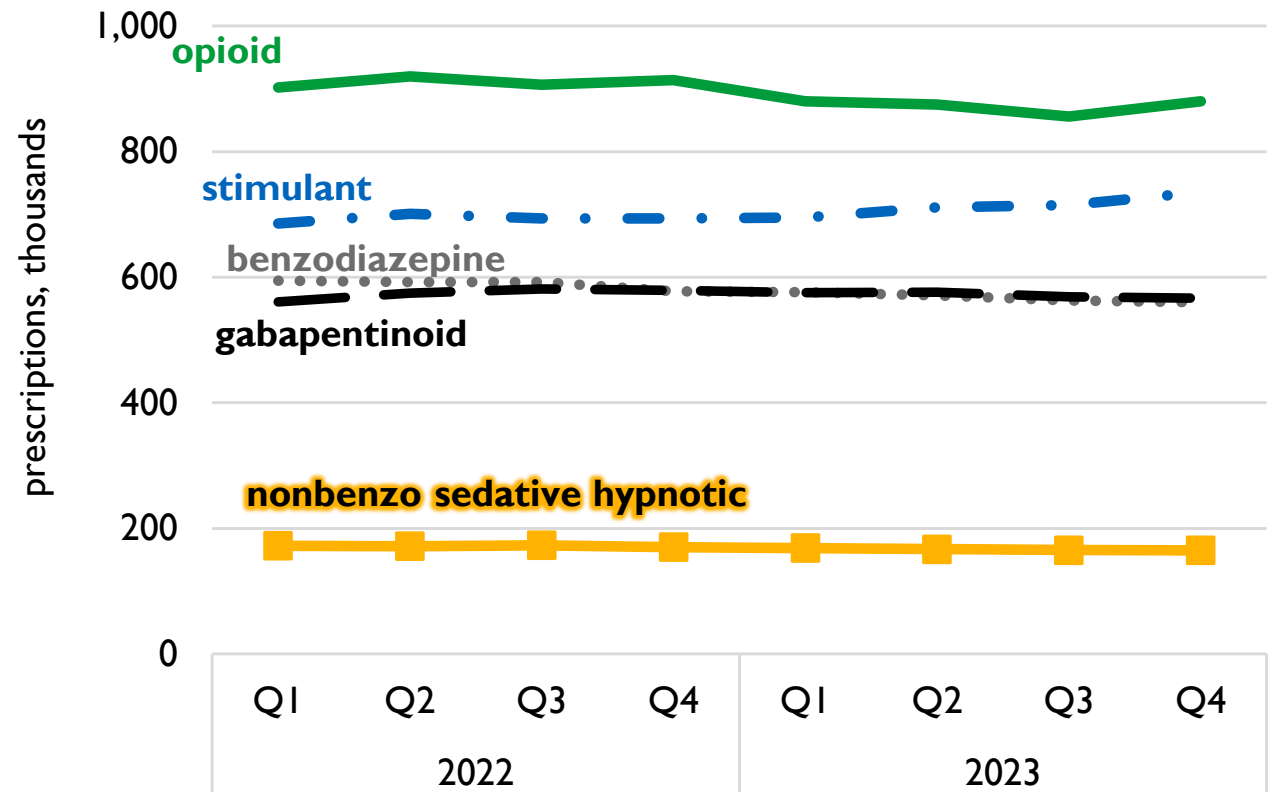
PMPi or PMP Interconnect allows interoperability among states' PMPs

Drug class

Percent change by drug class 2022Q1-2023Q4

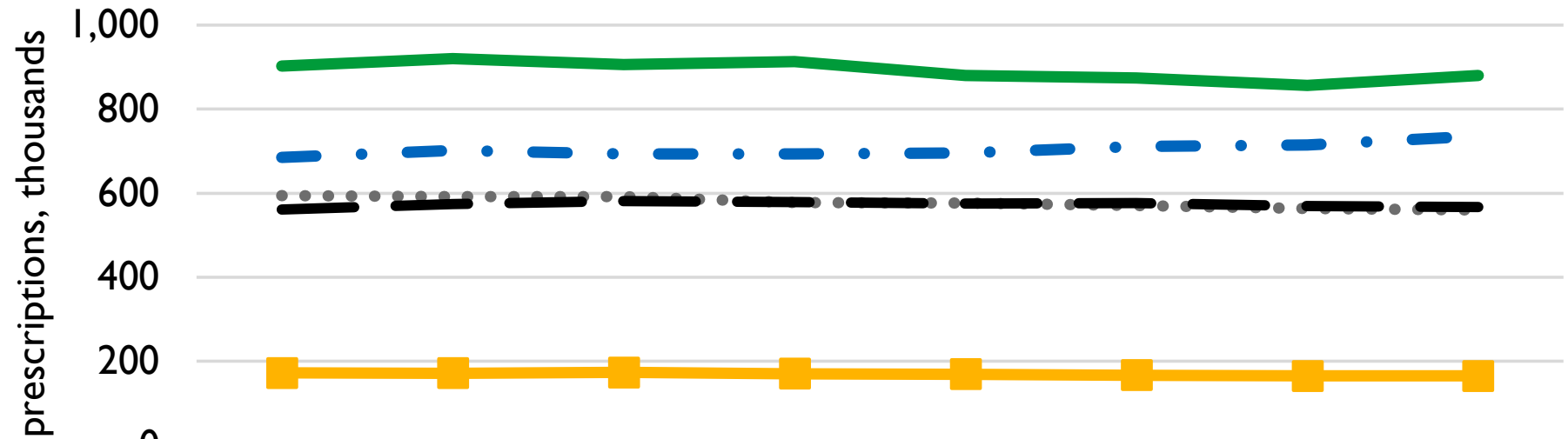
Opioid*	↓ 2%
Benzodiazepine	↓ 6%
Stimulant	↑ 7%
Gabapentinoid	↑ 1%
Nonbenzo sedative hypnotics	↓ 4%

Prescriptions dispensed by drug class, 2022Q1-2023Q4



*All opioids, including drugs not typically used in outpatient settings or otherwise not critical for calculating dosages in MME, such as cough and cold formulas including elixirs, and combination products containing antitussives, decongestants, antihistamines, and expectorants; opiate partial agonists (e.g., buprenorphine) is excluded

Prescriptions dispensed by drug class, 2022Q1-2023Q4



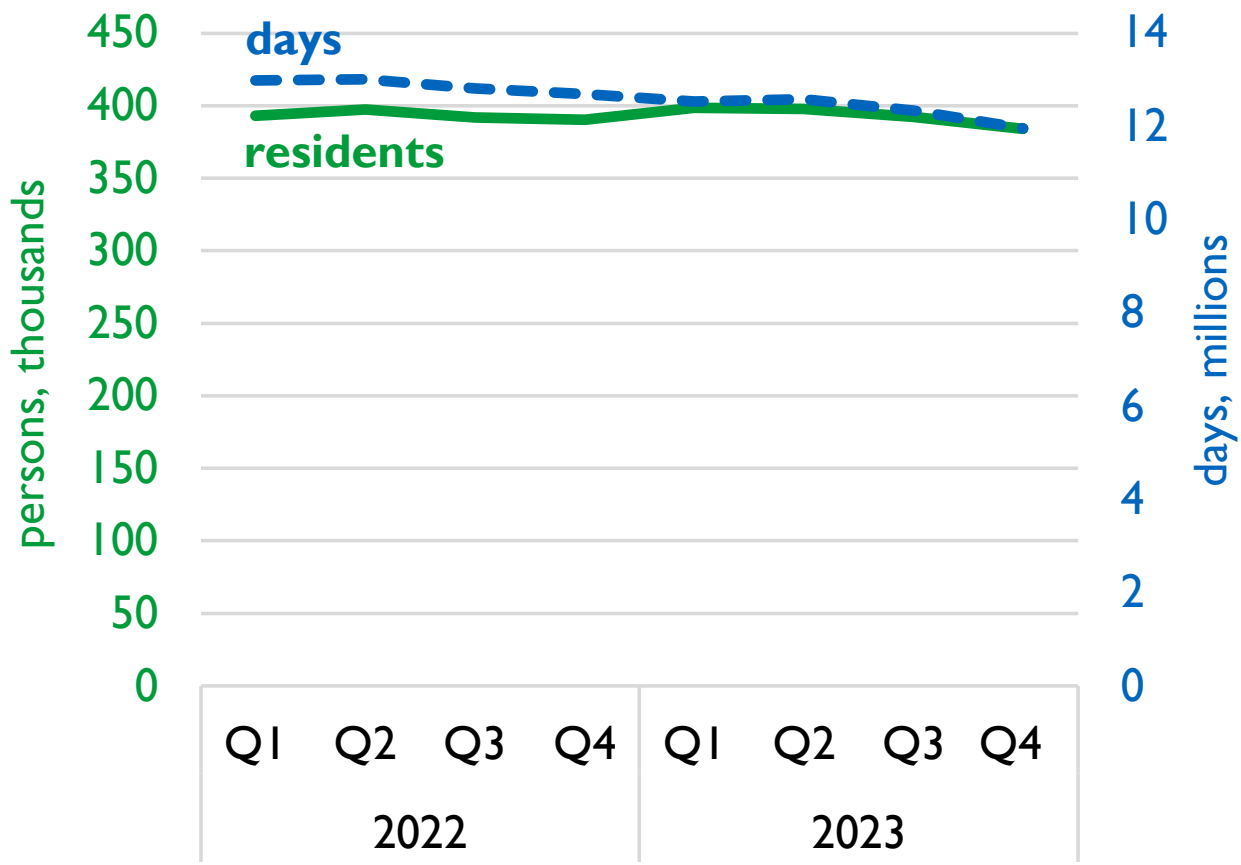
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
	2022				2023			
opioid	902,150	919,837	906,432	913,663	880,168	874,750	856,169	880,391
benzodiazepine	594,694	592,217	592,039	577,790	576,394	570,675	562,970	560,238
stimulant	685,524	701,322	693,700	693,666	695,353	710,961	714,946	735,642
gabapentinoid	561,001	574,611	581,418	579,072	575,285	576,155	568,789	566,450
nonbenzo sedative hypnotic	172,227	171,729	173,058	170,117	168,836	167,016	165,280	165,154

*All opioids, including drugs not typically used in outpatient settings or otherwise not critical for calculating dosages in MME, such as cough and cold formulas including elixirs, and combination products containing antitussives, decongestants, antihistamines, and expectorants; opiate partial agonists (e.g., buprenorphine) is excluded

Opioid prescriptions

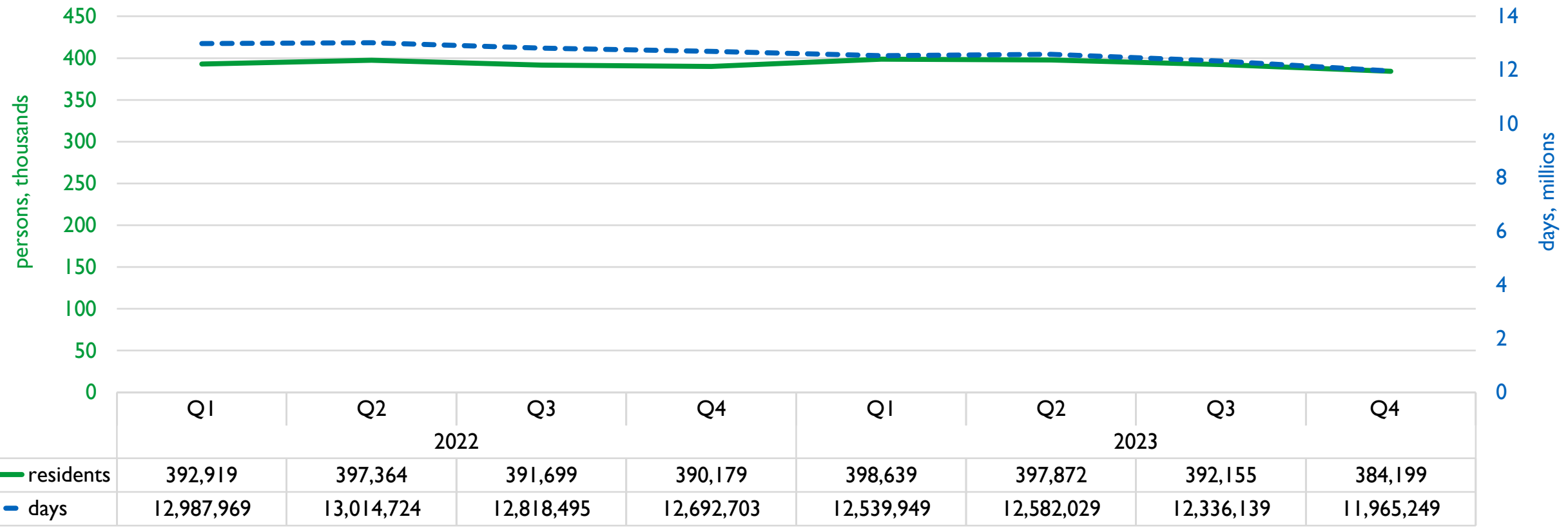
- 384,199 Virginia residents received an opioid prescription in 2023Q4
- 11,965,249 opioid prescription days for commonwealth residents during 2023Q4
- Prescription days or days' supply refers to the number of days of medication prescribed

Opioid prescriptions for Virginia residents, 2022Q1-2023Q4



*CDC-defined opioids, excludes: 1) drugs not typically used in outpatient settings or otherwise not critical for calculating dosages in MME, such as cough and cold formulas including elixirs, and combination products containing antitussives, decongestants, antihistamines, and expectorants; 2) opiate partial agonists (e.g., buprenorphine)

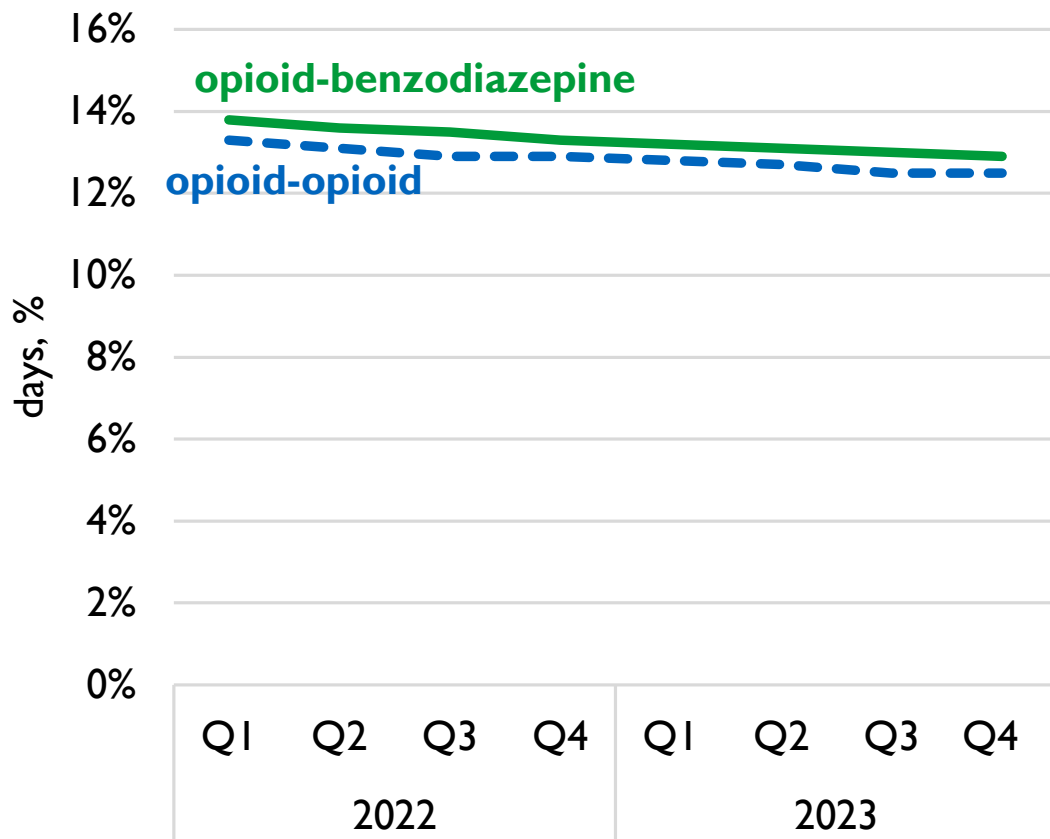
Opioid prescriptions



*CDC-defined opioids, excludes: 1) drugs not typically used in outpatient settings or otherwise not critical for calculating dosages in MME, such as cough and cold formulas including elixirs, and combination products containing antitussives, decongestants, antihistamines, and expectorants; 2) opiate partial agonists (e.g., buprenorphine)

Overlapping prescriptions

Overlapping opioid and opioid-benzodiazepine prescription days, 2022Q1-2023Q4



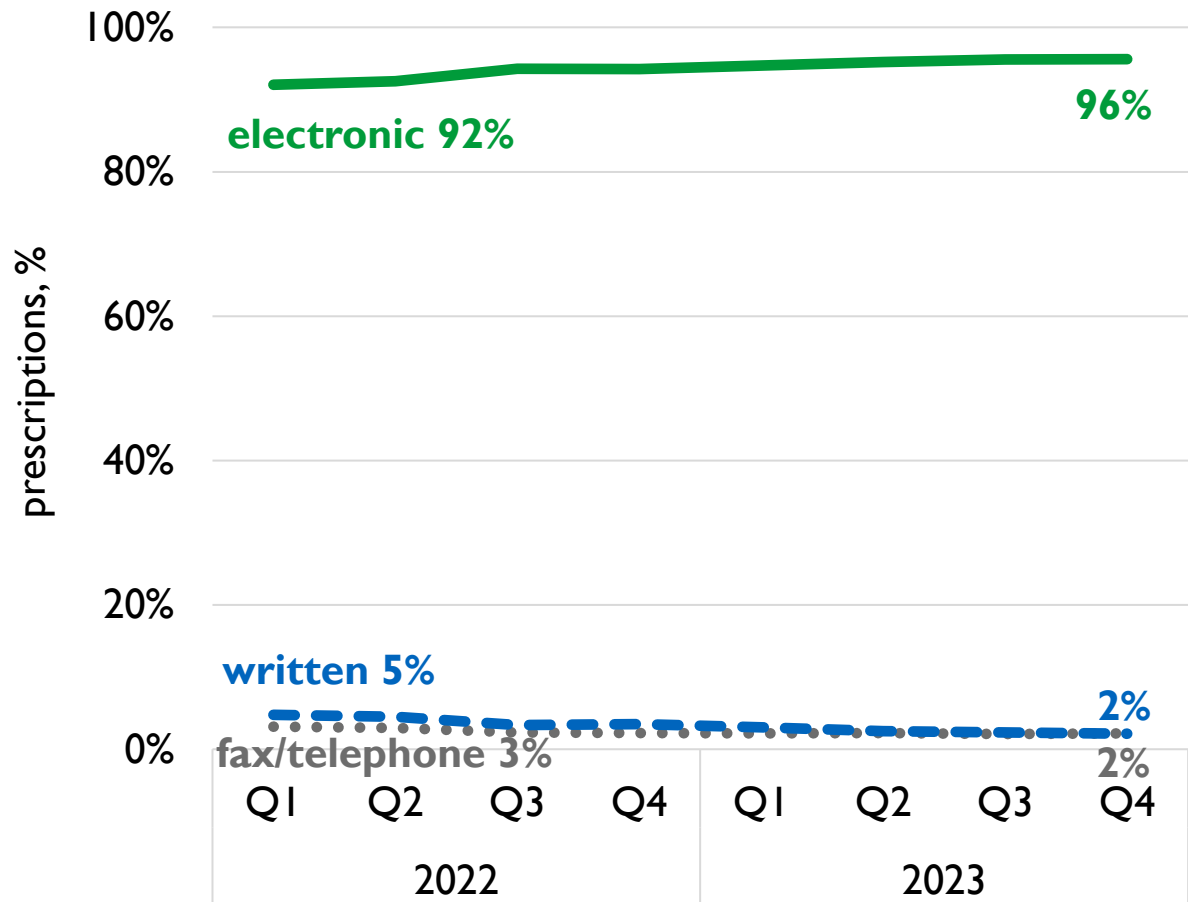
- Overlapping **opioid** prescriptions, which increase a patient's MME, and concurrent **opioid and benzodiazepine** prescribing increases the risk of overdose
- **Opioid-benzo** days and **opioid-opioid** days were nearly comparable

*CDC-defined opioids, excludes: 1) drugs not typically used in outpatient settings or otherwise not critical for calculating dosages in MME, such as cough and cold formulas including elixirs, and combination products containing antitussives, decongestants, antihistamines, and expectorants; 2) opiate partial agonists (e.g., buprenorphine)

Electronic prescribing for opioids

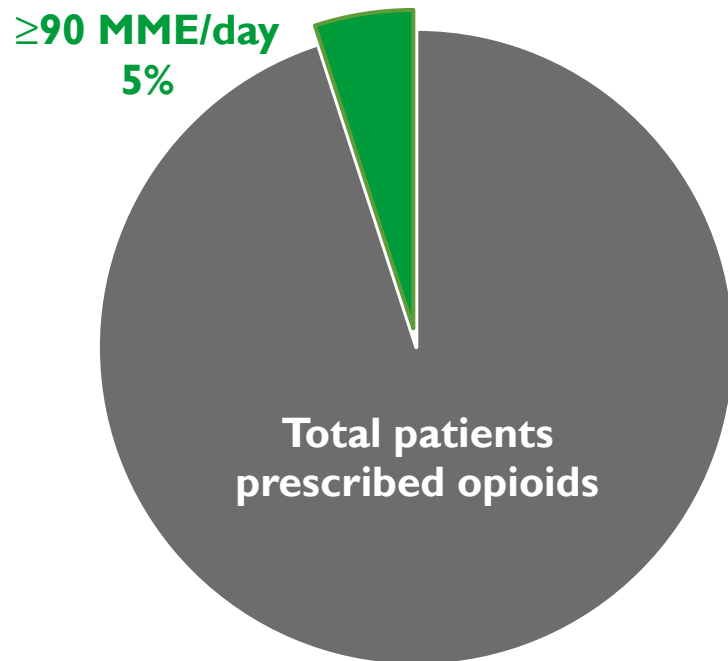
- Beginning July 1, 2020 any prescription containing an opioid must be transmitted electronically from the prescriber to the dispenser (*Code of Virginia § 54.1-3408.02*)
- 96% of opioid prescriptions were transmitted **electronically** in 2023Q4

Opioid prescriptions by transmission type, 2022Q1-2023Q4



Patients receiving ≥ 90 MME/day

Patients receiving ≥ 90 MME/day, 2023Q4



- Morphine milligram equivalent (MME) allows comparison between the strength of different types of opioids
 - CDC guidelines specify dosages of ≥ 90 /day should be avoided due to risk for fatal overdose
- 5% of opioid prescription recipients had an average dose ≥ 90 MME/day (2023Q4)

*CDC-defined opioids, excludes: 1) drugs not typically used in outpatient settings or otherwise not critical for calculating dosages in MME, such as cough and cold formulas including elixirs, and combination products containing antitussives, decongestants, antihistamines, and expectorants; 2) opiate partial agonists (e.g., buprenorphine)

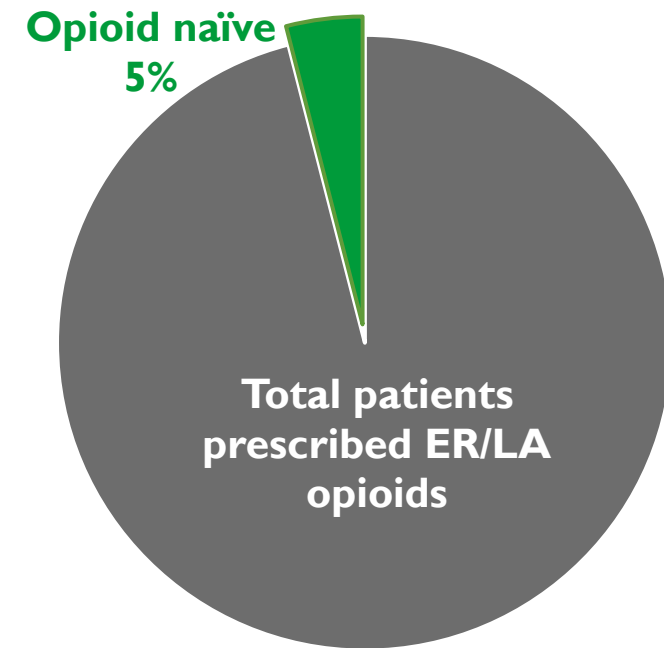
Reference: Dowell D, Haegerich TM, Chou R. CDC Guideline for Prescribing Opioids for Chronic Pain — United States, 2016. MMWR Recomm Rep 2016;65(No. RR-1):1–49.

DOI: <http://dx.doi.org/10.15585/mmwr.rr6501e1>

Opioid naïve patients receiving ER/LA opioids

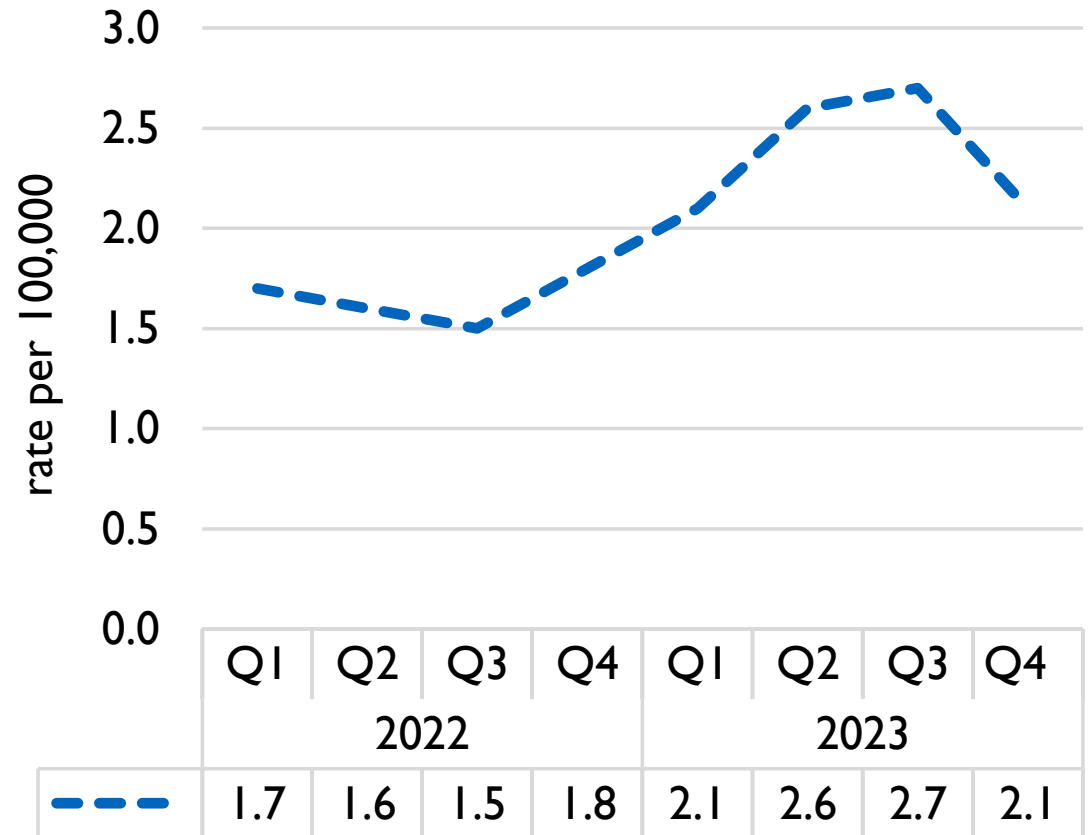
- Extended-release or long acting (ER/LA) opioids put patients at greater risk of respiratory depression and overdose compared to immediate-release (IR)
 - Opioid naïve patients are at particularly high risk of overdose from ER/LA opioids
- Opioid naïve refers to patients who have not taken an opioid medication within the previous 45 days

Opioid naïve patients receiving ER/LA opioids, 2023Q4



Multiple provider episodes for opioids

- ≥ 5 prescribers and ≥ 5 pharmacies in a 6-month period
- Can be an indicator of doctor shopping and/or inadequate care coordination
- Between 2018Q1 and 2023Q4 dropped from 10.6 to 2.1 per 100,000



*CDC-defined opioids, excludes: 1) drugs not typically used in outpatient settings or otherwise not critical for calculating dosages in MME, such as cough and cold formulas including elixirs, and combination products containing antitussives, decongestants, antihistamines, and expectorants; 2) opiate partial agonists (e.g., buprenorphine)

Opioid prescriptions exceeding 120 MME/day

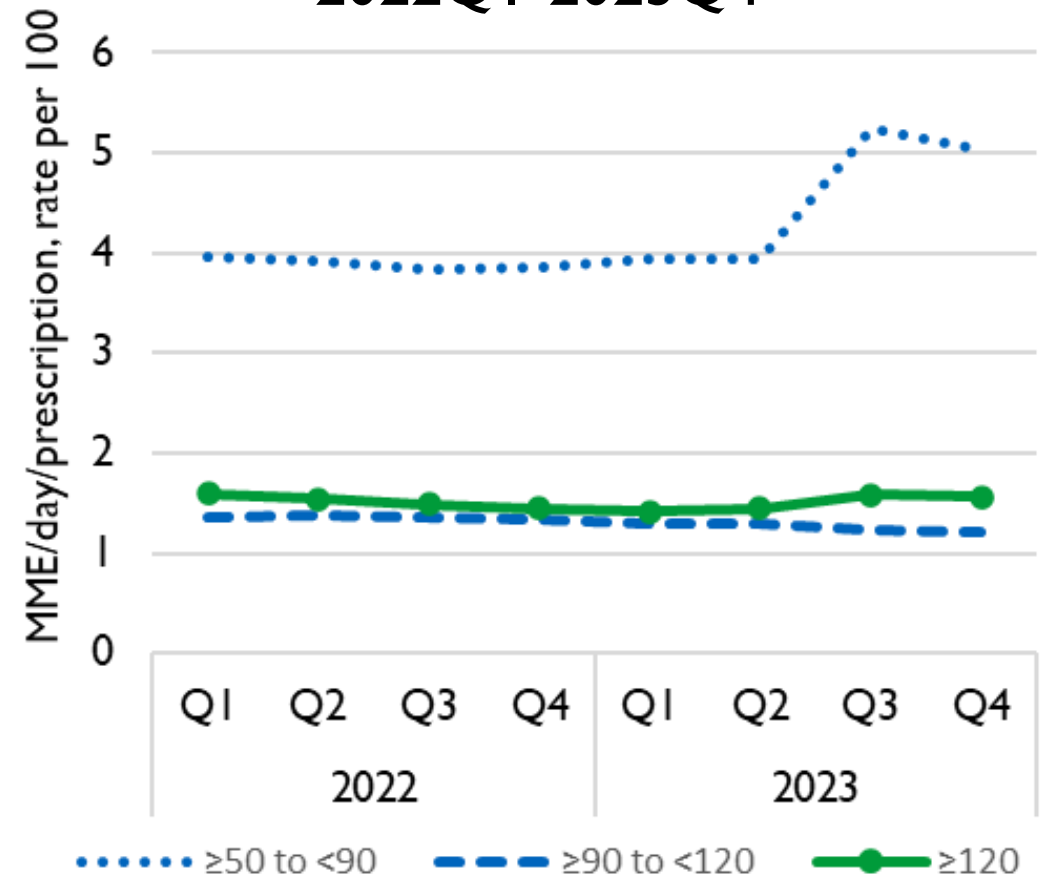
- *Regulations Governing Prescribing of Opioids and Buprenorphine (18VAC85-21-70)*

- Specific requirements of prescribers if exceeding 120 MME/d

- % change, 2022Q1-2023Q4

.....	≥50 to <90	27%
----	≥90 to <120	-12%
—●—	≥120	- 2%

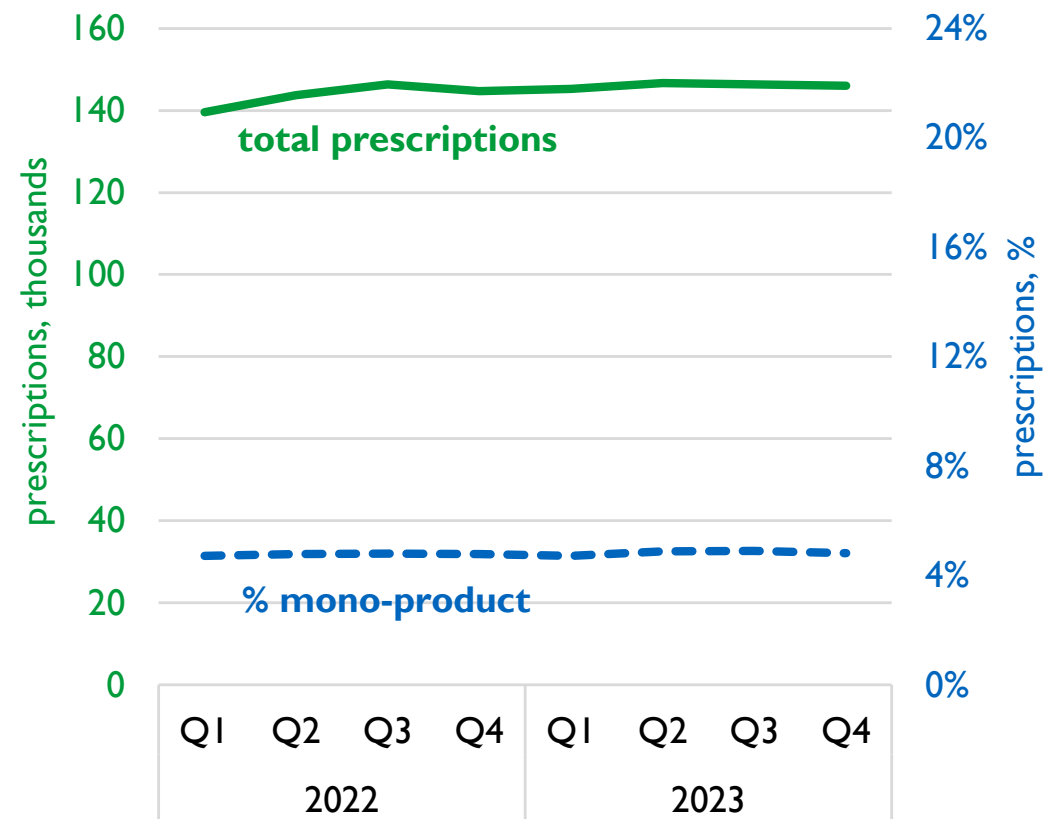
Opioid prescriptions by MME/day, 2022Q1-2023Q4



Buprenorphine

- *Regulations Governing Prescribing of Opioids and Buprenorphine (18VAC85-21-10, effective March 2017)*
 - Limited prescribing buprenorphine without naloxone (mono-product) for opioid use disorder (OUD)
- Buprenorphine is an opiate receptor partial agonist
- Immediate decline in mono-product prescriptions and continues to decrease marginally (2% in 2023Q4)

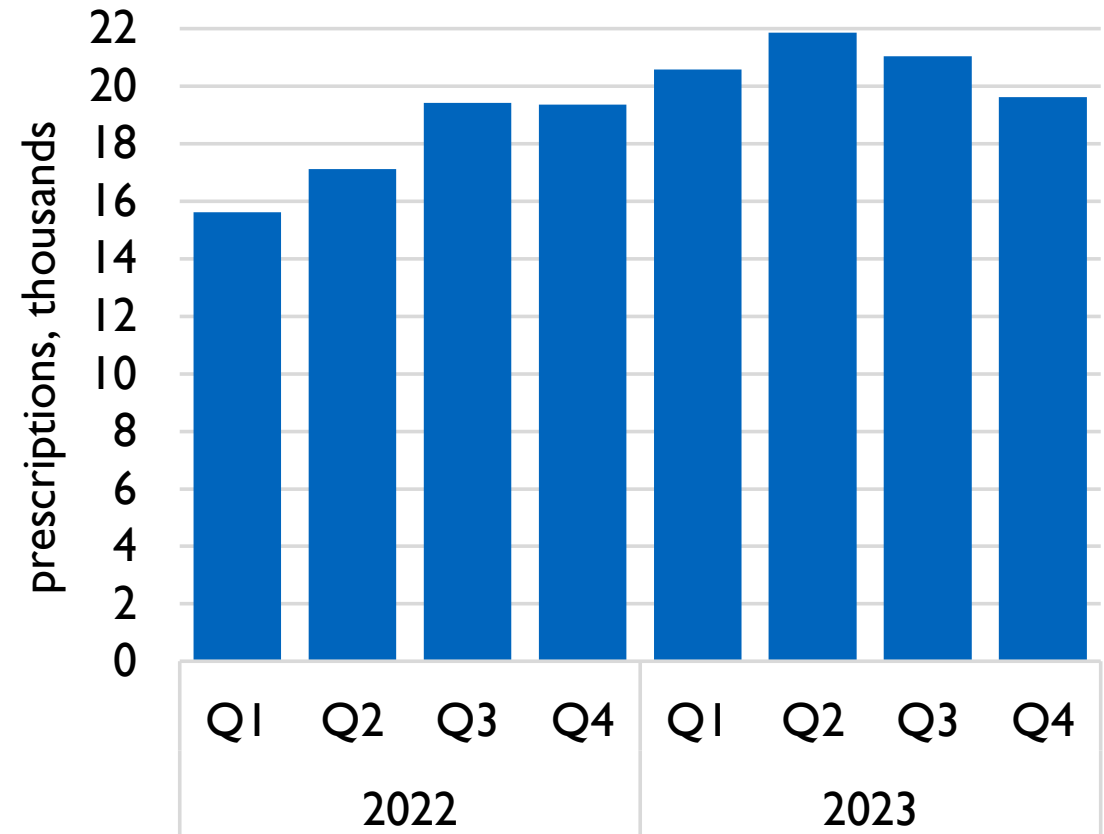
Buprenorphine prescribing for OUD, 2022Q1-2023Q4



Naloxone

- Naloxone became reportable to PMP as of July 1, 2018
- In March 2023, the Food and Drug Administration (FDA) approved Narcan[®] for over-the-counter use. Actual over-the-counter sales began in September of 2023.

Naloxone prescriptions dispensed in pharmacies, 2022Q1-2023Q4



Technical notes

- Covered substances
 - Schedule II-V medications, naloxone
 - Gabapentin is a Schedule V in Virginia
 - Cannabis from in state pharmaceutical processors
- PMP relies on pharmacies and other dispensers to submit accurate, timely information. Dispensers can correct or submit post-dated data at any time; therefore, PMP data is expected to change.
- Quarters referenced are based upon the calendar year.
- Buprenorphine is an opiate receptor partial agonist and is excluded from the opiate receptor full agonist analyses (i.e., “opioid”)
- Contact
 - Phone: 804.367.4514
 - Fax: 804.527.4470
 - Email: pmp@dhp.virginia.gov
 - PMP website:
<https://www.dhp.virginia.gov/pmp>
 - PMP database:
<https://virginia.pmpaware.net/login>