



# VERMONT PRESCRIPTION MONITORING SYSTEM

## QUARTERLY REPORT 4<sup>TH</sup> QUARTER 2018

# What is the VPMS?

Vermont's prescription drug monitoring program, known as the Vermont Prescription Monitoring System (VPMS) is a statewide electronic database of controlled substance prescriptions dispensed from Vermont-licensed pharmacies.

VPMS is a clinical tool that exists to promote the appropriate use of controlled substances for legitimate medical purposes, while deterring the misuse, abuse, and diversion of controlled substances.

VPMS also serves as a surveillance tool that is used to monitor statewide trends in the prescribing, dispensing, and use of controlled substances. This report summarizes VPMS surveillance data for all Schedule II – IV prescriptions that were dispensed from Vermont-licensed pharmacies from 10/01/2018 through 12/31/2018. Due to the timing of when data was reported to VPMS, some prescriptions may not be included on this report. Final data is reconciled in the Annual Report totals.

Please see the Appendix for more information about the VPMS and the data included in this report.

# Morphine Milligram Equivalents (MME)

## Why does this report use MME?

Morphine Milligram Equivalent (MME) is the amount of morphine equivalent to the strength of the opioid dose prescribed. Using MME allows comparison between types and strengths of opioids.

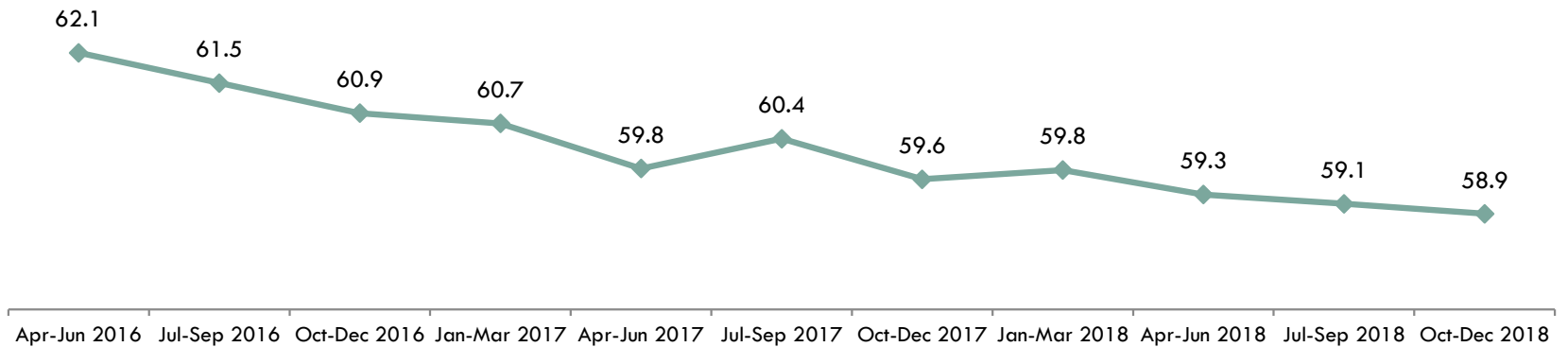
For instance, the following medications each provide 50 MME/day:

- 10 tablets of hydrocodone/acetaminophen 5/300
- 2 tablets of oxycodone sustained-release 15 mg
- <3 tablets of methadone 5 mg

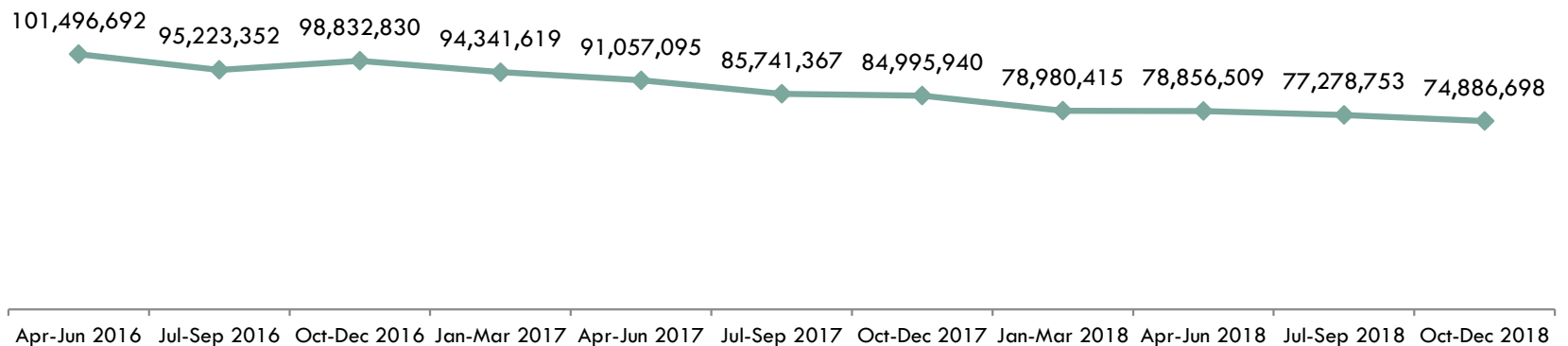
The Vermont Department of Health's [\*Rule Governing the Prescribing of Opioids for Pain\*](#) sets MME limits for first-time acute pain prescriptions in order to ensure that the least amount of opioids are prescribed in order to appropriately manage the patient's pain. The [\*CDC Guideline for Prescribing Opioids for Chronic Pain\*](#) states that lower doses are associated with lower overdose risk and higher doses don't necessarily add benefits for pain control.

# Statewide VPMS Quarterly Trends

## Vermont Average Daily MME Per Prescription by Quarter

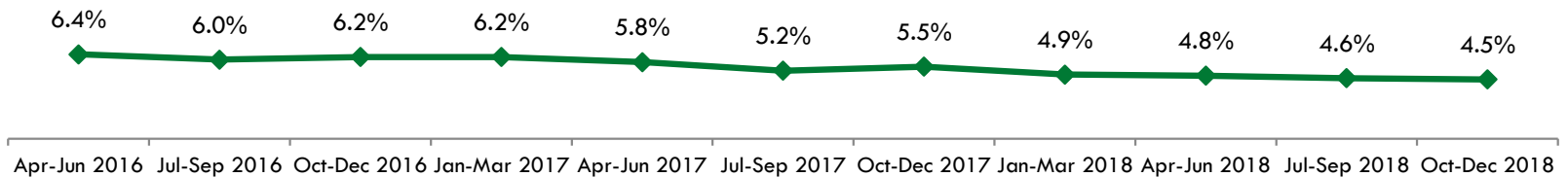


## Vermont Total MME Dispensed by Quarter



# Statewide VPMS Quarterly Trends

Percent of Vermont Population Receiving at Least One Opioid Analgesic Prescription by Quarter



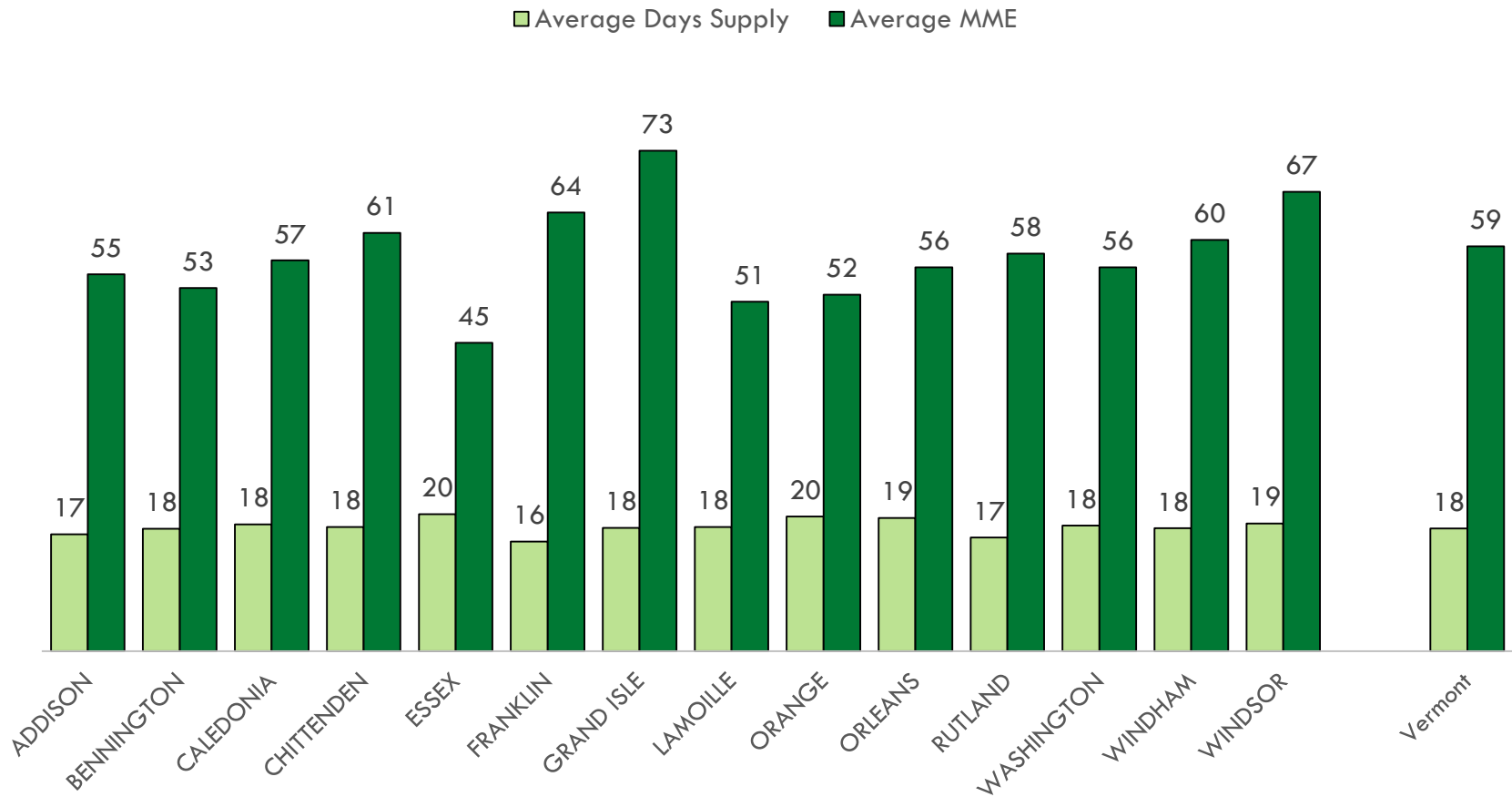
# Percent of Population Receiving At Least One Prescription in Drug Class, October-December 2018

	OPIOID ANALGESIC	MAT	BENZODIAZEPINE	STIMULANT
<b>ADDISON</b>	4.2%	0.8%	3.6%	2.2%
<b>BENNINGTON</b>	5.3%	1.4%	5.3%	3.3%
<b>CALEDONIA</b>	4.7%	0.5%	3.7%	2.7%
<b>CHITTENDEN</b>	3.9%	0.7%	4.3%	2.8%
<b>ESSEX</b>	3.1%	0.2%	2.5%	1.5%
<b>FRANKLIN</b>	5.5%	1.6%	3.7%	2.0%
<b>GRAND ISLE</b>	5.6%	1.2%	4.3%	2.3%
<b>LAMOILLE</b>	4.9%	1.2%	4.2%	2.6%
<b>ORANGE</b>	3.5%	0.5%	3.4%	1.9%
<b>ORLEANS</b>	5.7%	0.5%	5.0%	2.9%
<b>RUTLAND</b>	5.5%	1.4%	5.0%	2.4%
<b>WASHINGTON</b>	4.6%	0.7%	5.1%	3.1%
<b>WINDHAM</b>	5.2%	0.7%	5.3%	4.2%
<b>WINDSOR</b>	3.1%	0.8%	3.2%	1.7%
<b>Vermont</b>	4.5%	0.9%	4.3%	2.6%

Opioid Analgesic: Opioid for pain relief  
 MAT: Buprenorphine to treat opioid use disorders

Benzodiazepine: Sedative for anxiety, insomnia, & other conditions  
 Stimulants: Medication to increase alertness, attention, energy

# Average Days' Supply and Daily Morphine Milligram Equivalent (MME) for Opioid Analgesics, October-December 2018

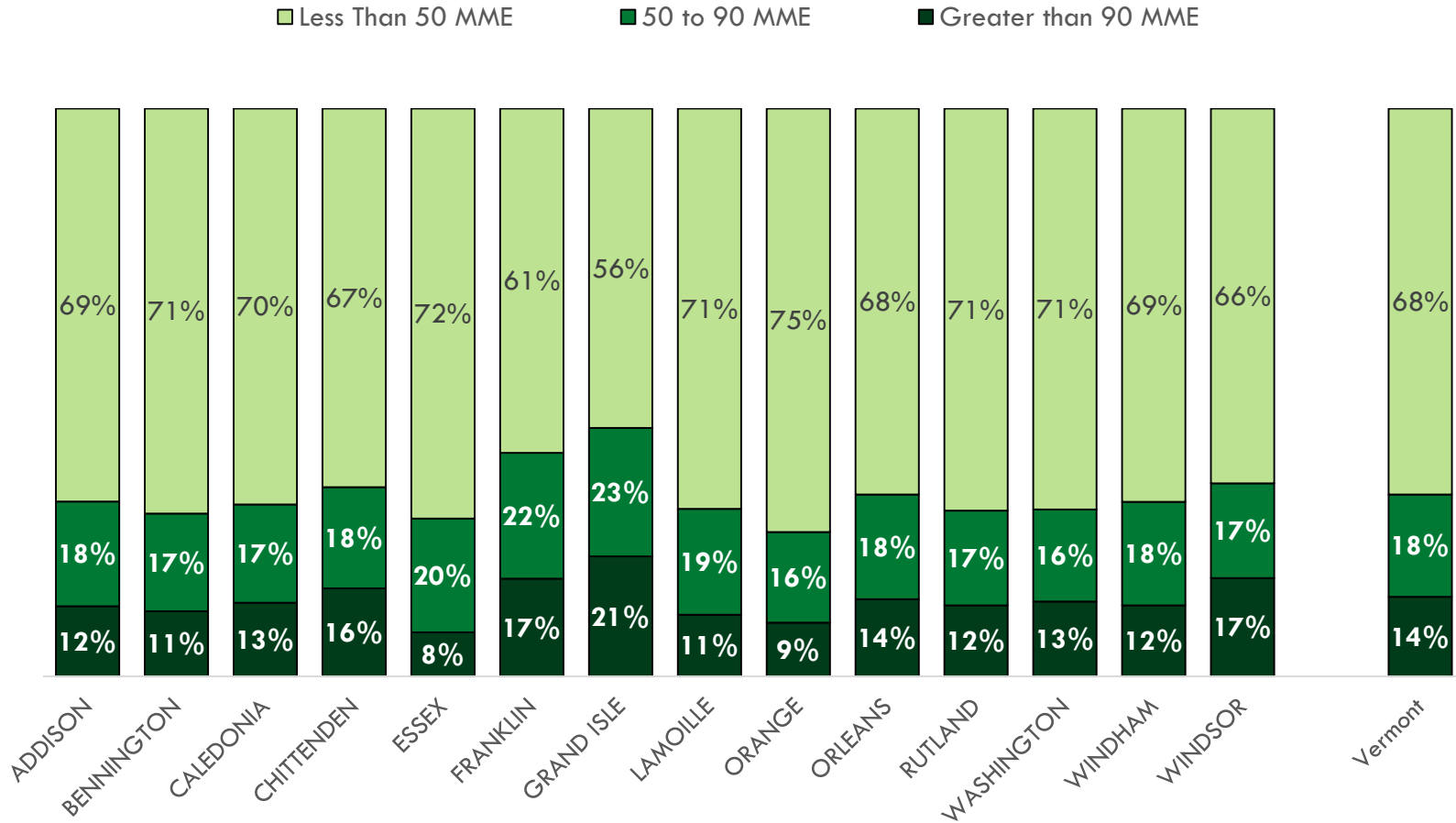


Morphine Milligram Equivalent (MME) – the amount of morphine an opioid dose is equal to when prescribed, often used as a gauge of the abuse and overdose potential of the amount of opioid that is being given at a particular time\*

Days Supply – the estimated number of days that the medication will last\*

\*See Slide 3 and Appendix for more information

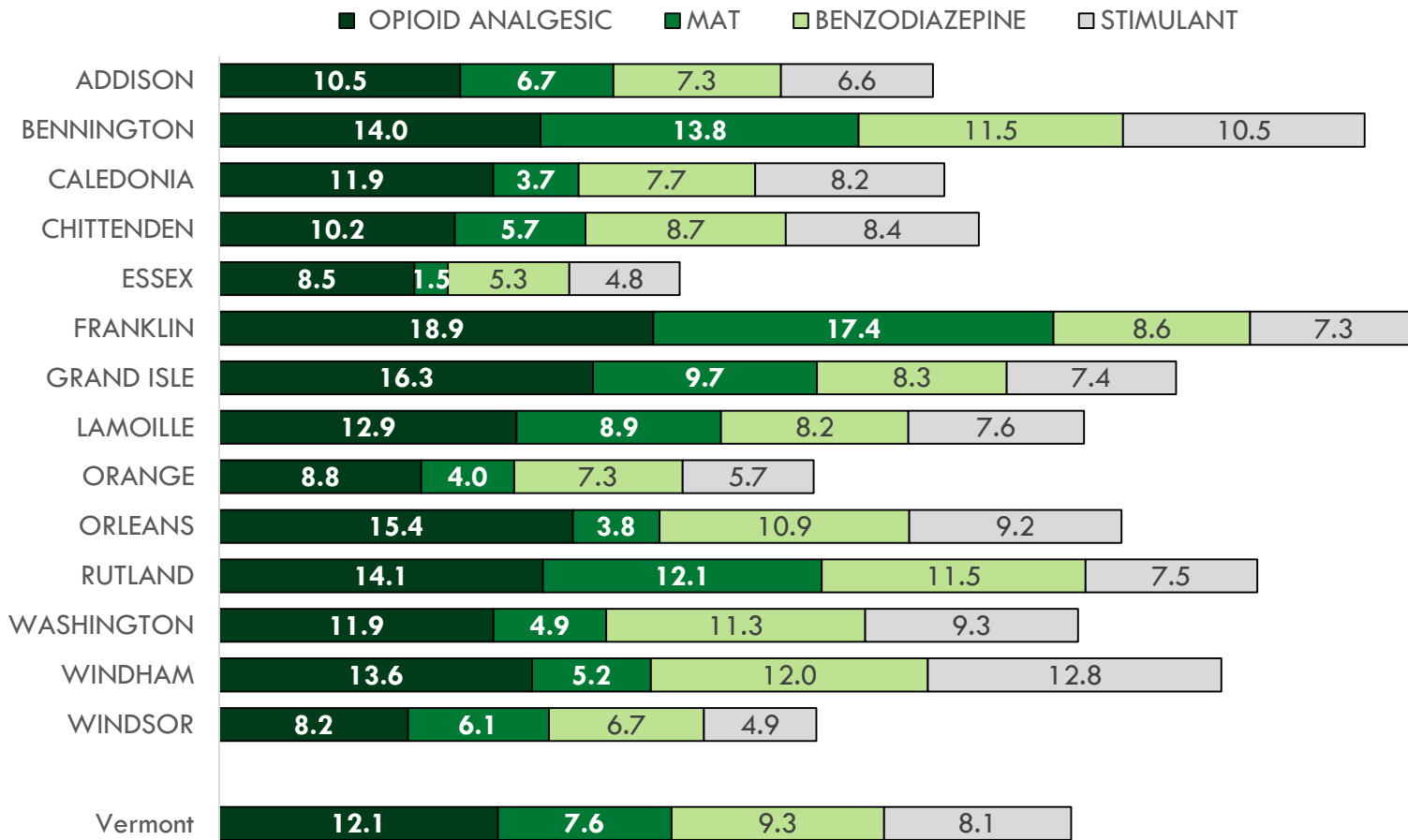
# Proportion of Opioid Analgesic Prescriptions in Daily Morphine Milligram Equivalent (MME) Categories, October-December 2018



Although there is not a single dosage threshold below which overdose risk is eliminated, holding dosages <50 MME/day is associated with a reduction in risk for fatal overdose than at higher prescribed dosages. Most experts also agreed that opioid dosages should not be increased to ≥90 MME/day without careful justification based on diagnosis and on individualized assessment of benefits and risks. (CDC Guideline for Prescribing Opioids for Chronic Pain)



# Rate of Prescriptions Per 100 Residents by Drug Class, October-December 2018



Opioid Analgesic: Opioid for pain relief  
 MAT: Buprenorphine to treat opioid use disorders

Benzodiazepine: Sedative for anxiety, insomnia, & other conditions  
 Stimulants: Medication to increase alertness, attention, energy

# Number of Prescriptions in Each Drug Class, October-December 2018

	OPIOID ANALGESIC	MAT	BENZODIAZEPINE	STIMULANT
<b>ADDISON</b>	3,855	2,451	2,680	2,436
<b>BENNINGTON</b>	4,977	4,922	4,095	3,744
<b>CALEDONIA</b>	3,596	1,120	2,317	2,484
<b>CHITTENDEN</b>	16,634	9,243	14,146	13,630
<b>ESSEX</b>	529	91	329	299
<b>FRANKLIN</b>	9,257	8,535	4,199	3,584
<b>GRAND ISLE</b>	1,138	682	578	515
<b>LAMOILLE</b>	3,277	2,255	2,066	1,935
<b>ORANGE</b>	2,545	1,172	2,123	1,652
<b>ORLEANS</b>	4,129	1,013	2,916	2,479
<b>RUTLAND</b>	8,321	7,166	6,784	4,414
<b>WASHINGTON</b>	6,954	2,857	6,572	5,397
<b>WINDHAM</b>	5,833	2,216	5,165	5,479
<b>WINDSOR</b>	4,524	3,376	3,717	2,700
<b>Vermont</b>	75,593	47,111	57,700	50,765

\*County totals may not add up to the Vermont total; in some instances, county information is not available.

Opioid Analgesic: Opioid for pain relief  
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# Feedback on Quarter 4

Please complete the survey on the usefulness of the **Quarter 4** VPMS Report. Feedback is encouraged and will inform future quarterly reports.

<http://www.surveygizmo.com/s3/3950004/VPMS-Quarterly-Reporting-Usefulness-Survey>

# Contact VPMS

- Data-related questions can be directed to the program analyst, Lela Kretzer at:

[Lela.Kretzer@vermont.gov](mailto:Lela.Kretzer@vermont.gov)

or

(802) 863-6354

- Programmatic questions can be directed to the program manager, Hannah Hauser at:

[Hannah.Hauser@vermont.gov](mailto:Hannah.Hauser@vermont.gov)

or

(802) 652-4147



# APPENDIX



# Vermont Prescription Monitoring System Legislation and Rules

- In 2006, the Vermont Legislature passed Act 205 authorizing the Vermont Department of Health to establish and operate a Prescription Drug Monitoring Program (PDMP).
- Vermont's PDMP, known as the Vermont Prescription Monitoring System (VPMS), became operational in January of 2009.
- Act 205 stipulates that Vermont-licensed pharmacies must upload data on all dispensed Schedule II, III, and IV controlled substances to VPMS.
  - ▣ Schedule II – Drugs with a high potential for abuse, use may potentially lead to severe psychological or physical dependence. These drugs are considered dangerous.
    - Examples include: oxycodone, fentanyl, amphetamine, and methylphenidate.
  - ▣ Schedule III – Drugs with a moderate to low potential for physical or psychological dependence.
    - Examples include: products containing not more than 90 mg of codeine per dosage unit, buprenorphine, and anabolic steroids.
  - ▣ Schedule IV – Drugs with a moderate to low potential for abuse and low risk of dependence.
    - Examples include: clonazepam, diazepam, and alprazolam.
- The Vermont Health Department's VPMS Rule ([http://www.healthvermont.gov/sites/default/files/documents/pdf/REG\\_vpms-20170701.pdf](http://www.healthvermont.gov/sites/default/files/documents/pdf/REG_vpms-20170701.pdf)) outlines:
  - ▣ Required Reporting
  - ▣ Requirements for Pharmacists
  - ▣ Requirements for Prescribers
  - ▣ Access to VPMS Information
  - ▣ Protections, Disclosures and Use of VPMS Information
  - ▣ Enforcement
  - ▣ Training

# VPMS Data and Limitations

- The VPMS is a statewide electronic database of controlled substance prescriptions dispensed from Vermont-licensed pharmacies. Individuals can, and do, fill prescriptions at pharmacies that are not Vermont-licensed. For example, some residents fill prescriptions in New Hampshire. These prescriptions are not included in the VPMS data.
  
- Controlled substance data collected from Vermont-licensed pharmacies includes information on the:
  - Prescribed drug
  - Recipient of the prescribed drug
  - Health care provider who wrote the prescription
  - Pharmacy that dispensed the prescription
  
- VPMS does not currently collect data on controlled substances dispensed from emergency rooms, veterinarian offices or opioid treatment programs (OTPs) that dispense methadone and buprenorphine for opioid addiction, such as those treated in a “hub”. It DOES contain data from office-based opioid treatment at a physician’s office, such as those treated in a “spoke”.
  
- Data submitted to VPMS by pharmacies can contain errors. Each data upload from a pharmacy is screened for errors and sent back to the pharmacy to be corrected if errors are discovered. However, not all errors are found or corrected.
  
- Finally, the VPMS data is for prescriptions dispensed. The VPMS does not contain information regarding when, or if, a prescription was picked up or how a prescribed medication is used.

# Drug Type Definitions

For the purposes of this report, the following drug types were defined using the U.S. Center for Disease Control's treatment classes.

- **Analgesic Opioids**
  - Examples: oxycodone, fentanyl
  - Defined as opioids used in the treatment of pain
- **Medication-Assisted Treatment (MAT) Opioids**
  - Examples: Suboxone
  - Defined as opioids used in medication-assisted treatment of opioid use disorder. With few exceptions, any drug containing buprenorphine is considered a MAT opioid, while other opioids are classified as analgesic opioids.
- **Benzodiazepines**
  - Examples: lorazepam, clonazepam, diazepam
- **Stimulants**
  - Examples: methylphenidate, amphetamine
- **Other**
  - All other schedule II-IV drugs
  - These include: hormones, muscle relaxants, cannabinoids, and non-hypnotic sedatives such as Ambien, among others



# Monitoring Potential Risk of Dependence or Overdose

## Why use “MMEs”?

MMEs are the amount of morphine an opioid dose is equal to when prescribed. Many research experts, federal agencies (e.g., CDC, BJA, SAMHSA) and the VPMS use the amount of daily morphine milligram equivalents (MMEs) prescribed to standardize the dose across different formulations of drugs in order to better understand the abuse and overdose potential of opioid analgesics.

Most experts agreed that, in general, increasing dosages to 50 or more MME/day increases overdose risk without necessarily adding benefits for pain control or function and that clinicians should carefully reassess evidence of individual benefits and risks when considering increasing opioid dosages to  $\geq 50$  MME/day. Most experts also agreed that opioid dosages should not be increased to  $\geq 90$  MME/day without careful justification based on diagnosis and on individualized assessment of benefits and risks.

The Vermont Department of Health’s Rule Governing the Prescribing of Opioids for Pain sets MME limits for first-time acute pain prescriptions in order to ensure that the least amount of opioids are prescribed in order to appropriately manage the patient’s pain.

## Why use “Days Supply”?

According to the CDC’s guidelines for prescribing of opioids for chronic pain, experts noted that in cases of acute pain treatment more than a few days of exposure to opioids significantly increases hazards, that each day of unnecessary opioid use increases likelihood of physical dependence without adding benefit, and that prescriptions with fewer days’ supply will minimize the number of pills available for unintentional or intentional diversion. In chronic pain management, taking even a low-dose opioid for more than 3 months increases the risk of addiction by 15 times.

# Guidelines for Best Practices

- The Vermont Department of Health *Rule Governing the Prescribing of Opioids for Pain* provides legal requirements for the appropriate use of opioids in treating pain in order to minimize opportunities for misuse, abuse, and diversion, and optimize prevention of addiction and overdose.
  - [http://www.healthvermont.gov/sites/default/files/documents/pdf/REG\\_opioids-prescribing-for-pain.pdf](http://www.healthvermont.gov/sites/default/files/documents/pdf/REG_opioids-prescribing-for-pain.pdf)
  
- The CDC *Guideline for Prescribing Opioids for Chronic Pain* provides recommendations for primary care clinicians who are prescribing opioids for chronic pain outside of active cancer treatment, palliative care, and end-of-life care.
  - <http://dx.doi.org/10.15585/mmwr.rr6501e1>
  
- CDC MME Calculator
  - [https://www.cdc.gov/drugoverdose/pdf/calculating\\_total\\_daily\\_dose-a.pdf](https://www.cdc.gov/drugoverdose/pdf/calculating_total_daily_dose-a.pdf)