VIRGINIA PRESCRIPTION MONITORING PROGRAM

QUARTERLY REPORT

April 1-June 30, 2019

THE Virginia Prescription Monitoring Program (PMP) is a 24/7 database containing information on dispensed Schedule II-V prescriptions, naloxone, drugs of concern, and cannabidiol oil or THC-A oil from an in state pharmaceutical processor. The primary purpose of the PMP is to promote safe prescribing and dispensing practices for covered substances by providing timely and essential information to healthcare providers. The law governing Virginia's PMP is found in *Code of Virginia* §54.1-25.2 and applicable regulations at 18VAC76-20.

Key Findings for the First Quarter (2019Q2)

- Enhancements to the PMP are ongoing and improvements to ease of use have contributed positively to overall utilization. Requests for a patient's prescription history exceeded 13 million and were consistent with the previous quarter.
- Prescribers queried the patient's prescription history before issuing 1,541,099 new opioid or benzodiazepine prescriptions this quarter. This was an increase of 9% from the previous quarter and 94% since 2018Q1.
- Over six percent of Virginians, or 528,932 residents, received an opioid prescription.
- Through this period, 31,547 prescribers wrote at least one prescription for an opioid medication dispensed by a Virginia-licensed pharmacy.
- Long acting or extended-release opioids put patients at greater risk of respiratory depression and overdose compared to immediate-release. Patients who have not taken an opioid medication within the previous 45 days, referred to as opioid naïve, are at particularly high risk of overdose from these types of opioids. Of the 51,284 patients prescribed long acting/extended-release opioids, 5,344 or 10% were opioid naïve.

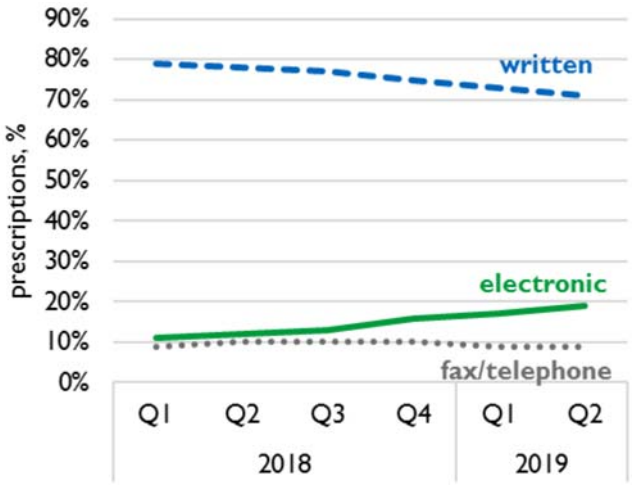
Multiple Provider Episodes for Opioids

Multiple provider episodes (MPEs), defined as five or more prescribers and five or more pharmacies in a six month period, can be an indicator of doctor shopping and/or inadequate care coordination. MPEs occurred at a rate of 8.8 per 100,000 residents throughout the quarter. This rate remained stable throughout 2018 to present.

Electronic Prescribing for Opioids

Pursuant to *Code of Virginia* §54.1-3408.02, beginning July 1, 2020 any prescription containing an opioid must be transmitted electronically (e-prescribing) from the prescriber to the dispenser. Currently, prescriptions for Schedule II controlled substances (opioids, stimulants) must be written (§54.1-3410) or electronic. Although only 19% were electronic in 2019Q2 (among prescriptions with a mode of transmission reported), this represents a 61% increase since 2018Q1 (11%). By comparison, 57% of gabapentin prescriptions were transmitted electronically. Because gabapentin is not classified as a federally controlled substance, the electronic transmission of gabapentin is not subject to the same technological security standards, promulgated by the Drug Enforcement Administration, applicable to opioids. While many practitioners are using e-prescribing, fewer are able to e-prescribe controlled substances.

Opioid prescriptions by transmission type, January 2018-June 2019

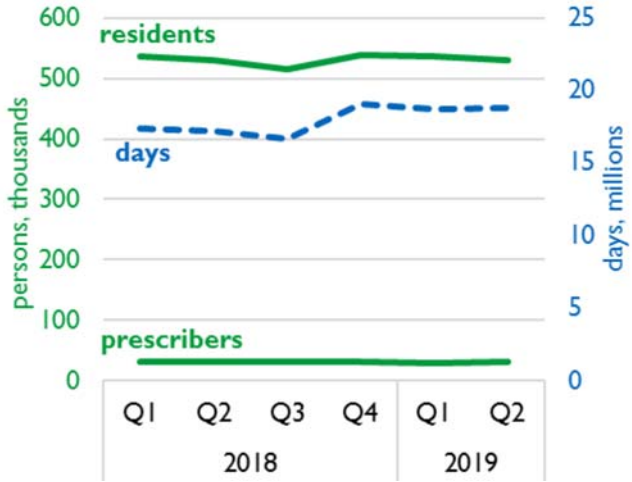


Opioid Prescriptions

The Virginia PMP recorded 528,932 Virginia residents received an opioid prescription in 2019Q2 from 31,547 prescribers. Both the number of residents and prescribers has remained stable.

The Virginia PMP recorded 18,760,195 opioid prescription days for commonwealth residents during 2019Q2. This remained constant in comparison with the previous quarter but represents an 8% increase since 2018Q1. Prescription days or days' supply refers to the number of days of medication prescribed. This quantity is enough for every Virginia resident to have a two day supply of opioid medications.

Opioid prescriptions for Virginia residents, January 2018-June 2019



Morphine milligram equivalent (MME) is a way to calculate the total amount of opioids and account for differences in opioid drug type and strength. As MME increases, overdose risk increases. The Centers for Disease Control and Prevention (CDC) guidelines specify that dosages of

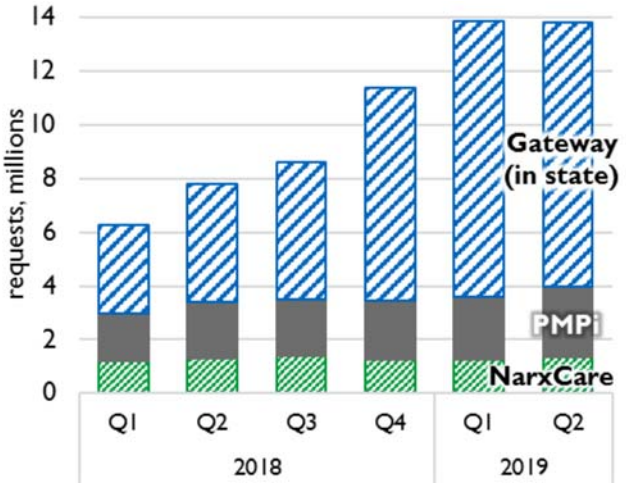
90 MME per day or greater should be avoided due to risk for fatal overdose. Among Virginians receiving opioid prescriptions, 7% of patients had an average dose at or above 90 MME per day. The average MME per day per prescription for state residents was 41. Buprenorphine used to treat opioid dependence or addiction is excluded.

Overlapping opioid prescriptions and concurrent opioid and benzodiazepine prescribing increases the risk of overdose. The decline from 2018Q1 to 2019Q2 in percentage of days with overlapping opioid-benzodiazepine prescriptions from 16.6% to 14.5% indicates progress toward smarter, safer prescribing. Concurrent opioid-opioid prescription days remained relatively constant at 15% during the same period.

Database Utilization

Authorized users of the PMP are able to search within the database for a patient's prescription history; each search is referred to as a request. There are three types of requests: NarxCare (previously AWARxE), interoperability (PMPi), and integration (Gateway). NarxCare requests are those that are submitted via the web-based application. PMPi facilitates interoperability and interstate data sharing among states' PMPs. Gateway integrates PMP data into electronic health records and is viewable within the clinical workflow. Integration within the workflow is a significant advancement in ease of use and efficiency and has contributed positively to increasing utilization. Quarterly Gateway integration requests numbered just shy of 10 million and comprised 71% of total PMP use. In 2019Q2, total requests were approximately equivalent to the previous quarter and nearly tripled since 2018Q1.

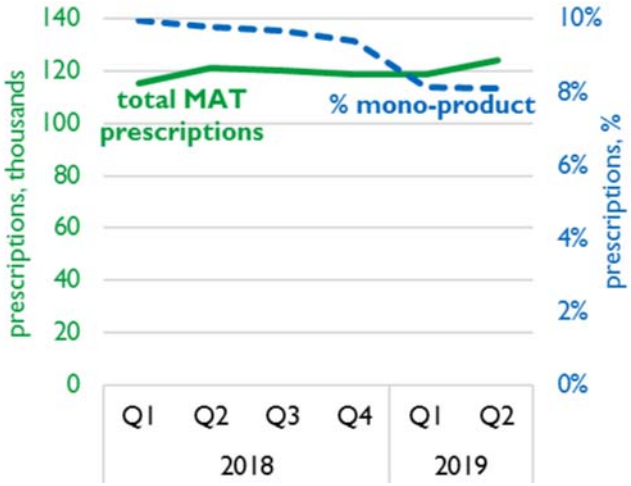
Prescription history requests by type, January 2018-June 2019



Buprenorphine for Opioid Use Disorder

Medication-assisted treatment (MAT) is the use of medications, like buprenorphine, in combination with counseling and behavioral therapies to treat opioid use disorders and prevent opioid overdose. Increasing numbers of buprenorphine prescriptions in general indicates increased treatment usage (8% since 2018Q1); however buprenorphine without naloxone (mono-product buprenorphine) may be abused. Therefore, the pronounced decline in mono-product buprenorphine prescriptions (19% since 2018Q1) indicates improved prescribing practices.

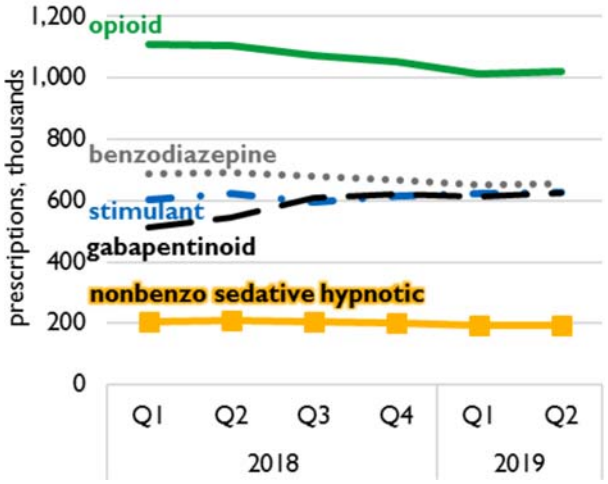
Buprenorphine prescribing for MAT, January 2018-June 2019



Drug Class

Five drug classes (opioid, benzodiazepine, stimulant, gabapentinoid, and nonbenzo sedative hypnotics) represent 90% of all dispensations reported to PMP. Nonbenzo sedative hypnotics are sleeping medications such as zolpidem. Prescriptions for stimulants and gabapentinoids increased by 4% and 18%, respectively, since 2018Q1. In contrast, prescriptions for each of the following decreased by the percentage indicated: benzodiazepine (5%), nonbenzo sedative hypnotics (8%), and opioid (8%).

Prescriptions dispensed by drug class, January 2018-June 2019



Methods, Considerations, and Limitations

This quarterly report represents a snapshot of data as of August 15, 2019. The 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. Components of this report may not be comparable to previous publications due to case definition revisions or reporting artifacts. Quarters referenced are based upon the calendar year.

Please direct questions concerning this report to pmp@dhp.virginia.gov.