Quarterly Report
April 1 - June 30, 2020
2020Q2
Virginia Prescription Monitoring Program
Key Findings for the Second Quarter (2020Q2)

- The disruption to the healthcare system due to COVID-19 also impacted observed trends in PMP use and dispensations. There was a 12% reduction in PMP requests and 13% decrease in opioid prescriptions compared to 2020Q1.

- Through this period, 27,649 prescribers wrote at least one prescription for an opioid medication dispensed by a Virginia-licensed pharmacy. Opioid prescribers averaged 30,055 between 2019Q1 and 2020Q1.

- Almost five percent of Virginians, or 394,634 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
- Increased 9% in 2020Q2 compared to 2019Q1
- Rapid rise in utilization of the PMP is primarily the result of expansions in integration within the electronic health record and pharmacy software applications
  - 72% of total requests are through an integrated application
Increasing PMP utilization

Prescription history requests by type, 2019Q1-2020Q2

- **Gateway**: integrates PMP data within health record clinical workflow
- **PMPi**: interoperability among states' PMPs
- **NarxCare (previously AWARxE)**: web-based application
- **PMPi**: interoperability among states' PMPs

<table>
<thead>
<tr>
<th></th>
<th>Q1</th>
<th>Q2</th>
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<th>Q1</th>
<th>Q2</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Gateway</strong> (in state)</td>
<td>10,293,612</td>
<td>9,838,711</td>
<td>10,512,500</td>
<td>12,360,177</td>
<td>12,656,690</td>
<td>10,928,283</td>
</tr>
<tr>
<td><strong>PMPi</strong></td>
<td>2,304,254</td>
<td>2,631,224</td>
<td>2,997,430</td>
<td>2,833,550</td>
<td>2,873,530</td>
<td>2,543,759</td>
</tr>
<tr>
<td><strong>NarxCare</strong></td>
<td>1,275,636</td>
<td>1,332,175</td>
<td>1,396,875</td>
<td>1,359,457</td>
<td>1,614,970</td>
<td>1,618,420</td>
</tr>
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</table>

**Gateway** integrates PMP data within health record clinical workflow. **NarxCare** (previously AWARxE) is a web-based application. **PMPi** is interoperability among states' PMPs.
Drug class

Percent change by drug class 2019Q1-2020Q2

- Opioid* ↓ 13%
- Benzodiazepine ↓ 4%
- Stimulant ↓ 6%
- Gabapentinoid ↓ 15%
- Nonbenzo sedative hypnotics ↓ 5%

*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, 2019Q1-2020Q2

<table>
<thead>
<tr>
<th>Drug Class</th>
<th>2019Q1</th>
<th>2019Q2</th>
<th>2019Q3</th>
<th>2019Q4</th>
<th>2020Q1</th>
<th>2020Q2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Opioid</td>
<td>1,143,469</td>
<td>1,103,293</td>
<td>1,064,619</td>
<td>1,089,898</td>
<td>1,065,206</td>
<td>923,984</td>
</tr>
<tr>
<td>Benzodiazepine</td>
<td>652,621</td>
<td>654,493</td>
<td>654,057</td>
<td>643,239</td>
<td>654,955</td>
<td>626,449</td>
</tr>
<tr>
<td>Stimulant</td>
<td>624,121</td>
<td>627,412</td>
<td>619,779</td>
<td>641,573</td>
<td>654,359</td>
<td>584,884</td>
</tr>
<tr>
<td>Gabapentinoid</td>
<td>612,037</td>
<td>623,280</td>
<td>502,199</td>
<td>520,480</td>
<td>526,641</td>
<td>519,113</td>
</tr>
<tr>
<td>Nonbenzo sedative hypnotic</td>
<td>194,179</td>
<td>191,287</td>
<td>190,267</td>
<td>188,852</td>
<td>189,704</td>
<td>184,901</td>
</tr>
</tbody>
</table>

*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

- 394,634 Virginia residents received an opioid prescription in 2020Q2 from 27,649 unique prescribers
- 14,691,492 opioid prescription days for commonwealth residents during 2020Q2
- Prescription days or days’ supply refers to the number of days of medication prescribed

\*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

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<tr>
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<th>Q3</th>
<th>Q4</th>
<th>Q1</th>
<th>Q2</th>
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<td></td>
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<tr>
<td>residents</td>
<td>490,869</td>
<td>490,843</td>
<td>477,642</td>
<td>465,586</td>
<td>439,218</td>
<td>394,634</td>
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<tr>
<td>prescribers</td>
<td>29,211</td>
<td>30,502</td>
<td>30,638</td>
<td>30,487</td>
<td>29,438</td>
<td>27,649</td>
</tr>
<tr>
<td>days</td>
<td>16,568,985</td>
<td>16,545,969</td>
<td>16,130,148</td>
<td>15,746,518</td>
<td>15,084,143</td>
<td>14,691,492</td>
</tr>
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Overlapping prescriptions

Overlapping opioid prescriptions, which increase a patient’s MME, and concurrent opioid and benzodiazepine prescribing increases the risk of overdose

- Overlapping opioid prescriptions
- Opioid-benzo and opioid-opioid days were comparable in 2020Q2 to 2019Q1 following a year of trending downward

*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

- As of 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)
  - 52% of opioid prescriptions were electronic in 2020Q2
    - Surpassed written prescriptions

Analysis restricted to prescriptions reporting a mode of transmission
Code of Virginia § 54.1-3408.02 https://law.lis.virginia.gov/vacode/title54.1/chapter34/section54.1-3408.02/
Patients receiving ≥90 MME/day

• 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
  • 7% of opioid prescription recipients had an average dose ≥90 MME/day (2020Q2)

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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

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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
- Dropped from 7.3 to 3.8 per 100,000 residents in since 2019Q1

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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, 2019Q1-2020Q2
  - ≥50 to <90: -15%
  - ≥90 to <120: -14%
  - ≥120: -17%
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 that has since stabilized (7% in 2020Q2)

Buprenorphine prescribing for OUD, 2017Q1-2020Q2

Naloxone

- State Health Commissioner’s standing order authorizes Virginia pharmacies to dispense naloxone without a prescription
- 10% of total dispensations in 2020Q2 were dispensed using the standing order
- Naloxone became reportable to PMP as of July 1, 2018
  - Narcan® accounts for 99% of total naloxone dispensations

<table>
<thead>
<tr>
<th>Quarter</th>
<th>2019</th>
<th>2020</th>
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<tbody>
<tr>
<td>Q1</td>
<td>9%</td>
<td>10%</td>
</tr>
<tr>
<td>Q2</td>
<td>10%</td>
<td>13%</td>
</tr>
<tr>
<td>Q3</td>
<td>13%</td>
<td>7%</td>
</tr>
<tr>
<td>Q4</td>
<td>9%</td>
<td>10%</td>
</tr>
</tbody>
</table>

Naloxone prescriptions dispensed in pharmacies by prescriber, 2019Q1-2020Q2
Technical notes

• Covered substances
  • Schedule II-V medications, naloxone
  • Gabapentin is a Schedule V in Virginia
  • Cannabidiol and THC-A oils from in state pharmaceutical processor

• 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”)

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  • PMP database: https://virginia.pmpaware.net/login