

# VERMONT PRESCRIPTION MONITORING SYSTEM

Annual Report 2018



# Contents

Executive Summary.....	1
Introduction.....	2
Definitions.....	2
Prescription Drug Monitoring Program.....	2
Drug Schedules.....	2
Drug Type and Classes.....	3
Opioid Types.....	4
Morphine Milligram Equivalents (MME).....	4
Disclaimers.....	4
Data Exclusions and Qualifications.....	4
Tramadol.....	5
Program Updates.....	6
Prescriber Insight Reports.....	6
Interstate Data Sharing.....	6
Map 1: Map of Interstate Data Sharing Partner States.....	7
Pharmacy Compliance.....	7
Registration and Use.....	7
<i>Figure 1: Number of VPMS Patient Care User Accounts.....</i>	<i>8</i>
<i>Figure 2: Number of VPMS Queries by User Type.....</i>	<i>8</i>
Total Vermont Population Prescription Trends.....	9
<i>Figure 3: Percent of Vermont Population Receiving at Least One Prescription by Drug Class.....</i>	<i>9</i>
<i>Figure 4: Percent of Vermont Population Receiving At Least One Prescription by Drug Class and Age.....</i>	<i>10</i>
<i>Figure 5: Percent of Vermont Residents Receiving At Least One Prescription by Gender and Drug Class.....</i>	<i>11</i>
<i>Figure 6: Number of Prescriptions per 100 Vermont Residents by Drug Class.....</i>	<i>12</i>
<i>Figure 7: Number of Prescriptions by Drug Class.....</i>	<i>13</i>
<i>Figure 8: Percent of All Prescriptions by Drug Class and Gender.....</i>	<i>14</i>
<i>Figure 9: Percent of Prescriptions Dispensed by Drug Class and by Age.....</i>	<i>15</i>
Opioid Analgesic Prescribing Patterns.....	16
<i>Figure 10: Percent of Vermont Population Receiving at Least One Opioid Analgesic Prescription by County.....</i>	<i>16</i>
<i>Figure 11: Percent of Population Receiving at Least One Opioid Analgesic Prescription by Age and Gender.....</i>	<i>17</i>

<i>Figure 12: Number of Opioid Analgesic Prescriptions per 100 Residents by County</i> .....	17
<i>Figure 13: Ten Most Commonly Prescribed Opioid Analgesics</i> .....	18
<i>Figure 14: Total Opioid Analgesic MME Dispensed per 100 Residents</i> .....	19
<i>Figure 15: Total Opioid Analgesic MME Dispensed per 100 Residents by County</i> .....	20
<i>Figure 16: Average Daily MME Dispensed for Opioid Analgesic Prescriptions</i> .....	21
<i>Figure 17: Average Daily MME for Opioid Analgesic Prescriptions Dispensed by County</i> .....	21
<i>Figure 18: Opioid Analgesic Average Daily MME Dispensed by Age and Gender</i> .....	22
<i>Figure 19: Percent of Opioid Analgesic Prescriptions by Average Daily MME Category</i> .....	23
<i>Figure 20: Percent of Opioid Analgesic Prescriptions by MME Category and County</i> .....	24
<i>Figure 21: Potential Average Days of Opioid Analgesic Use Per Vermont Resident, Based on Total Amount Dispensed by Year</i> .....	25
<i>Figure 22: Average Days' Supply per Opioid Analgesic Prescription</i> .....	26
<i>Figure 23: Opioid Analgesic Average Days' Supply by County</i> .....	27
<i>Figure 24: Average Days' Supply by MME Category</i> .....	27
<i>Figure 25: Percent of Opioid Naïve Recipients of Long-acting Opioid Analgesic Prescriptions</i> ..	28
Medication Assisted Treatment (MAT) Prescribing Patterns .....	<b>29</b>
<i>Figure 26: Percent of Population Receiving at Least One MAT Prescription by Age and Gender</i> .....	29
<i>Figure 27: Number of MAT Prescriptions per 100 Residents by County</i> .....	30
Stimulant Prescribing Patterns .....	<b>31</b>
<i>Figure 28: Percent of Population Receiving At Least One Stimulant Prescription by Age and Gender</i> .....	31
<i>Figure 29: Number of Stimulant Prescriptions per 100 Residents by County</i> .....	32
Benzodiazepine Prescribing Patterns .....	<b>33</b>
<i>Figure 30: Percent of Population Receiving At Least One Benzodiazepine Prescription by Age and Gender</i> .....	33
<i>Figure 31: Benzodiazepine Prescriptions Dispensed per 100 Residents by County</i> .....	34
Prescription Issues of Concern .....	<b>35</b>
<i>Figure 32: Percent of Opioid Analgesic Prescription Days with Overlapping Prescriptions</i> .....	35
<i>Figure 33: Individuals Exceeding Multiple Provider Thresholds in a Six-Month Period</i> .....	36
Conclusion.....	<b>36</b>
APPENDIX: DATA TABLES .....	<b>38</b>
Appendix Table 2: Percent of Population Receiving at Least One Opioid Analgesic Prescription (Trend) .....	39
Appendix Table 3: Percent of Population Receiving at Least One Opioid Analgesic Prescription by Age (2018).....	40

Appendix Table 4: Percent of Population Receiving at Least One Benzodiazepine Prescription by Age Group (2018).....	41
Appendix Table 5: Percent of Population Receiving at Least One MAT Prescription by Age Group (2018).....	42
Appendix Table 6: Percent of Population Receiving at Least One Stimulant Prescription by Age Group (2018).....	43
See also Figure 4.....	43
Appendix Table 7: Percent of Population Receiving at Least One Opioid Analgesic Prescription by Gender (2018).....	44
Appendix Table 8: Percent of Population Receiving at Least One Benzodiazepine Prescription by Gender (2018).....	45
Appendix Table 9: Percent of Population Receiving at Least One MAT Prescription by Gender (2018).....	46
Appendix Table 10: Percent of Population Receiving at Least One Stimulant Prescription by Gender (2018).....	47
Appendix Table 11: Number of Prescriptions per 100 Residents by Drug Class (2018).....	48
Appendix Table 12: Total Number of Prescriptions by Drug Class and County (2018).....	49
Appendix Table 13: Total Number of Prescriptions by Drug Class (Trend).....	50
Appendix Table 14: Percent of Opioid Analgesic Prescriptions by Gender (2018).....	51
Appendix Table 15: Percent of Benzodiazepine Prescriptions by Gender (2018).....	52
Appendix Table 16: Percent of MAT Prescriptions by Gender (2018).....	53
Appendix Table 17: Percent of Stimulant Prescriptions by Gender (2018).....	54
Appendix Table 18: Percent of Opioid Analgesic Prescriptions by Age Group (2018).....	55
Appendix Table 19: Percent of Benzodiazepine Prescriptions by Age Group (2018).....	56
Appendix Table 20: Percent of MAT Prescriptions by Age Group (2018).....	57
Appendix Table 21: Percent of Stimulant Prescriptions by Age Group (2018).....	58
Appendix Table 22: Percent of Male Population Receiving at Least One Opioid Analgesic Prescription By Age Group (2018).....	59
Appendix Table 23: Percent of Female Population Receiving at Least One Opioid Analgesic Prescription By Age Group (2018).....	60
Appendix Table 24: Ten Most Commonly Prescribed Opioid Analgesics by Generic Name (Trend).....	61
Appendix Table 25: Total Opioid Analgesic MME Per 100 Residents (Trend).....	62
Appendix Table 26: Average Daily MME for Opioid Analgesic Prescriptions (Trend).....	63
Appendix Table 27: Average Daily MME for Male Population by Age Group (2018).....	64
Appendix Table 28: Average Daily MME for Female Population by Age Group (2018).....	65
Appendix Table 29: Percentage of Opioid Analgesic Prescriptions in MME Category (2018).....	66
Appendix Table 30: Average Days' Supply for Opioid Analgesic Prescriptions (Trend).....	67

Appendix Table 31: Average Days' Supply by MME Category (2018) .....	68
Appendix Table 32: Percent of Male Population Receiving at Least One MAT Prescription By Age Group (2018).....	69
Appendix Table 33: Percent of Female Population Receiving at Least One MAT Prescription By Age Group (2018).....	70
Appendix Table 34: Percent of Male Population Receiving at Least One Stimulant Prescription By Age Group (2018).....	71
Appendix Table 35: Percent of Female Population Receiving at Least One Stimulant Prescription By Age Group (2018).....	72
Appendix Table 36: Percent of Male Population Receiving at Least One Benzodiazepine Prescription By Age Group (2018).....	73
Appendix Table 37: Percent of Female Population Receiving at Least One Benzodiazepine Prescription By Age Group (2018).....	74

## Executive Summary

The Vermont Prescription Monitoring System (VPMS) collects information on Schedule II–IV controlled substances dispensed by Vermont-licensed retail pharmacies. The intent of VPMS is to improve patient care and prevent problems associated with misuse of controlled substances.

The VPMS is continually striving to improve system usability and access. Common measures of access and usability include the number of registered users, which increased 29% between 2017 and 2018, the number of systems queries, which increased nearly 25% in the same period, and the number of states with whom Vermont has a formal interstate data sharing agreement, which expanded from seven states in 2017 to eight in 2018. These agreements allow prescribers to view prescriptions dispensed in states.

- More opioid analgesic pain relievers are dispensed in Vermont than any other Schedule II-IV controlled substances, followed by benzodiazepines, stimulants, and medications to treat opioid use disorder.
- Opioid analgesic pain relievers are being dispensed to fewer Vermonters than in the past. The percent of the Vermont population receiving at least one opioid prescription dropped from 16.9% in 2013 to 11.6% in 2018, a decrease of 31%.
- Total amount of opioid analgesic pain relievers dispensed has declined. The total morphine milligram equivalents ([MME](#)) of opioid analgesic pain relievers dispensed per 100 residents decreased 26% between 2013 and 2018.
- Prescriptions for buprenorphine, which is used to treat opioid use disorder, increased 76% between 2013 and 2018, reflecting Vermont's increased focus on treatment.
- More Vermonters are receiving stimulants. There was a 15% increase in the percent of the Vermont population receiving stimulants between 2013 and 2018. Stimulants were dispensed to nearly 8% of males under 18.
- County-level dispensing of controlled substances varies, and stakeholders are encouraged to use this report, in combination with other community information, to determine if these variations are of concern. Some counties along the eastern side of the state, especially Essex, may show artificially lower rates because there are few or no pharmacies in the county so residents may fill their prescriptions in another state. Still, there are some regions with significantly higher rates of use. Based on the number of prescriptions per 100 residents, Franklin county residents receive 45% more prescriptions for opioid analgesics than the statewide average and Windham County residents receive 47% more stimulant prescriptions.

VPMS staff continue to pursue opportunities for system improvements such as integrating the VPMS with electronic health records and offering provider tools that are easy to use and clinically relevant to provide essential information about their patients in real-time.

## Introduction

The Vermont Prescription Monitoring System (VPMS) is a database of controlled substance prescriptions dispensed by Vermont licensed pharmacies. The data in VPMS helps prescribers and pharmacists make evidence-based clinical decisions and identify potential diversion of controlled substances. The system is used by approved registered users to review prescriptions received by individuals to avoid contraindicated prescription combinations or overlapping prescriptions of similar drugs. It may also identify potential misuse of prescriptions and provide an opportunity to discuss substance abuse screening, referral, and treatment options.

VPMS also serves as a surveillance tool to monitor statewide trends in the dispensing of controlled substances.

This report includes prescription data for 2018 and trend information from 2013 to 2018. More detailed information, including county level trend information, is available in the appendix.

## Definitions

### Prescription Drug Monitoring Program

Prescription Drug Monitoring Programs (PDMPs) are databases that collect and track controlled substance prescriptions dispensed by pharmacies licensed in the state they operate. Each state operates its own PDMP, which have different access and use requirements based on their state statutes. VPMS is Vermont's PDMP.

### Drug Schedules

The Drug Enforcement Agency (DEA) assigns controlled substances to different [schedules](#) according to their potential for abuse or dependence<sup>1</sup>. VPMS collects information on Schedule II-IV controlled substances. The scheduling is as follows:

- **Schedule I**  
Drugs with no currently accepted medical use and a high potential for abuse. These drugs are illegal at the federal level and are not included in VPMS.

Examples of Schedule I controlled substances include: heroin, lysergic acid diethylamide (LSD), marijuana (cannabis), 3,4-methylenedioxymethamphetamine (ecstasy), methaqualone, peyote, and illicitly manufactured fentanyl and fentanyl analogs.

Please note that even though Vermont has legalized both recreational and medical use of marijuana, this is still a federally scheduled drug and not collected by VPMS.

---

<sup>1</sup> United States Drug Enforcement Administration Drug Scheduling. Accessed 6/1/2020. <https://www.dea.gov/drug-scheduling>.

- **Schedule II**

Drugs with a high potential for abuse. Use of these drugs may lead to severe psychological or physical dependence.

Examples of Schedule II controlled substances include: oxycodone, prescribed fentanyl, amphetamine, and methylphenidate.

- **Schedule III**

Drugs with a moderate to low potential for physical or psychological dependence.

Examples of Schedule III controlled substances 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 of Schedule IV controlled substances include: clonazepam, diazepam, and alprazolam.

- **Schedule V**

Drugs with lower potential for abuse than Schedule IV and consisting of preparations containing limited quantities of certain narcotics. Schedule V drugs are generally used for antidiarrheal, antitussive, and analgesic purposes. These are not included in VPMS.

Examples of Schedule V controlled substances are: Lomotil, Motofen, Lyrica, Parepectolin, and cough preparations with less than 200 milligrams of codeine per 100 milliliters such as Robitussin AC.

## Drug Type and Classes

This report assigns drugs to drug classes based on the U.S. Centers for Disease Control and Prevention's (CDC) treatment classes. The drug types included in this report are:

- **Opioid analgesics:** opioids used in the treatment of pain.  
Examples: oxycodone, hydrocodone, and prescribed fentanyl.
- **Medication-Assisted Treatment (MAT) opioid agonist/antagonist:** medications used to treat opioid use disorder. With a few exceptions, any drug containing buprenorphine is considered a MAT opioid.  
Examples: Suboxone, and Subutex.



- Benzodiazepines: sedatives to treat anxiety, insomnia and other conditions. Examples: lorazepam, clonazepam, and diazepam.
- Stimulants: medication to increase alertness, attention and energy. Examples: methylphenidate, and amphetamine.
- Other: all other schedule II-IV drugs that are not in the other categories. Due to the wide variety of medications included in this group, “Other” prescription data, while present in the database, are not included in this report.

Examples: hormones, muscle relaxants, cannabinoids, and non-hypnotic sedatives such as Ambien, among others.

## Opioid Types

Opioid prescriptions are reported in two different categories: opioid analgesics and MAT prescriptions. Opioid analgesics are opioids prescribed for the treatment of pain. MAT prescriptions, most frequently buprenorphine, are opioids prescribed to people for the treatment of opioid use disorder (OUD). This report includes data on only those MAT drugs dispensed by a Vermont-licensed pharmacy. For situations in which opioid drugs or MAT prescriptions are NOT included, please see below in [Disclaimers](#).

## Morphine Milligram Equivalent (MME)

Opioid pain medication strengths, dosages, and number of days supply vary significantly across prescriptions. To better understand trends and patterns of use, Morphine Milligram Equivalent (MME) are used as a standardization measure. MME is a way to express the strength of an opioid analgesic as though each prescription were converted to morphine. Many research experts, federal agencies (e.g., Centers for Disease Control and Prevention, Bureau of Justice Administration, Substance Abuse and Mental Health Services Administration) and VPMS use MME dispensed to compare different formulations of drugs and better understand the abuse and overdose potential of opioid analgesics. MME is expressed as total MME, which is the total MME in a prescription or combination of prescriptions, or an average daily MME which means the amount dispensed averaged over the number of days of the prescription.

## Disclaimers

### Data Exclusions and Qualifications

VPMS contains prescriptions that are dispensed by Vermont-licensed pharmacies, including mail-order pharmacies dispensing to Vermonters. VPMS does not include prescriptions dispensed in the following situations:

- Prescriptions filled at out-of-state pharmacies that are not licensed in Vermont,

- Methadone and/or buprenorphine that is dispensed by specialty substance abuse treatment providers such as Opioid Treatment Programs (OTP) which are known as “hubs” in Vermont,
- Drugs dispensed from an emergency room in an amount to treat pain for 48 hours or less,
- Drugs administered directly to a patient in a medical setting such as a hospital or nursing home, and
- Prescriptions dispensed from veterinary offices.

VPMS includes MAT drugs used to treat opioid use disorder when they are prescribed at a physician’s office or office-based opioid treatment (OBOT) provider, commonly referred to as a “spoke” in Vermont. These opioids are shown as “MAT Prescriptions” in this report. MAT drugs that are directly dispensed to a patient through an opioid treatment program (OTP), or “hub”, are not included in VPMS due to federal regulations. Therefore, VPMS only tells us about prescriptions used by individuals receiving care in spokes.

Data submitted to VPMS by pharmacies may contain errors. Each upload from a pharmacy is screened for errors and returned to the pharmacy if it requires correction. However, not all errors are found or corrected.

VPMS does not contain prescriptions that are written but not filled. Patient diagnosis or information on how a prescribed medication is used is not included in VPMS.

County level information is based on the recipient’s county of residence, which is determined by the recipient address information as sent to VPMS by the pharmacy that filled the prescription. Not all prescriptions in VPMS have correct address information; therefore, some prescriptions cannot be assigned to a county. Due to this, the number of prescriptions by county will not equal the total number of prescriptions statewide for a specific year.

People in counties that border other states may fill prescriptions in other states. Those prescriptions are not included in this report. When reviewing county level variations, also consider factors such as the age distribution in the county and the likelihood that a prescription may have been filled out of state. Even high rates of manual labor and the associated risk of injury may impact regional prescribing patterns. Measures that are based on the number of prescriptions should be interpreted carefully. A prescription may be for a short period of time, such as less than a week, while others may be for much longer, such as 30 days. Looking at the number of prescriptions in combination with days’ supply – or using [MME](#) as a measure of opioids – provides a more complete view of prescribing.

## Tramadol

Tramadol is an opioid analgesic. Prior to August 2014, tramadol was classified as a Schedule V Controlled Substance and not reported to VPMS. As of August 2014, tramadol was designated as a Schedule IV Controlled Substance and began being reported to VPMS. Tramadol has a lower MME per dose than most opioid analgesics; a 100 mg tablet of tramadol has 10 MME compared to a 10 mg tablet of oxycodone (the most commonly used

opioid analgesic in Vermont), which has 15 MME. Tramadol is the second most commonly used opioid analgesic so rescheduling has had a significant impact on trends over time and must be considered when viewing opioid analgesic prescription trends prior to and during 2014.

## Program Updates

### Prescriber Insight Reports

With increased attention on improving prescribing practices, prescribers expressed interest in comparing their own prescribing to their peers. In 2018, VPMS continued to further refine its Prescriber Insight Reports. These quarterly reports are sent to VPMS-registered providers who prescribed at least one opioid analgesic prescription during the previous six months. The reports contain metrics on the prescriptions in VPMS associated with the individual prescriber and compares them to other prescribers in their specialty, as well as with other similar types of prescribers within the same specialty (e.g. physicians, nurse practitioners, physician's assistants). Over 4,064 reports were sent to prescribers in 2018. The state offers technical assistance and quality improvement assistance to prescribers on how to use the reports to understand and change prescribing practices.

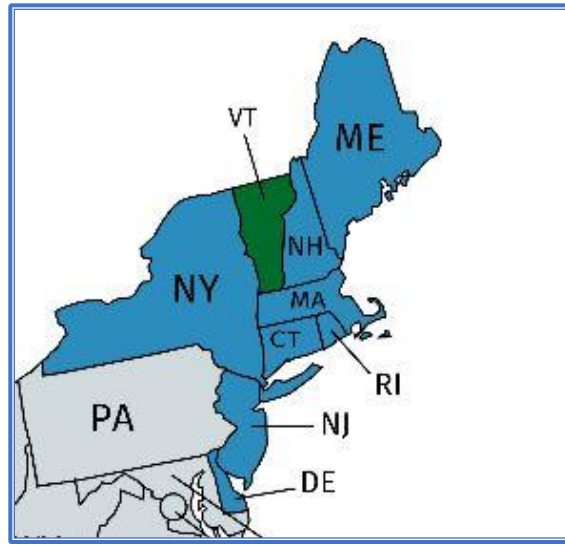
### Interstate Data Sharing

Prescribers and pharmacists may only register to use PDMPs in states in which they are licensed and prescriptions are only reported to Vermont if they are dispensed by a Vermont-licensed pharmacy. Since patients may fill their prescriptions at pharmacies in other states and receive care in other states, interstate data sharing allows Vermont providers to view patient prescriptions dispensed in other states and supplements the information that is included in VPMS.

VPMS has formal agreements with several other states to ensure that only users in other states allowed by Vermont regulations are authorized to view VPMS data. Data from other states are included in a patient query when that state's data is specifically requested by the provider. While providers can view out of state prescriptions through patient queries, prescriptions dispensed by non-Vermont licensed pharmacies do not appear in summary reports, such as this document, because these data are not "owned" by Vermont. This means prescription data may be less complete for counties along the eastern and southern borders of the state.

In 2018, Vermont began sharing prescription data with Delaware. Vermont continued also sharing with Connecticut, Maine, Massachusetts, New Hampshire, New Jersey, New York, and Rhode Island.

Map 1: Map of Interstate Data Sharing Partner States



Vermont providers queried other states' PDMPs 166,664 times in 2018. Of these, approximately 13% returned prescription information. Approved users in other states accessed VPMS data 1,710,814 times. Due to state confidentiality requirements, the number of queries returning additional information is unknown.

## Pharmacy Compliance

Uploading prescription data in a timely manner ensures that information is readily accessible and relevant for providers reviewing patients. In 2018, pharmacies were required to upload prescription data within 24 hours or one business day of dispensing Schedule II-IV controlled substances.

VPMS tracks compliance with the reporting requirements. By the end of 2018, 96% of Vermont-licensed pharmacies were compliant. Of pharmacies located within Vermont, 98% were compliant with the requirement to upload prescriptions within 24 hours or one business day. Vermont-licensed out-of-state pharmacies, such as mail-order pharmacies, had lower compliance rates, at 92%.

## Registration and Use

Access to VPMS is limited to provider types that are outlined in Vermont statute. These providers are primarily focused on patient care. All Vermont-licensed prescribers of controlled substances Schedule II-IV are required to register for VPMS. Both prescribers and pharmacists can approve delegates, such as office staff, to query the system on their behalf. This helps improve workflow in busy practices.

## Prescriber Compliance

The 2016 passing of Act 173, an act relating to combating opioid abuse in Vermont, highlighted the mandatory VPMS registration requirement which led to a 92% increase in registrations in 2017. Registrations increased 29% from 4,842 users in 2017 to 6,235 in 2018. Newly licensed practitioners in Vermont were provided information about licensure requirements, including registration with VPMS.

*Figure 1: Number of VPMS Patient Care User Accounts*

User Type	Number of Accounts
Prescriber	3,716
Prescriber Delegate	1,869
Pharmacist	588
Pharmacist Delegate	62
<b>Total Patient Care User Accounts</b>	<b>6,235</b>

VPMS users queried the system nearly 350,000 times in 2018, an increase of approximately 25% over 2017. Prescribers or prescriber delegates accounted for nearly 75% of queries, and pharmacists and pharmacist delegates the remaining 25% ([Fig.2](#)). “Other” user types such as administrative and system support staff, the Medical Director of the Department of Vermont Health Access, the Vermont Medical Examiner, and delegates from the Office of the Chief Medical Examiner occasionally queried the system.

*Figure 2: Number of VPMS Queries by User Type*

User Type	Number of Queries
Prescriber	73,006
Prescriber Delegate	181,909
Pharmacist	82,718
Pharmacist Delegate	5,926
Other	140
<b>Total Queries</b>	<b>343,647</b>

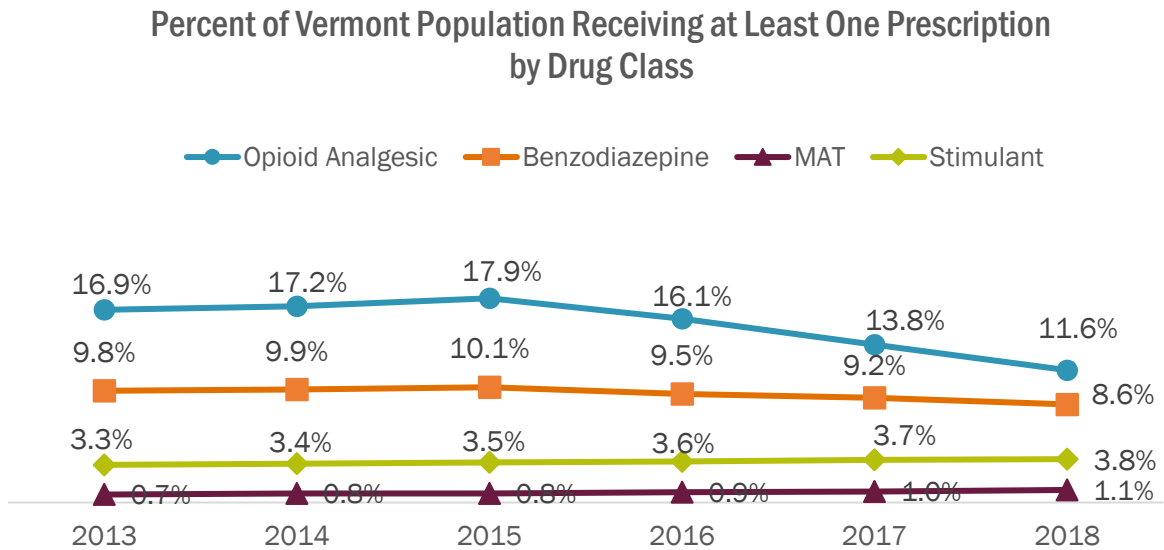
In 2018, 9 out of 10 prescriptions in VPMS were written by a prescriber who was licensed in Vermont and had a VPMS account. The remainder of prescriptions in VPMS were written by providers who did not have a VPMS account or who are licensed in another state.

## Total Vermont Population Prescription Trends

Opioid analgesics are the most dispensed controlled drug class. Over 11% of Vermonters received at least one opioid analgesic prescription in 2018. Of Vermonters, 8.6% received a benzodiazepine, 3.8% received a stimulant, and approximately 1% received a prescription for MAT.

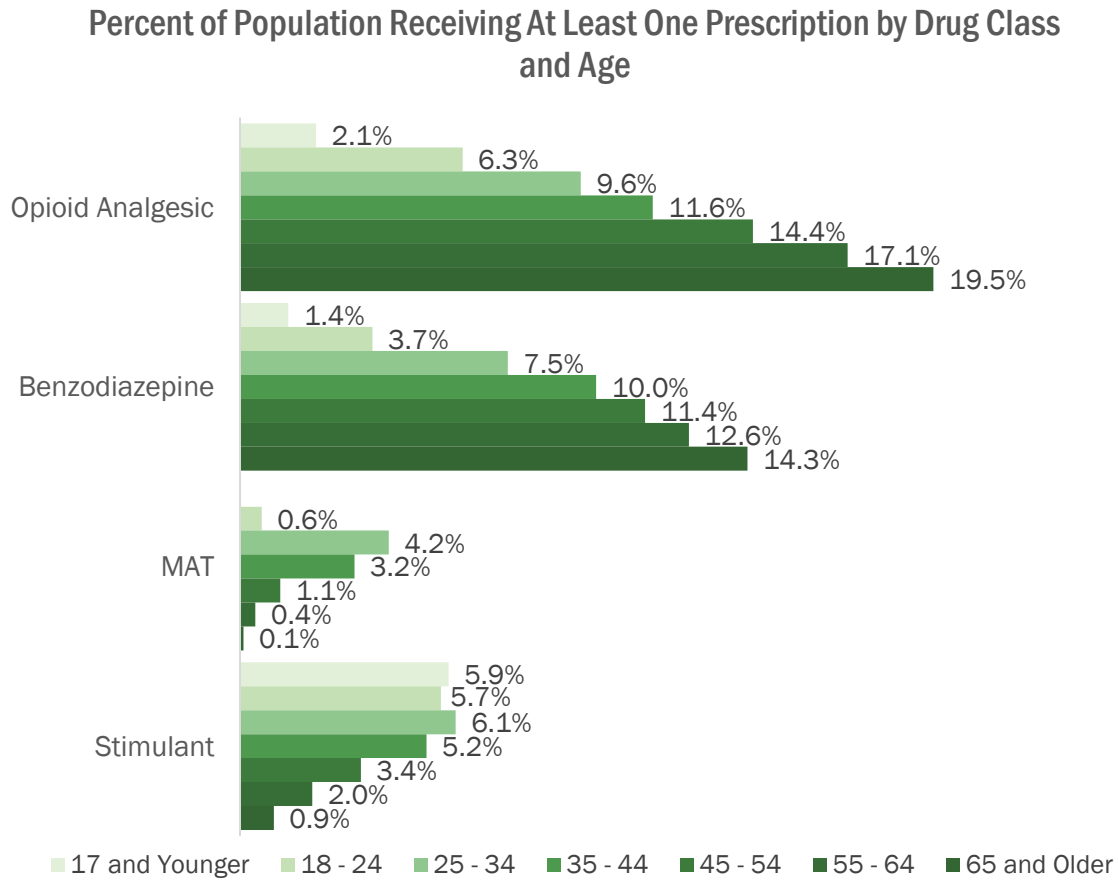
The percentage of the Vermont population dispensed an opioid analgesic prescription declined between 2013 and 2018, from 16.9% to 11.6%. This includes the rescheduling of [tramadol](#) in the middle of 2014 and the resultant increase in opioid analgesic reporting. (Fig. 3) There was a 16% decrease from 2017 to 2018.

Figure 3: Percent of Vermont Population Receiving at Least One Prescription by Drug Class



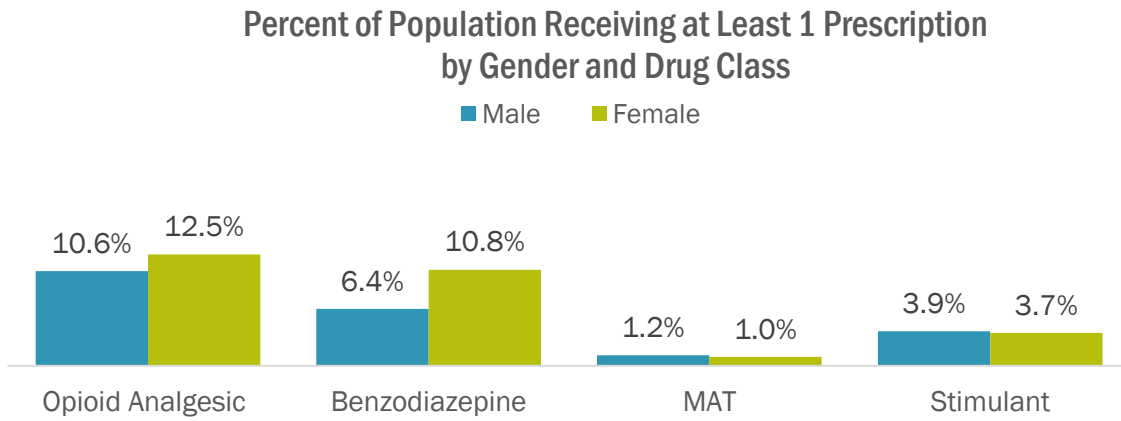
Drugs dispensed vary significantly by age. Opioid analgesic and benzodiazepine use increase with age; MAT drugs are most frequently used by those age 25-34; and people under 35 are most likely to be dispensed stimulants. (Fig. 4)

Figure 4: Percent of Vermont Population Receiving At Least One Prescription by Drug Class and Age



More than 12% of females and 10% of males received an opioid analgesic prescription in 2018. Benzodiazepines were also more commonly dispensed to females, at nearly 11% of the population, than males (6.4%). Males and females were similarly dispensed stimulants and MAT drugs. (Fig. 5)

Figure 5: Percent of Vermont Residents Receiving At Least One Prescription by Gender and Drug Class

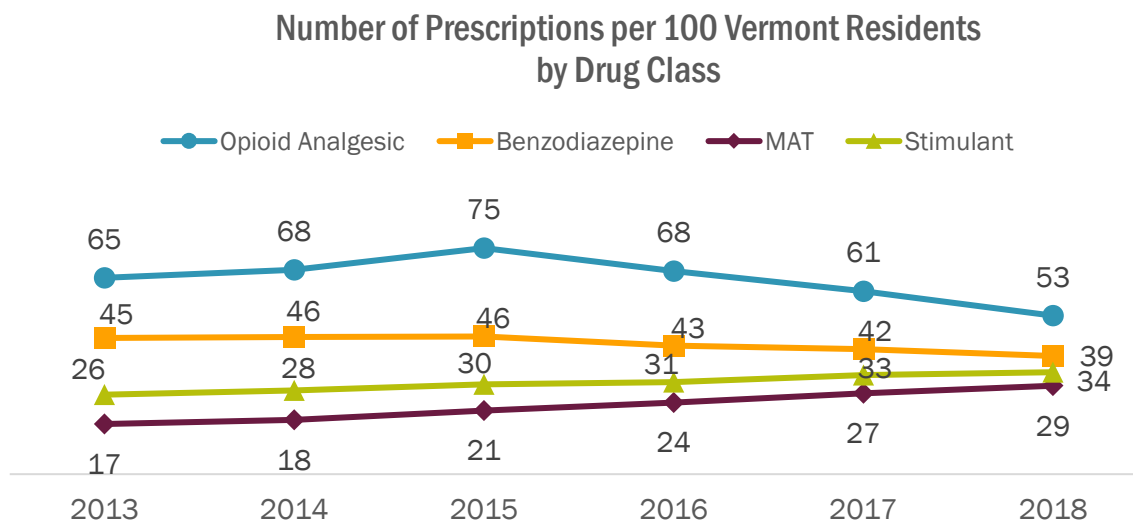




Although the portion of Vermonters receiving opioid analgesics showed an overall decrease between 2013 and 2018, there was an increase in the number of dispensed prescriptions per 100 people in 2015, which is likely due to the rescheduling and subsequent inclusion of Tramadol in VPMS in mid-2014. Rates before and after 2014 can't be directly compared, but even with the Tramadol rescheduling, the rate per 100 people in 2018 is the lowest rate since 2013. This is significant as Tramadol was the second most commonly prescribed opioid analgesic in 2018. (Fig. 13) Between 2015 and 2018, full years that include Tramadol, there was a decrease of almost 30% in prescriptions per 100 people. The early decrease in the rate of prescriptions is likely due to increased awareness during the lead-up to the passage of Act 173 and preparation for the implementation of the prescribing rules that went into effect on July 1st, 2017. In 2017 and 2018, training and technical assistance focused on correct implementation of the Rule contributed to awareness of best practices in opioid prescribing which may have contributed to providers reduction of their prescribing of opioids.

The rate of benzodiazepine prescriptions dispensed decreased between 2015 and 2018 after being relatively consistent since 2013. The rate of MAT per 100 people increased approximately 71% between 2013 and 2018 due to increased access to treatment for opioid use disorder and an increase in prescribers with waivers to prescribe buprenorphine (“spoke” providers). Stimulant prescriptions increased over 31% between 2013 and 2018. (Fig. 6)

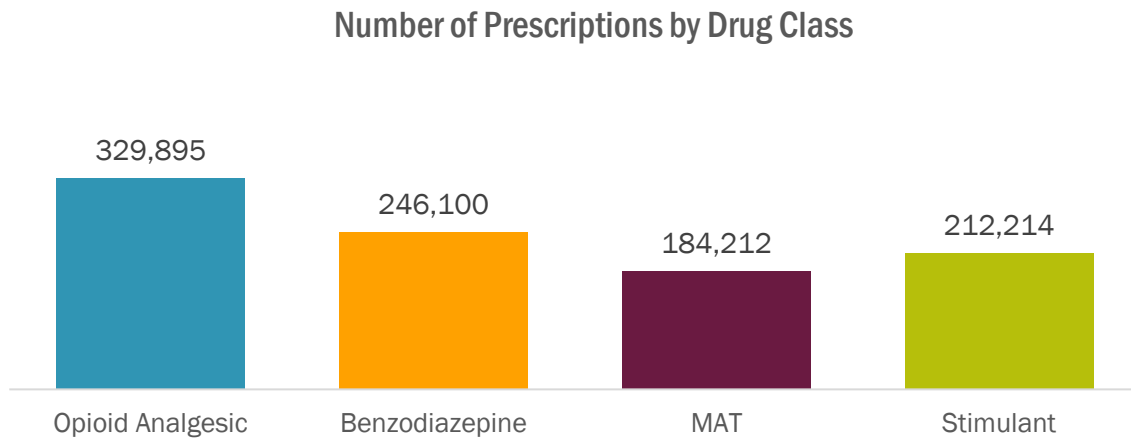
Figure 6: Number of Prescriptions per 100 Vermont Residents by Drug Class



The number of prescriptions provides a simple metric for measuring prescriptions dispensed but it does not accurately depict the actual quantities of medication dispensed. A single prescription may contain different doses, different numbers of pills, different strengths of the medication, etc.

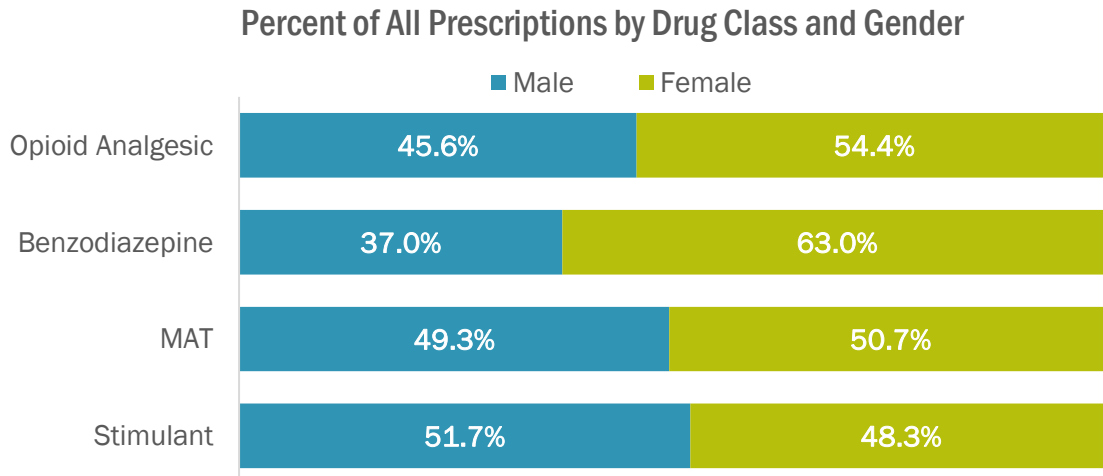
Nearly 330,000 prescriptions for opioid analgesics were dispensed in 2018, as were nearly 250,000 prescriptions for benzodiazepines. MAT prescriptions dispensed were the least common, with fewer than 185,000 prescriptions. There were close to 215,000 prescriptions for stimulants dispensed in 2018. ([Fig. 7](#))

*Figure 7: Number of Prescriptions by Drug Class*



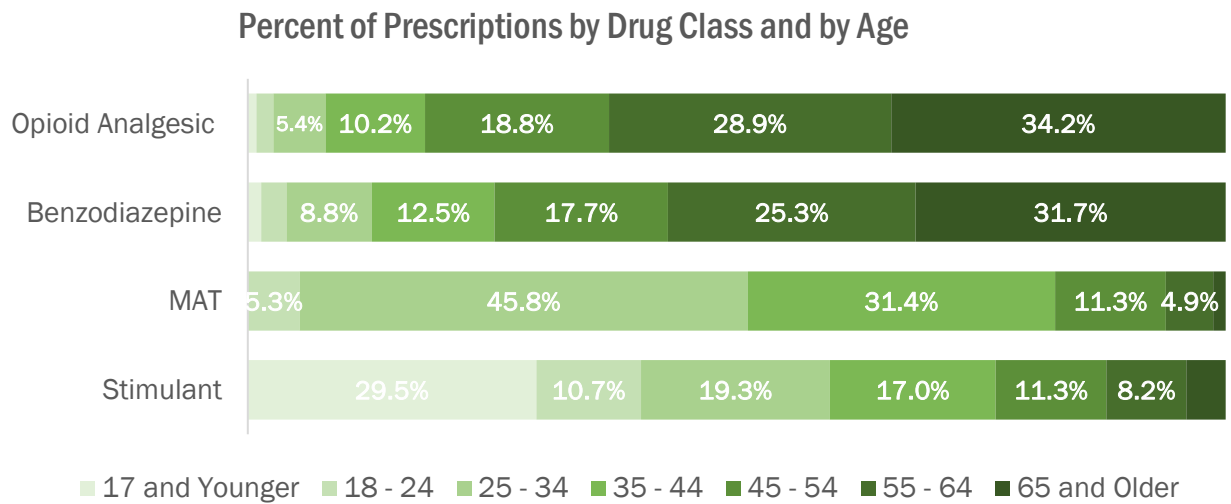
Females are more likely to receive opioid analgesics, benzodiazepines and MAT drugs than males; males are more likely to receive stimulants. ([Fig. 8](#))

*Figure 8: Percent of All Prescriptions by Drug Class and Gender*



Dispensing patterns vary by drug class and age. Opioid analgesic and benzodiazepine prescriptions were most frequently dispensed to older Vermonters. More than half of the prescriptions dispensed in these classes were written to people 55 and older. Just over 18% of the opioid analgesic prescriptions dispensed were written to people under the age of 45. Approximately 1% of opioid analgesic or benzodiazepine prescriptions dispensed were written for those under 18. MAT and stimulants are more frequently dispensed to younger people. Almost half of prescriptions dispensed for MAT were dispensed to those between the ages of 25 and 34 years of age, and nearly a third were dispensed to those between 35 and 44. Youth under 18 were dispensed more stimulant prescriptions than any other age group, followed by those age 25-34. (Fig. 9)

Figure 9: Percent of Prescriptions Dispensed by Drug Class and by Age



## Opioid Analgesic Prescribing Patterns

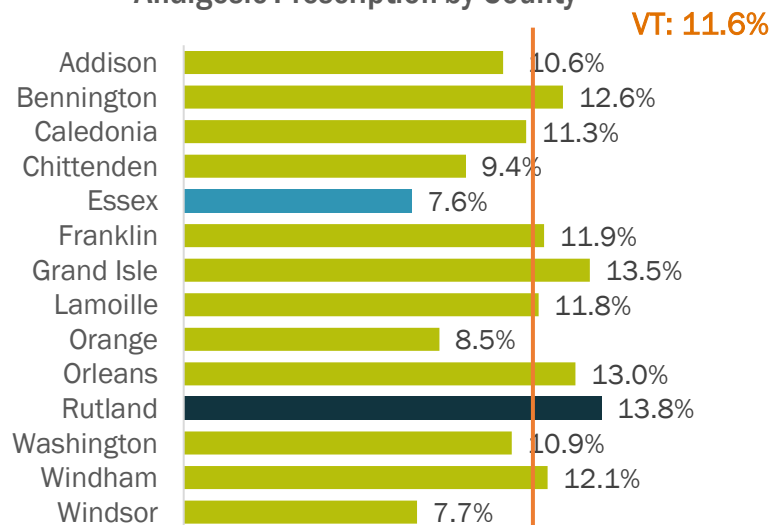
Opioid analgesics are prescription opioids used to treat pain. Since VPMS does not include diagnosis information, a combination of opioid analgesic measures must be considered to show trends and patterns of use. For example, using the percent of the population receiving opioid analgesics (Fig. 10) and the number of opioid analgesic prescriptions per 100 people (Fig. 12) in tandem provides more context than viewing each separately, as high numbers of prescriptions per 100 people may indicate that prescribers are giving short term prescriptions such as three separate five-day prescriptions rather than one 15-day prescription.

The percent of the population receiving opioid analgesics (Fig. 3), average daily MME (Fig. 16), percentage by MME category (Fig. 19), and the average days' supply (Fig. 22) each provide information about prescribing practices. High MME may indicate use for chronic pain. Opioid analgesic prescriptions for five or fewer days typically indicate use for acute pain management such as immediately after an injury or surgery.

There was considerable [county-level variation](#) in opioid analgesics dispensed in 2018. Statewide, 11.6% of the Vermont population received at least one opioid prescription. The variation by county is shown in the differences between Rutland and Essex: 13.8% of the population in Rutland County received an opioid prescription (shown in dark blue), but only 7.6% of the Essex County did (shown in lighter blue) although this should be interpreted with caution because people in border counties may [fill prescriptions out of state](#). (Fig. 10)

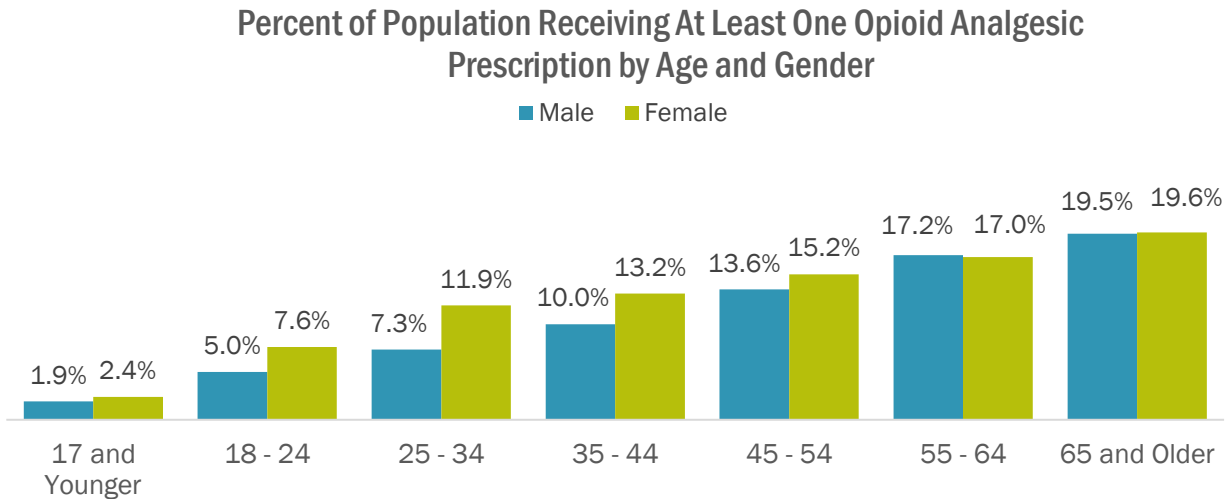
Figure 10: Percent of Vermont Population Receiving at Least One Opioid Analgesic Prescription by County

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



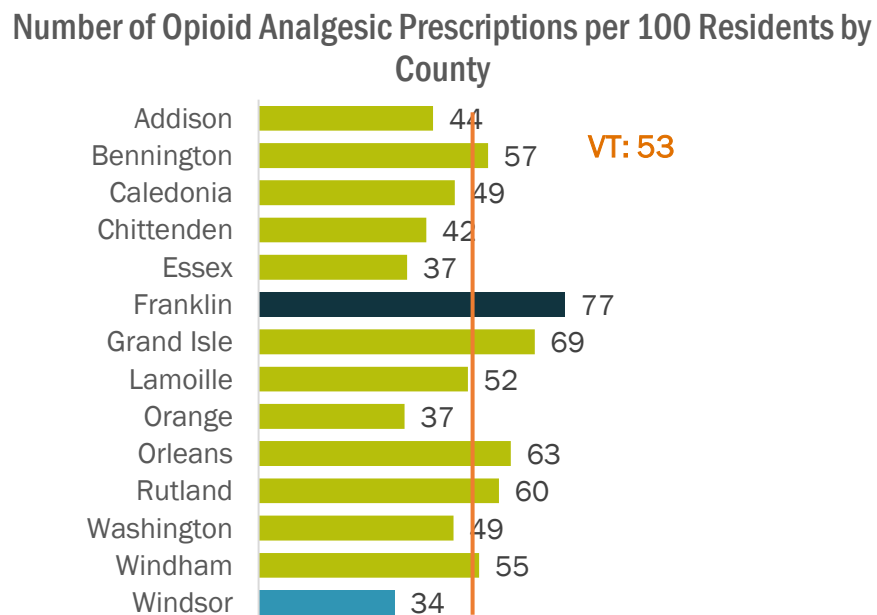
As people age, they are more likely to receive opioid analgesic prescriptions. For those under age 55, females were more likely to receive opioid analgesics than males. Males and females age 55+ were as likely to receive opioid analgesics. (Fig. 11)

Figure 11: Percent of Population Receiving at Least One Opioid Analgesic Prescription by Age and Gender



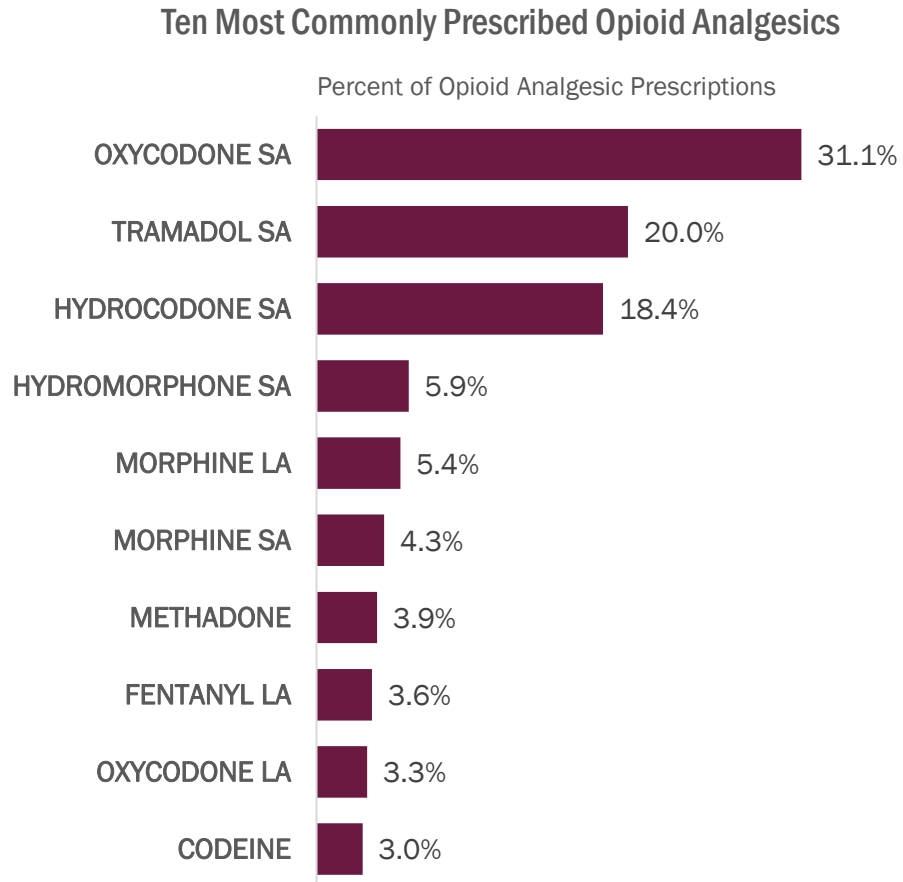
Opioid analgesics were the most frequently dispensed controlled drug class in all counties, although there was significant variation in the rate between counties. Franklin had the highest rate of opioid analgesic prescriptions dispensed. Grand Isle, Orleans, Rutland, Bennington, and Windham counties also have rates above the statewide rate. (Fig. 12)

Figure 12: Number of Opioid Analgesic Prescriptions per 100 Residents by County



Opioid analgesics can be categorized as short acting (SA) or long acting (LA). Short acting opioid analgesics were the most prescribed opioid analgesics in Vermont in 2018, led by Oxycodone SA at 31.1%, Tramadol SA at 20.0%, and Hydrocodone SA at 18.4%. ([Fig. 13](#)) No other opioid analgesic made up more than six percent of opioid analgesic prescriptions.

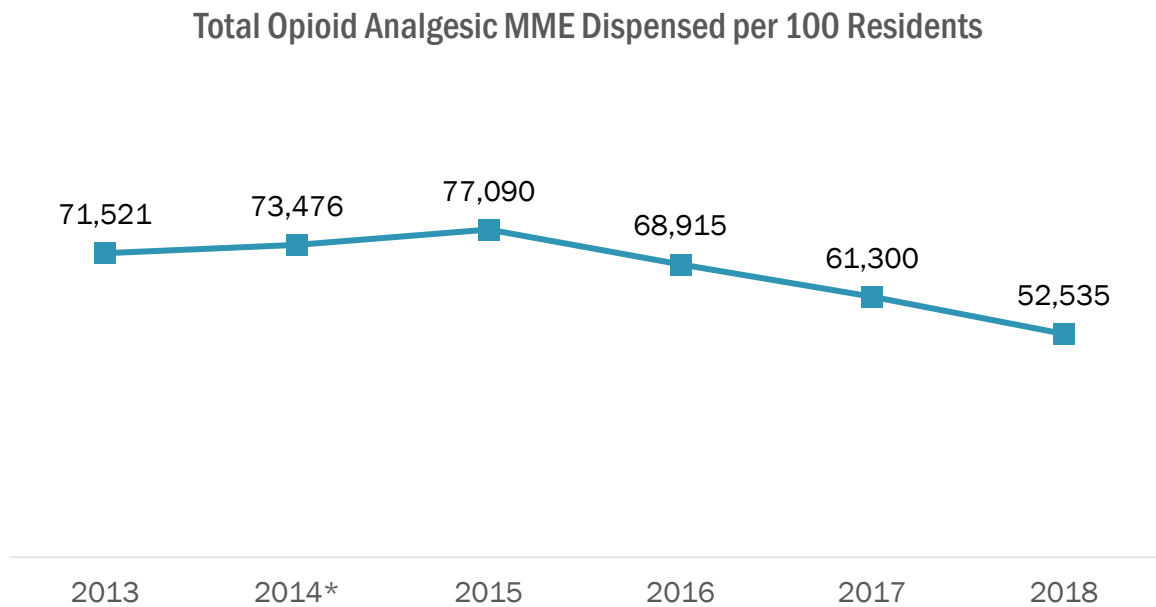
Figure 13: Ten Most Commonly Prescribed Opioid Analgesics



A standardized way to measure opioid analgesic prescriptions is the morphine milligram equivalents, or MME. Further information on opioid analgesics using this standardized measure is found in the [definitions](#) section of this report. The total MME prescribed per 100 residents declined from 77,090 in 2015 to 52,535 in 2018, a reduction of 32%. Years prior to 2014 cannot be directly compared to 2015-present due to the rescheduling of Tramadol from a Schedule V (not reported) to a Schedule IV-controlled substance in mid-2014.

Tramadol is the second most commonly dispensed opioid analgesic in Vermont ([Fig. 13](#)), so the rescheduling resulted in an increase in both MME and number of prescriptions in both 2014 and 2015. Despite the inclusion of Tramadol, the MME dispensed per 100 residents declined 26.5% between 2013 and 2018. This decrease is the result of overall decreased dispensing of opioid analgesics. ([Fig. 14](#))

Figure 14: Total Opioid Analgesic MME Dispensed per 100 Residents

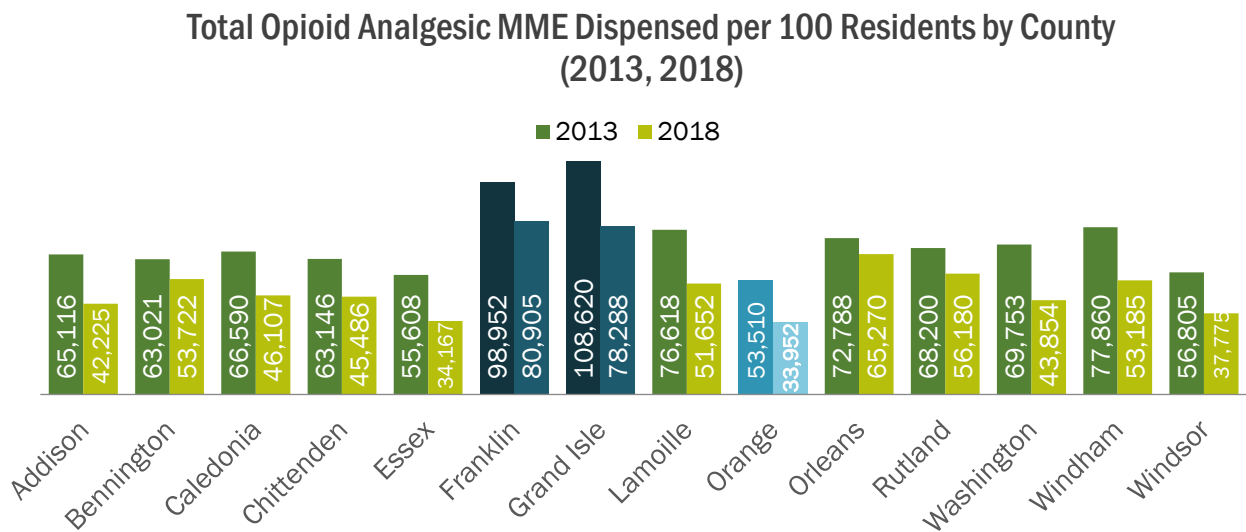


\*Note – Tramadol was not considered a Schedule IV controlled substance and was not collected in VPMS until August 14th, 2014



All counties saw a decline in opioid analgesic MME per 100 residents between 2013 and 2018, even with the inclusion of Tramadol beginning in 2014. Franklin and Grand Isle Counties show reductions during this time but still have the highest rates in the state while Orange County has consistently had the lowest rate. (Fig. 15)

Figure 15: Total Opioid Analgesic MME Dispensed per 100 Residents by County



The average daily MME is equal to the total MME of the prescription dispensed divided by the total days' supply of the prescription. This provides a standardized way to report the total strength of the prescription over the period that it is to be taken.

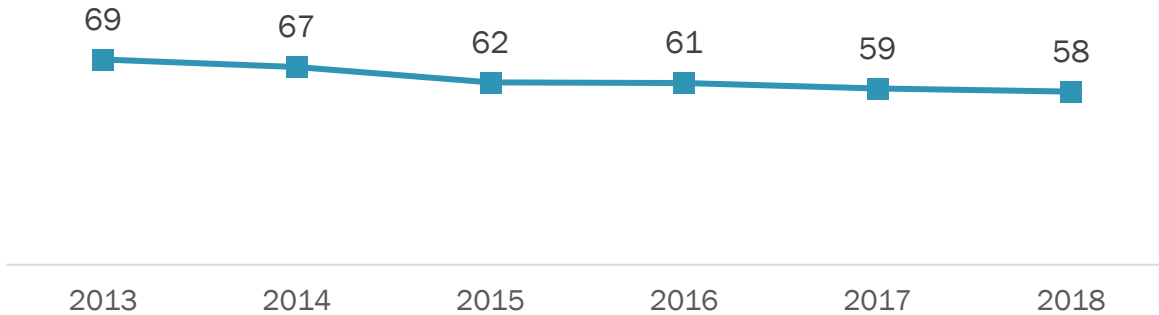
Prescriptions with higher MMEs are associated with increased risk of harm. Increasing dosages to  $\geq 50$  MME/day increases overdose risk without additional benefits for pain control or function. The Centers for Disease Control and Prevention (CDC) recommends that clinicians carefully reassess evidence of individual benefits and risks when considering increasing opioid dosages to  $\geq 50$  MME/day. Most experts also agree that opioid dosages should not be increased above 90 MME/day without careful justification based on diagnosis.

While the downward trend in average daily MME indicates a positive trend towards lower opioid prescribing, it is expected that the average daily MME would not decline rapidly once stabilizing. A sharp and continuous drop-off in the daily MME might indicate that patients with chronic pain were tapered too quickly from their higher dose prescriptions. The slowly decreasing trend of recent years may indicate that chronic pain patients are continuing to decrease high MME prescriptions, but this may be balanced by fewer acute prescriptions.

The average daily MME dispensed for opioid analgesics declined approximately 16% from 69 in 2013 to 58 in 2018. ([Fig. 16](#))

Figure 16: Average Daily MME Dispensed for Opioid Analgesic Prescriptions

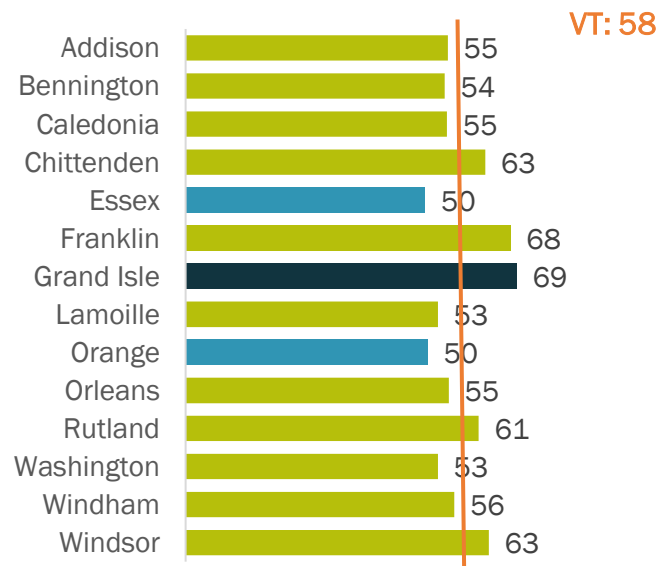
### Average Daily MME Dispensed for Opioid Analgesic Prescriptions



In 2018, Grand Isle County had the highest average daily MME dispensed at 69 followed by Franklin at 68. Essex and Orange Counties had the lowest average daily MME dispensed at 50. ([Fig. 17](#)).

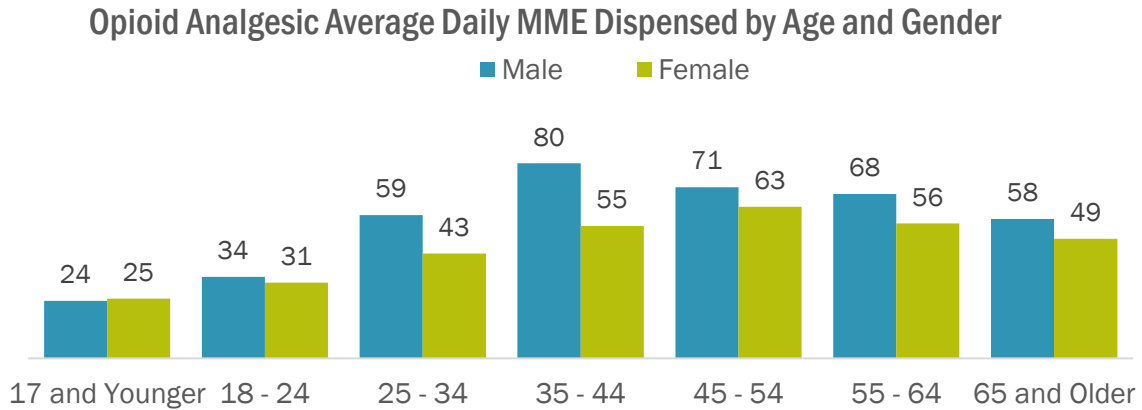
Figure 17: Average Daily MME for Opioid Analgesic Prescriptions Dispensed by County

### Average Daily MME for Opioid Analgesic Prescriptions Dispensed by County



Males typically had higher average daily MME dispensed than females, except in the youngest age group. Among Vermonters under the age of 18, the average daily MME dispensed was similar for males and females. Average daily MME peaked at age 35-44 for men and 45-54 for women. ([Fig. 18](#))

*Figure 18: Opioid Analgesic Average Daily MME Dispensed by Age and Gender*

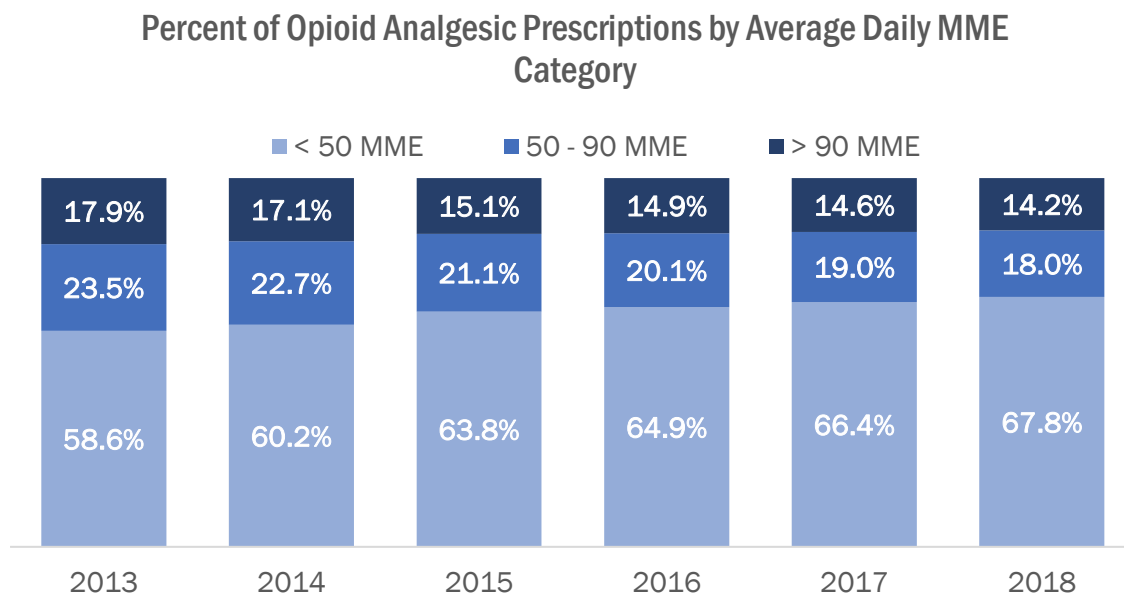


The Centers for Disease Control and Prevention Guidelines for Prescribing Opioids for Chronic Pain<sup>1</sup> categorizes prescribing based on three daily MME groups: <50 MME, 50-90 MME, and >90 MME. Higher MMEs are associated with greater risks of harm.

In 2018, two thirds of opioid analgesic prescriptions dispensed in Vermont had an average daily MME under 50, an increase of over 15% from 2013. High daily MME prescribing (>90 MME) decreased 20.7% in the same period. ([Fig. 19](#))

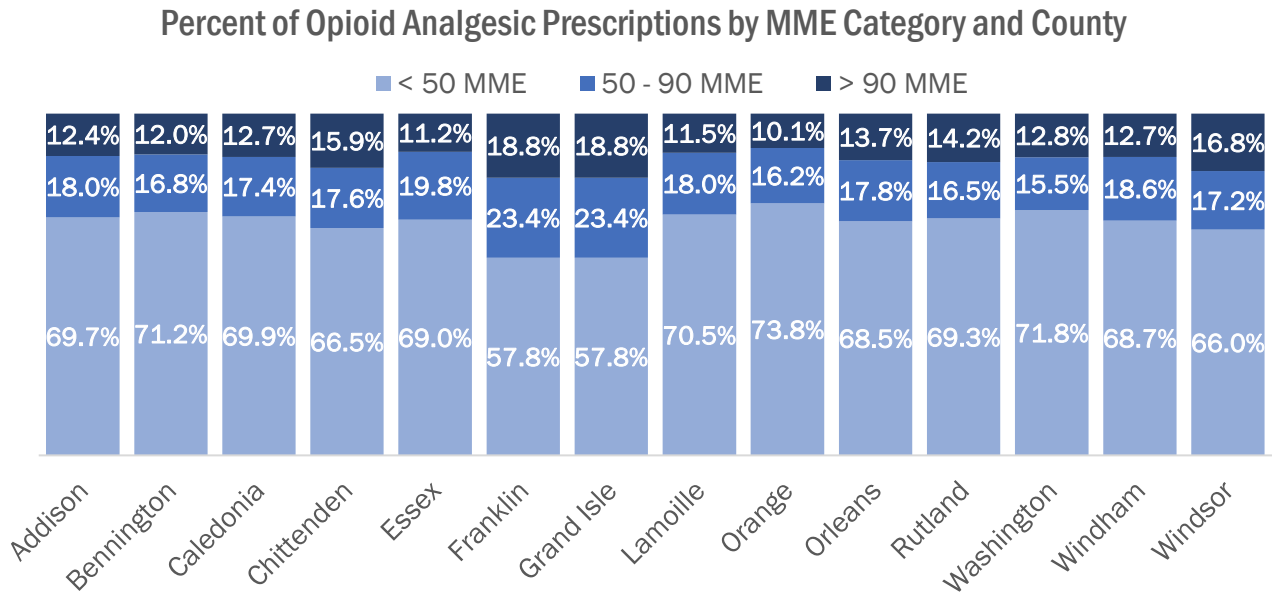
Without diagnosis information, interpreting these trends can be challenging. The increase in prescriptions with low average daily MME may be partially due to Tramadol rescheduling in mid-2014 because of Tramadol’s frequent use and categorization as a low MME prescription (<50 MME).

*Figure 19: Percent of Opioid Analgesic Prescriptions by Average Daily MME Category*



In 2018, average daily MME by county were typically similar to the state level. However, Franklin, Grand Isle, and Windsor Counties had the greatest percentage of high MME opioid analgesic use and Orange County had the lowest. ([Fig. 20](#))

Figure 20: Percent of Opioid Analgesic Prescriptions by MME Category and County

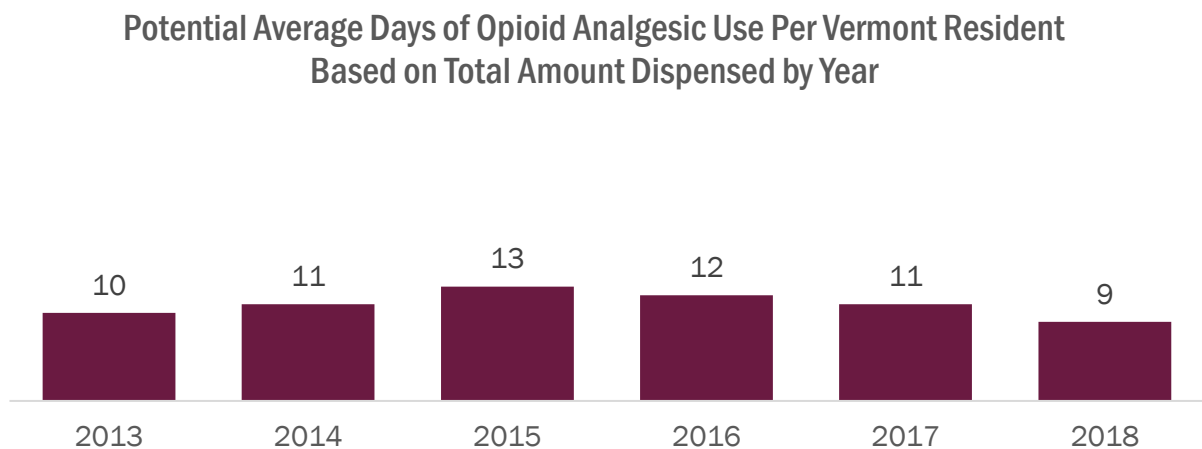


Long-term opioid use often begins with treatment of acute pain. The CDC notes that in cases of acute pain, more than a few days of exposure to opioid analgesics significantly increases hazards and risk of overdose.<sup>1</sup> Supplying three or fewer days of opioids in an initial opioid analgesic prescription reduces the likelihood of chronic opioid use. CDC guidelines indicate that taking even a low-dose opioid for more than 3 months increases the risk of addiction by 15 times.<sup>2</sup> Each day of unnecessary opioid use increases likelihood of physical dependence. Prescriptions with fewer days' supply also minimize the number of pills available for unintentional or intentional diversion.

The VPMS does not include the diagnosis for which a substance has been prescribed, so use associated with acute or chronic pain is unknown.

In 2018, the total days' supply of opioid analgesics dispensed in VT was enough for each resident to use opioids for 9 days a year. (Fig. 21) The days' supply is specified by the prescriber and transmitted to VPMS as part of the prescription information.

*Figure 21: Potential Average Days of Opioid Analgesic Use Per Vermont Resident, Based on Total Amount Dispensed by Year*



---

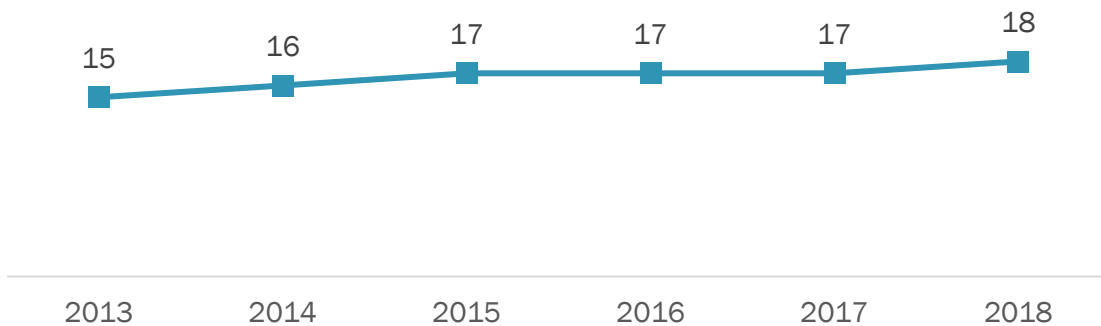
<sup>2</sup> Shah A, Hayes CJ, Martin BC. Characteristics of Initial Prescription Episodes and Likelihood of Long-Term Opioid Use – United States, 2006–2015. MMWR Morbidity & Mortality Weekly Rep 2017;66:265–269. DOI: <http://dx.doi.org/10.15585/mmwr.mm6610a1>

Since 2013, the average days' supply per opioid analgesic prescription has increased from 15 days to 18 days. Between 2015 and 2017, the average days' supply per prescription stayed the same. It increased slightly in 2018. ([Fig. 22](#))

While it is not possible to fully understand why the average days supply has increased without diagnosis information, it is likely that the increase is due to less frequent prescribing of opioid analgesics for acute pain in response to the Rule, resulting in an observed increase in the portion of prescriptions associated with chronic pain (which are typically longer). In this situation, the increased average days supply would be an expected result.

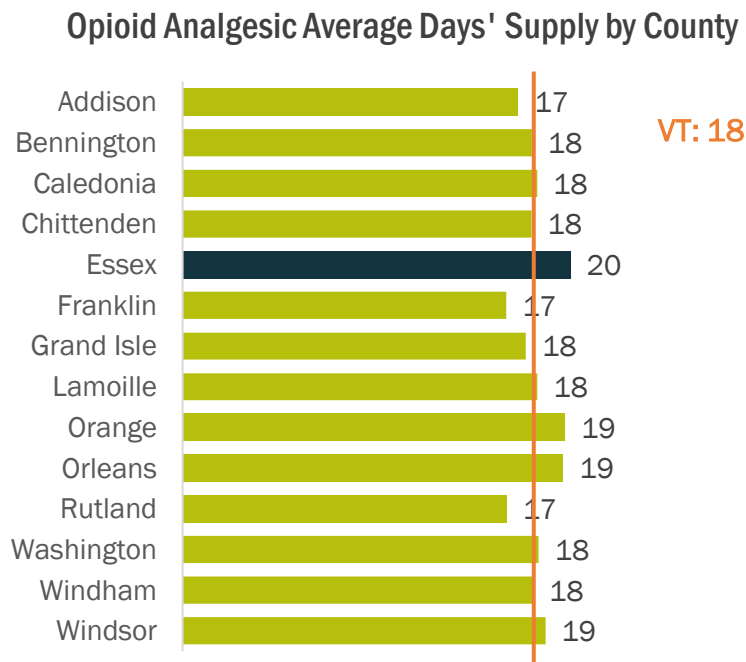
*Figure 22: Average Days' Supply per Opioid Analgesic Prescription*

### Average Days' Supply per Opioid Analgesic Prescription



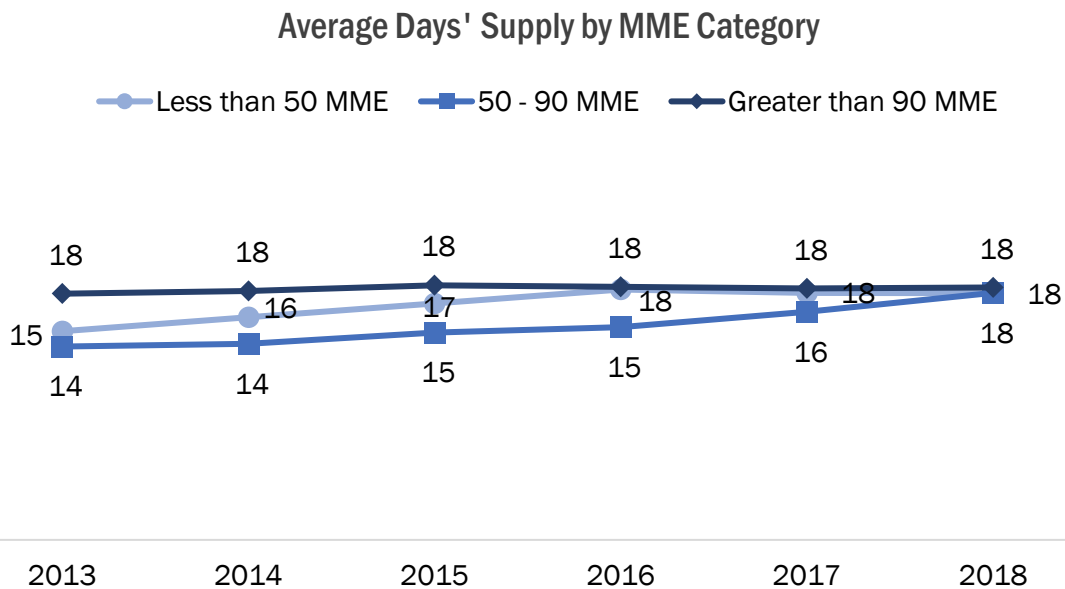
In 2018, Essex County had the highest average days' supply at 20 days. ([Fig. 23](#))

Figure 23: Opioid Analgesic Average Days' Supply by County



Average days supply has been relatively stable over time for greater than 90 MME prescriptions, while the lower MME prescriptions have slightly increased. ([Fig. 24](#))

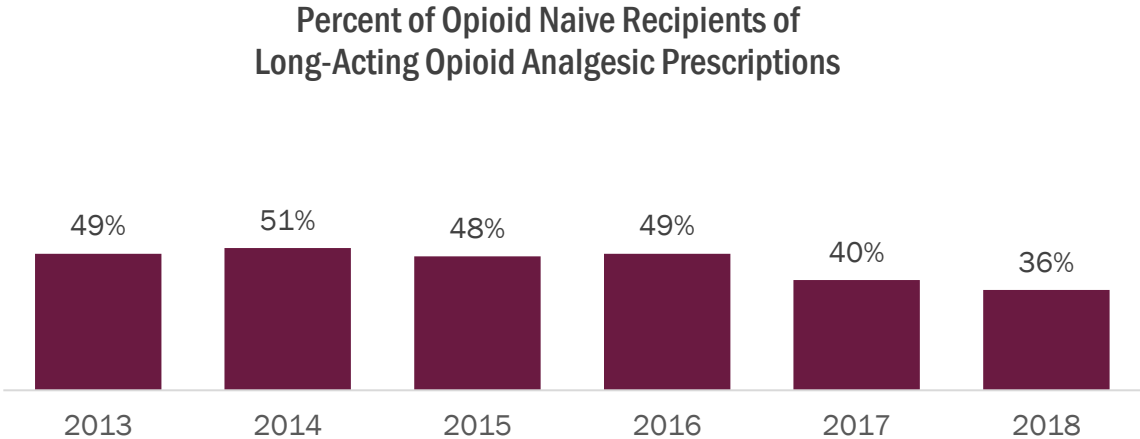
Figure 24: Average Days' Supply by MME Category





VPMS considers patients to be opioid naïve when they have received no long-acting (LA) opioid prescriptions within the last 30 days. In 2018, 36% of long-acting opioid prescription recipients were opioid-naïve when they received their prescription, down from the high of 51% in 2014. ([Fig. 25](#))

Figure 25: Percent of Opioid Naïve Recipients of Long-acting Opioid Analgesic Prescriptions



## Medication Assisted Treatment (MAT) Prescribing Patterns

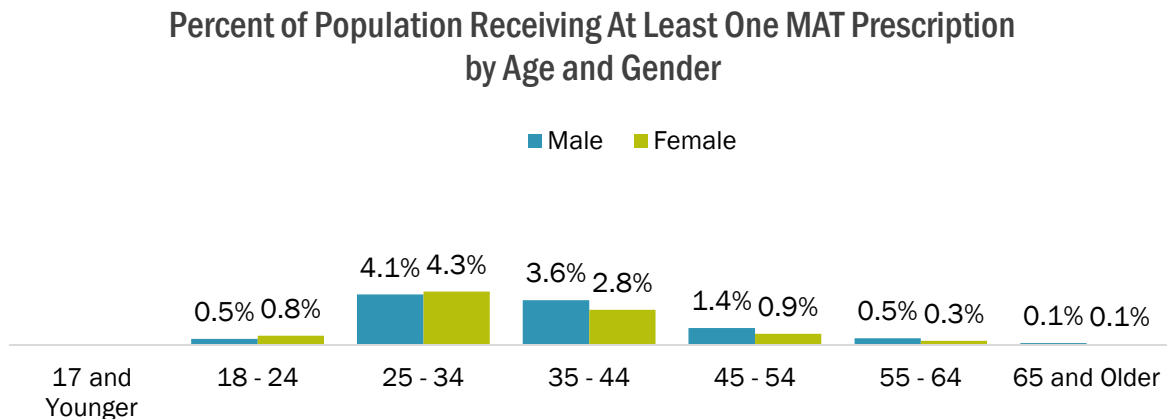
There was a 76% increase in the number of prescriptions dispensed for MAT to treat opioid use disorder (OUD) between 2013 and 2018. ([Appendix Table 13](#)) This increase is consistent with the statewide increases in access to MAT.

These numbers do not include information about people who receive treatment in specialty treatment facilities that dispense buprenorphine or methadone, known as “hubs.” Buprenorphine or methadone used in “hubs” are dispensed directly to the patient at the facility and do not appear in the VPMS. Approximately 40% of people receiving MAT for OUD receive care through a hub so the number of people on MAT that VPMS represents is approximately 60% of all to whom MAT is provided. Current hub and spoke census information is available on the VDH ADAP [website](#).

Only individuals who received a prescription from an office based opioid treatment (OBOT) provider, also known as a “spoke,” are reflected in VPMS data because the prescriptions are dispensed by a pharmacy.

Males and females were nearly equally likely to be prescribed MAT drugs in every age category. People age 25-34 were most likely to receive a MAT prescription. ([Fig. 26](#))

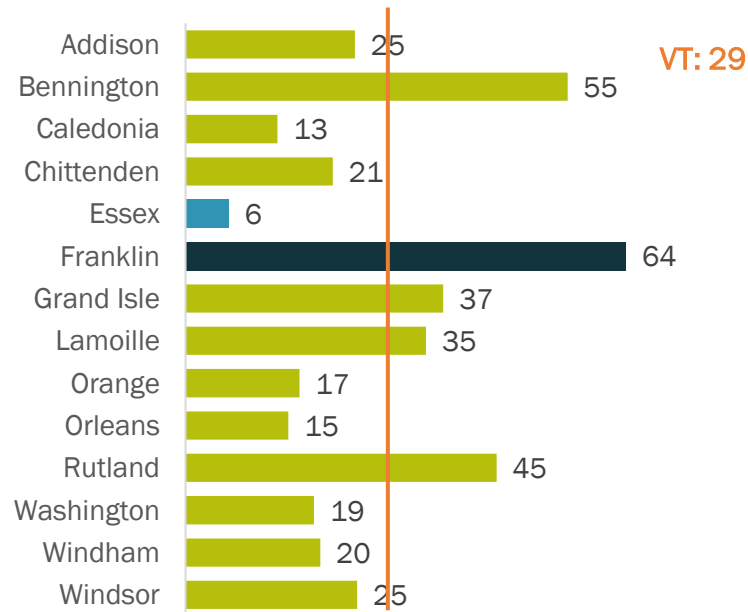
*Figure 26: Percent of Population Receiving at Least One MAT Prescription by Age and Gender*



MAT prescriptions by county shown below are associated with people receiving care in spokes. (Fig. 27) Counties with high rates of treatment in spokes typically have low rates of treatment in hubs and vice versa.

Figure 27: Number of MAT Prescriptions per 100 Residents by County

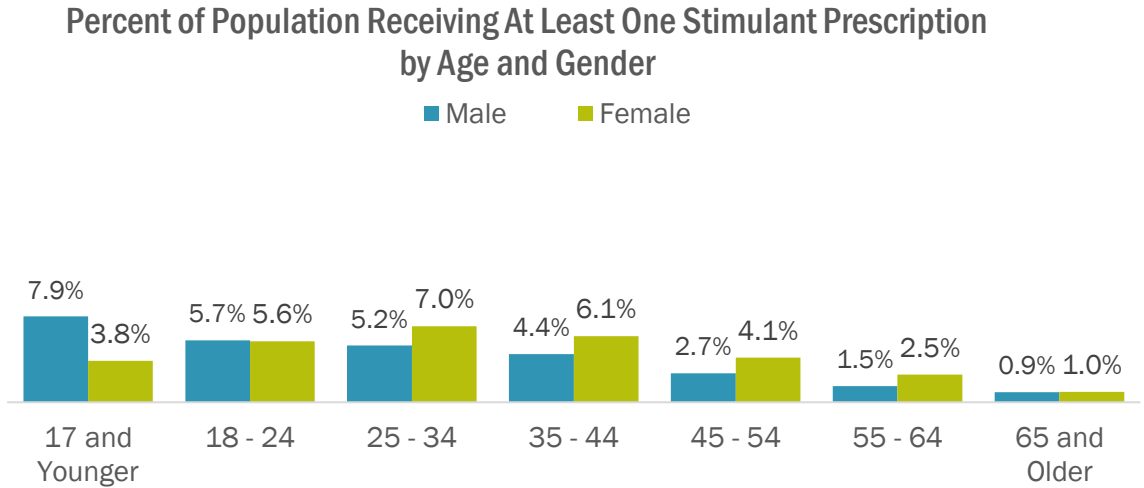
### Number of MAT Prescriptions per 100 Residents by County



## Stimulant Prescribing Patterns

The total number of stimulant prescriptions dispensed increased approximately 28% between 2013 and 2018. ([Appendix Table 13](#)) Males under the age of 18 were prescribed stimulants at more than twice the rate of females. Between 18 and 24 years of age, both genders were prescribed stimulants at a similar rate. In categories over the age of 25, females were more likely to be prescribed stimulants. ([Fig. 28](#))

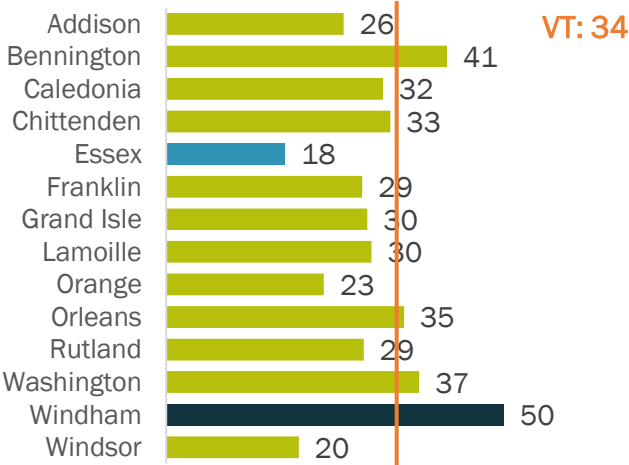
Figure 28: Percent of Population Receiving At Least One Stimulant Prescription by Age and Gender



There is significant county to county variation in the number of stimulant prescriptions per 100 residents with Windham county 47% higher than state average of 34 stimulant prescriptions per 100 residents. ([Fig. 29](#))

Figure 29: Number of Stimulant Prescriptions per 100 Residents by County

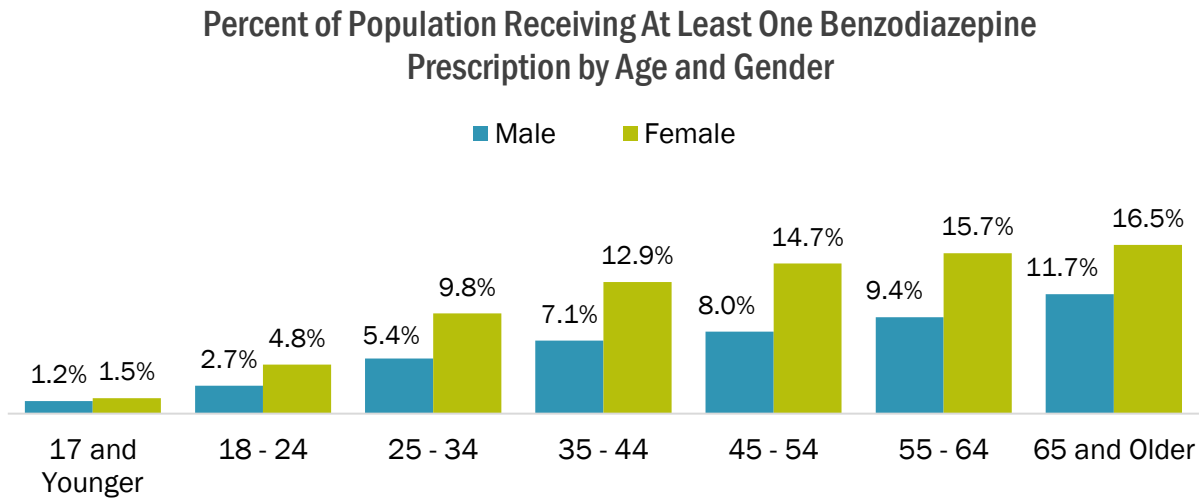
**Number of Stimulant Prescriptions per 100 Residents By County**



## Benzodiazepine Prescribing Patterns

The number of prescriptions dispensed for benzodiazepines decreased 13.3% between 2013 and 2018. ([Appendix Table 13](#)) Females in all age categories were more likely to receive prescriptions for benzodiazepines than men. Benzodiazepines dispensed increased as people age. ([Fig. 30](#))

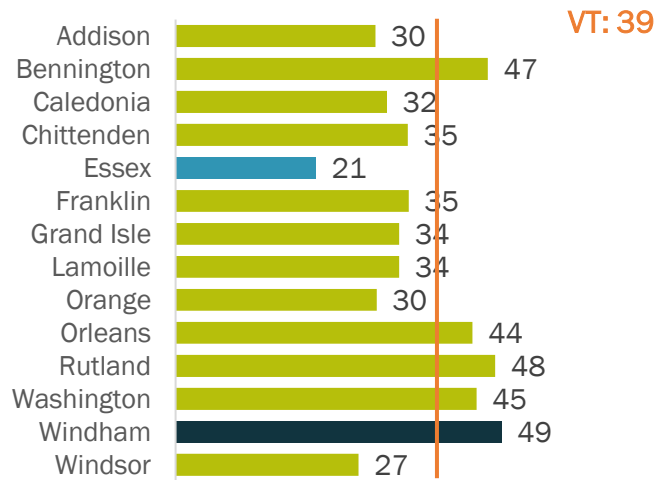
Figure 30: Percent of Population Receiving At Least One Benzodiazepine Prescription by Age and Gender



There are significant differences in benzodiazepine prescribing rates by county with Windham, Rutland, Bennington, Washington, and Orleans counties all higher than the state rate of 39 prescriptions per 100 residents ([Fig.31](#)).

Figure 31: Benzodiazepine Prescriptions Dispensed per 100 Residents by County

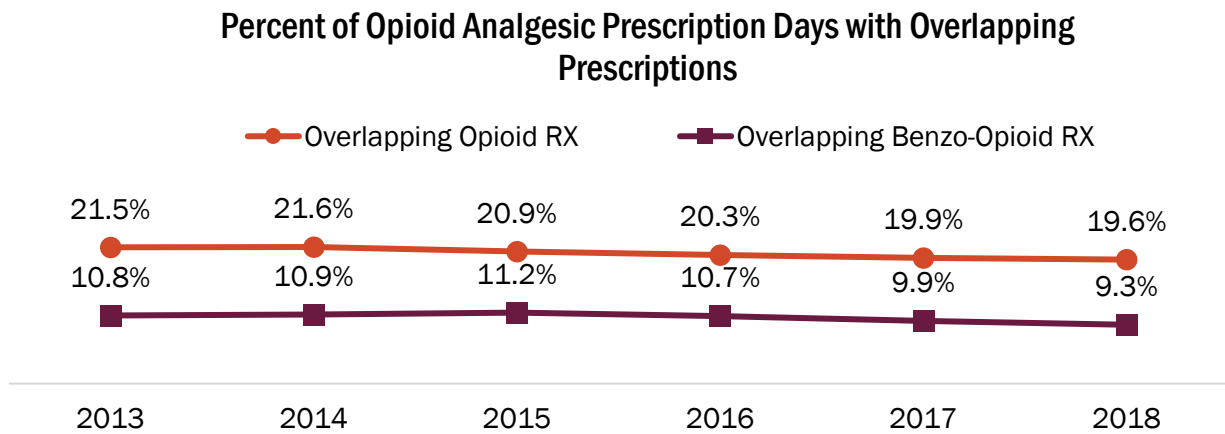
### Benzodiazepine Prescriptions Dispensed per 100 Residents by County



## Prescription Issues of Concern

Simultaneous use of opioid analgesics and benzodiazepines is a risk factor for prescription misuse or overdose, as is receiving overlapping opioid analgesic prescriptions. Among individuals with an opioid analgesic prescription, one in five prescription days overlapped with a second opioid analgesic prescription (19.6%). Nearly one in ten opioid analgesic prescription days overlapped with a benzodiazepine prescription (9.3%). ([Fig. 32](#))

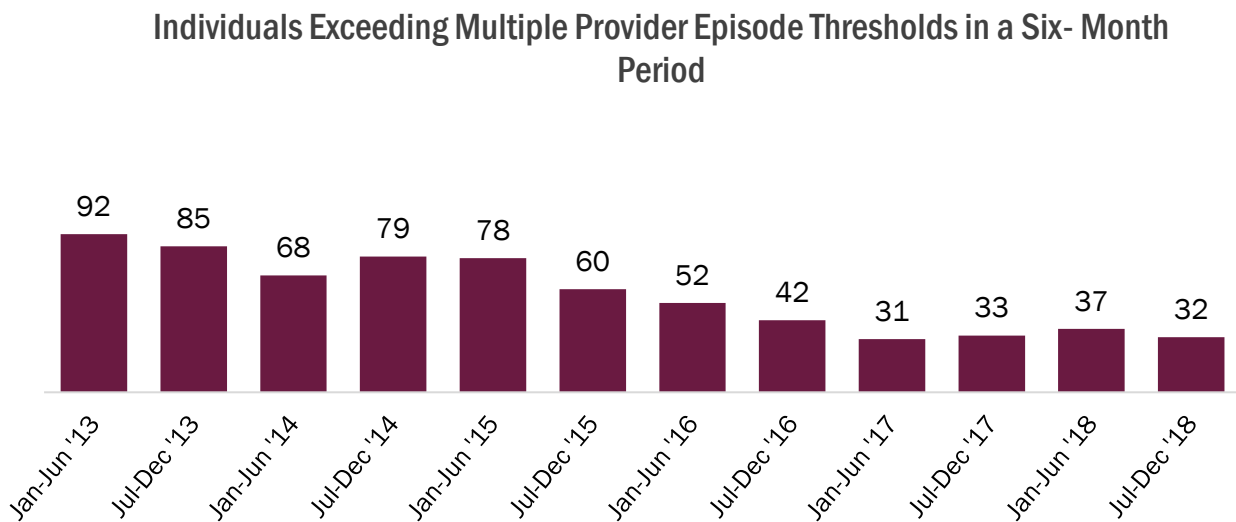
Figure 32: Percent of Opioid Analgesic Prescription Days with Overlapping Prescriptions





Receiving prescriptions from multiple prescribers and pharmacies within a given period, or a “Multiple Provider Episode,” has historically been used as a measure of potential misuse or diversion, as it may show that an individual is purposefully receiving prescriptions from multiple providers without a clinical need. However, there may be legitimate reasons for surpassing the threshold, such as patients with cancer or in hospice. During the first half of 2018, 37 individuals exceeded the multiple provider thresholds set by the VPMS program. This means that these individuals received prescriptions filled at multiple pharmacies and were prescribed by multiple prescribers within a six-month period. In the second half of 2018, 32 individuals exceeded the thresholds. These numbers have been generally decreasing since 2015. (Fig. 33)

Figure 33: Individuals Exceeding Multiple Provider Thresholds in a Six-Month Period



## Conclusion

Vermont has improved the VPMS platform and tools available to better assist prescribers and pharmacists in providing care to their patients. This, along with greater awareness of opioid use disorder and the changes in the *Rule for the Prescribing of Opioids for Pain*, has resulted in a reduction in opioid analgesics dispensed in the State. Simultaneously, there has been an increase in the availability of medication assisted treatment (MAT) for opioid use disorders as shown in the increase in MAT prescribing. These prescribing trends suggest that Vermont is making progress in addressing the opioid epidemic.

The VPMS continues to be an effective tool for monitoring trends in the use of scheduled drugs that may lead to dependence, and for identifying areas where messaging to the general public, prescribers, and pharmacists may be advantageous to improving the health of Vermonters.

Further analysis of VPMS data remains a priority to proactively identify developing trends of concern such as the increasing dispensing of prescription stimulants. Analysis of the use of short-acting and long-acting opioid analgesics may provide insight and opportunities to inform changes in prescribing practices.

Opportunities for system improvements remain. These include continuing to assess new tools provided through the VPMS that assist prescribers in provision of care, increasing the number of states with whom Vermont shares data, and allowing linkages between the VPMS and electronic health records.

If you would like to provide feedback on this report please click here to complete a short survey: <https://www.surveymzmo.com/s3/5415956/2018-VPMS-Annual-Report-Feedback>

## APPENDIX: DATA TABLES

Appendix Table 1: Percent of Population Receiving at Least One Prescription by Drug Class (2018)

County	Opioid Analgesic	Benzodiazepine	MAT	Stimulant
Addison	10.6%	7.3%	1.2%	3.0%
Bennington	12.6%	9.6%	1.6%	4.4%
Caledonia	11.3%	7.2%	0.7%	3.5%
Chittenden	9.4%	8.4%	0.8%	3.7%
Essex	7.6%	4.8%	0.3%	2.2%
Franklin	11.9%	7.3%	1.9%	2.6%
Grand Isle	13.5%	8.2%	1.5%	3.3%
Lamoille	11.8%	9.0%	1.4%	3.4%
Orange	8.5%	6.9%	0.8%	2.9%
Orleans	13.0%	9.4%	0.6%	3.6%
Rutland	13.8%	9.3%	1.9%	3.2%
Washington	10.9%	9.1%	0.9%	4.0%
Windham	12.1%	9.7%	0.9%	5.6%
Windsor	7.7%	6.1%	1.1%	2.4%
<b>VERMONT</b>	<b>11.6%</b>	<b>8.6%</b>	<b>1.1%</b>	<b>3.8%</b>

See also [Figure 3](#)

Appendix Table 2: Percent of Population Receiving at Least One Opioid Analgesic Prescription (Trend)

Nearly all VT counties show a decrease in the proportion of the population with an opioid analgesic prescription over time. However, many counties show a slight increase in the percent of the population with an opioid analgesic prescription between 2013 and 2015, followed by decreases between 2015 and 2018.

County	2013	2014	2015	2016	2017	2018
Addison	15.3%	15.4%	15.9%	14.4%	12.5%	10.6%
Bennington	18.2%	19.2%	19.6%	17.4%	15.0%	12.6%
Caledonia	15.7%	15.7%	16.5%	15.4%	13.5%	11.3%
Chittenden	14.0%	14.3%	14.5%	13.0%	11.2%	9.4%
Essex	10.6%	10.8%	11.4%	11.1%	8.9%	7.6%
Franklin	17.0%	17.9%	18.5%	16.4%	14.0%	11.9%
Grand Isle	18.7%	18.9%	19.5%	17.4%	15.0%	13.5%
Lamoille	18.6%	19.2%	19.2%	16.2%	13.6%	11.8%
Orange	12.5%	12.6%	13.3%	11.2%	9.8%	8.5%
Orleans	17.9%	18.1%	18.8%	16.2%	15.1%	13.0%
Rutland	20.0%	20.6%	20.7%	19.2%	16.6%	13.8%
Washington	16.6%	16.3%	16.8%	14.9%	13.3%	10.9%
Windham	16.6%	17.2%	18.4%	16.9%	14.1%	12.1%
Windsor	12.1%	12.5%	13.6%	11.8%	9.4%	7.7%
<b>VERMONT</b>	<b>16.9%</b>	<b>17.2%</b>	<b>17.9%</b>	<b>16.1%</b>	<b>13.8%</b>	<b>11.6%</b>

See also [Figure 3](#)

Appendix Table 3: Percent of Population Receiving at Least One Opioid Analgesic Prescription by Age (2018)

County	17 and Younger	18 – 24	25 – 34	35 – 44	45 – 54	55 – 64	65 and Older
Addison	2.2%	4.5%	10.5%	10.5%	13.3%	14.2%	18.2%
Bennington	2.3%	6.6%	11.4%	13.5%	14.2%	16.6%	20.9%
Caledonia	2.0%	7.0%	9.7%	11.6%	14.9%	16.4%	17.6%
Chittenden	2.1%	4.0%	7.0%	9.3%	12.3%	15.6%	19.1%
Essex	1.2%	6.3%	8.5%	8.4%	10.5%	8.8%	9.8%
Franklin	2.3%	9.7%	10.0%	12.6%	14.6%	18.7%	20.3%
Grand Isle	2.0%	10.7%	10.0%	14.2%	16.0%	18.3%	20.8%
Lamoille	2.3%	6.4%	10.2%	12.0%	14.1%	18.5%	20.4%
Orange	1.3%	5.1%	6.6%	8.6%	10.0%	12.6%	13.3%
Orleans	2.8%	8.6%	11.7%	13.4%	16.8%	17.7%	19.2%
Rutland	2.8%	7.6%	11.6%	14.5%	16.7%	19.4%	21.3%
Washington	1.5%	5.6%	9.5%	10.2%	12.8%	16.0%	19.2%
Windham	1.4%	8.3%	10.9%	12.6%	15.3%	15.9%	18.3%
Windsor	1.3%	5.0%	5.3%	6.7%	9.2%	10.6%	12.8%
<b>VERMONT</b>	<b>2.1%</b>	<b>6.3%</b>	<b>9.6%</b>	<b>11.6%</b>	<b>14.4%</b>	<b>17.1%</b>	<b>19.5%</b>

See also [Figure 4](#)

Appendix Table 4: Percent of Population Receiving at Least One Benzodiazepine Prescription by Age Group (2018)

County	17 and Younger	18 – 24	25 – 34	35 – 44	45 – 54	55 – 64	65 and Older
Addison	1.0%	2.0%	7.3%	8.1%	9.5%	10.5%	13.1%
Bennington	1.6%	3.9%	7.8%	11.5%	12.7%	13.3%	15.4%
Caledonia	1.2%	2.7%	6.2%	8.7%	9.6%	10.2%	11.9%
Chittenden	1.5%	2.6%	7.3%	10.3%	12.0%	13.8%	16.0%
Essex	0.5%	2.1%	4.4%	5.3%	5.5%	7.0%	7.2%
Franklin	1.1%	3.5%	6.1%	7.9%	9.8%	11.3%	13.5%
Grand Isle	0.9%	3.6%	7.1%	7.7%	10.1%	11.2%	13.6%
Lamoille	3.2%	5.4%	7.5%	9.5%	11.7%	13.3%	13.8%
Orange	0.8%	2.5%	7.9%	9.4%	7.8%	9.5%	10.1%
Orleans	0.9%	3.5%	7.4%	11.0%	12.4%	14.5%	14.6%
Rutland	1.7%	5.1%	7.2%	11.0%	12.3%	12.8%	14.0%
Washington	1.0%	3.6%	8.1%	11.2%	12.1%	13.3%	14.8%
Windham	1.1%	4.7%	9.8%	11.0%	12.5%	13.1%	14.5%
Windsor	0.7%	2.9%	4.7%	5.9%	7.6%	8.2%	10.0%
<b>VERMONT</b>	<b>1.4%</b>	<b>3.7%</b>	<b>7.5%</b>	<b>10.0%</b>	<b>11.4%</b>	<b>12.6%</b>	<b>14.3%</b>

See also [Figure 4](#)

Appendix Table 5: Percent of Population Receiving at Least One MAT Prescription by Age Group (2018)

County	17 and Younger	18 – 24	25 – 34	35 – 44	45 – 54	55 – 64	65 and Older
Addison	--	0.8%	5.9%	3.2%	0.9%	0.3%	0.1%
Bennington	--	1.5%	8.0%	4.7%	1.4%	0.4%	0.1%
Caledonia	--	0.4%	2.6%	2.2%	0.7%	0.3%	0.1%
Chittenden	--	0.2%	2.5%	2.6%	1.1%	0.4%	0.1%
Essex	--	0.3%	2.0%	1.2%	0.1%	0.1%	--
Franklin	--	1.8%	7.8%	5.1%	1.4%	0.4%	0.1%
Grand Isle	--	0.4%	7.2%	3.4%	1.7%	0.7%	0.1%
Lamoille	--	0.8%	6.6%	3.7%	0.9%	0.4%	0.1%
Orange	--	0.7%	3.5%	1.6%	0.7%	0.3%	0.1%
Orleans	--	0.2%	2.1%	2.1%	0.7%	0.2%	0.1%
Rutland	--	1.5%	8.7%	6.0%	1.9%	0.5%	0.1%
Washington	--	0.6%	3.8%	2.6%	0.9%	0.4%	0.1%
Windham	--	0.5%	2.7%	2.8%	1.4%	0.6%	0.1%
Windsor	--	1.3%	4.2%	3.1%	1.3%	0.4%	0.1%
<b>VERMONT</b>	--	<b>0.6%</b>	<b>4.2%</b>	<b>3.2%</b>	<b>1.1%</b>	<b>0.4%</b>	<b>0.1%</b>

-- indicates no individuals or prescriptions in a particular category.

See also [Figure 4](#)

Appendix Table 6: Percent of Population Receiving at Least One Stimulant Prescription by Age Group (2018)

County	17 and Younger	18 – 24	25 – 34	35 – 44	45 – 54	55 – 64	65 and Older
Addison	6.9%	3.8%	4.6%	3.7%	2.4%	1.3%	0.8%
Bennington	8.8%	6.3%	6.3%	7.3%	3.9%	2.0%	0.9%
Caledonia	6.5%	4.1%	5.9%	4.9%	2.9%	2.0%	0.9%
Chittenden	5.3%	3.8%	6.0%	5.4%	3.5%	2.4%	1.0%
Essex	3.3%	3.7%	4.4%	4.6%	2.4%	0.7%	0.4%
Franklin	4.5%	3.7%	4.1%	3.2%	1.9%	1.0%	0.5%
Grand Isle	5.9%	5.1%	5.7%	6.0%	2.2%	1.6%	0.9%
Lamoille	4.1%	4.0%	5.9%	5.5%	3.4%	2.3%	0.8%
Orange	5.8%	3.9%	4.6%	3.5%	2.3%	1.5%	0.8%
Orleans	5.5%	4.6%	7.5%	6.4%	3.4%	1.5%	0.6%
Rutland	6.9%	3.9%	4.6%	4.6%	2.9%	1.5%	0.6%
Washington	5.3%	4.6%	7.8%	6.5%	4.2%	2.4%	1.2%
Windham	8.4%	9.1%	10.1%	8.3%	5.9%	3.1%	1.5%
Windsor	4.4%	4.4%	3.8%	2.8%	2.2%	1.4%	0.7%
VERMONT	5.9%	5.7%	6.1%	5.2%	3.4%	2.0%	0.9%

See also [Figure 4](#)



Appendix Table 7: Percent of Population Receiving at Least One Opioid Analgesic Prescription by Gender (2018)

County	Male	Female
Addison	9.6%	11.6%
Bennington	11.4%	13.7%
Caledonia	10.6%	12.1%
Chittenden	8.3%	10.3%
Essex	7.0%	8.1%
Franklin	10.6%	13.4%
Grand Isle	12.0%	14.8%
Lamoille	10.6%	13.0%
Orange	7.9%	9.1%
Orleans	11.8%	14.2%
Rutland	12.2%	15.5%
Washington	9.8%	11.9%
Windham	10.9%	13.2%
Windsor	7.2%	8.2%
VERMONT	10.6%	12.5%

See also [Figure 5](#)

Appendix Table 8: Percent of Population Receiving at Least One Benzodiazepine Prescription by Gender (2018)

County	Male	Female
Addison	5.1%	9.5%
Bennington	6.8%	12.3%
Caledonia	5.9%	8.6%
Chittenden	6.1%	10.6%
Essex	4.1%	5.5%
Franklin	5.5%	9.1%
Grand Isle	6.0%	10.4%
Lamoille	7.1%	10.9%
Orange	5.6%	8.2%
Orleans	6.9%	11.9%
Rutland	6.7%	11.8%
Washington	6.6%	11.6%
Windham	6.8%	12.5%
Windsor	4.4%	7.6%
VERMONT	6.4%	10.8%

See also [Figure 5](#)

Appendix Table 9: Percent of Population Receiving at Least One MAT Prescription by Gender (2018)

County	Male	Female
Addison	0.9%	1.4%
Bennington	1.7%	1.5%
Caledonia	0.7%	0.7%
Chittenden	0.9%	0.7%
Essex	0.3%	0.3%
Franklin	2.0%	1.9%
Grand Isle	1.5%	1.5%
Lamoille	1.4%	1.3%
Orange	0.8%	0.7%
Orleans	0.6%	0.6%
Rutland	2.1%	1.8%
Washington	1.0%	0.8%
Windham	1.0%	0.8%
Windsor	1.2%	1.0%
VERMONT	1.2%	1.0%

See also [Figure 5](#)

Appendix Table 10: Percent of Population Receiving at Least One Stimulant Prescription by Gender (2018)

County	Male	Female
Addison	3.1%	3.0%
Bennington	4.6%	4.3%
Caledonia	3.9%	3.2%
Chittenden	3.8%	3.7%
Essex	2.4%	1.9%
Franklin	2.9%	2.4%
Grand Isle	3.2%	3.4%
Lamoille	3.3%	3.6%
Orange	3.3%	2.6%
Orleans	3.7%	3.5%
Rutland	3.2%	3.1%
Washington	4.1%	4.0%
Windham	5.4%	5.7%
Windsor	2.5%	2.3%
VERMONT	3.9%	3.7%

See also [Figure 5](#)

Appendix Table 11: Number of Prescriptions per 100 Residents by Drug Class (2018)

County	Opioid Analgesic	Benzodiazepine	MAT	Stimulant
Addison	43.7	29.9	24.5	26.1
Bennington	57.4	46.8	55.3	41.4
Caledonia	49.1	31.7	13.3	31.9
Chittenden	41.9	34.8	21.3	33.0
Essex	37.2	21.0	6.2	17.5
Franklin	76.7	34.9	63.8	28.9
Grand Isle	69.1	33.5	37.3	29.6
Lamoille	52.4	33.5	34.8	30.3
Orange	36.6	30.1	16.5	23.2
Orleans	63.1	44.5	14.9	35.0
Rutland	60.1	47.9	45.0	29.1
Washington	48.8	45.1	18.6	37.3
Windham	55.2	48.8	19.5	49.7
Windsor	34.0	27.4	24.8	19.5
<b>VERMONT</b>	<b>52.7</b>	<b>39.3</b>	<b>29.4</b>	<b>33.9</b>

See also [Figure 6](#)

Appendix Table 12: Total Number of Prescriptions by Drug Class and County (2018)

County	Opioid Analgesic	Benzodiazepine	MAT	Stimulant
Addison	16,140	11,072	9,064	9,663
Bennington	20,444	16,678	19,700	14,738
Caledonia	14,872	9,599	4,031	9,681
Chittenden	68,998	57,318	35,085	54,366
Essex	2,323	1,314	390	1,095
Franklin	37,883	17,268	31,522	14,268
Grand Isle	4,897	2,377	2,645	2,100
Lamoille	13,256	8,481	8,807	7,654
Orange	10,601	8,740	4,790	6,738
Orleans	16,971	11,973	4,007	9,430
Rutland	35,289	28,102	26,409	17,067
Washington	28,350	26,241	10,813	21,665
Windham	23,599	20,885	8,341	21,271
Windsor	18,808	15,166	13,725	10,802
<b>VERMONT**</b>	<b>329,895</b>	<b>246,100</b>	<b>184,212</b>	<b>212,214</b>

\*\*Note: The number of prescriptions by county will not equal the total number of prescriptions statewide for a specific year. Not all prescriptions in VPMS have correct address information; therefore, some prescriptions cannot be assigned to a county.

See also [Figure 7](#)

Appendix Table 13: Total Number of Prescriptions by Drug Class (Trend)

Year	Opioid Analgesic	Benzodiazepine	MAT	Stimulant
2013	409,181	283,776	104,510	165,620
2014	426,367	285,468	113,020	174,479
2015	470,534	286,519	132,257	187,269
2016	421,656	266,614	148,923	191,307
2017	379,530	259,200	167,570	205,263
2018	329,895	246,100	184,212	212,214

See also [Figure 7](#)

Appendix Table 14: Percent of Opioid Analgesic Prescriptions by Gender (2018)

Generally, the proportions of prescriptions by gender by county are similar to the statewide totals ([Fig. 8](#)). However, in Essex County, most opioid analgesic prescriptions are dispensed to men.

County	Male	Female
Addison	44.6%	55.4%
Bennington	43.9%	56.1%
Caledonia	49.2%	50.8%
Chittenden	42.5%	57.5%
Essex	52.0%	48.0%
Franklin	45.2%	54.8%
Grand Isle	41.3%	58.7%
Lamoille	45.6%	54.4%
Orange	48.6%	51.4%
Orleans	47.6%	52.4%
Rutland	42.7%	57.3%
Washington	45.5%	54.5%
Windham	44.4%	55.6%
Windsor	47.2%	52.9%
VERMONT	45.6%	54.4%

See also [Figure 8](#)



Appendix Table 15: Percent of Benzodiazepine Prescriptions by Gender (2018)

County	Male	Female
Addison	35.7%	64.3%
Bennington	33.4%	66.6%
Caledonia	40.4%	59.6%
Chittenden	36.2%	63.8%
Essex	41.5%	58.5%
Franklin	38.6%	61.4%
Grand Isle	36.6%	63.4%
Lamoille	39.2%	60.8%
Orange	41.5%	58.5%
Orleans	37.1%	62.9%
Rutland	36.8%	63.2%
Washington	37.1%	62.9%
Windham	33.0%	67.0%
Windsor	35.6%	64.4%
VERMONT	37.0%	63.0%

See also [Figure 8](#)

Appendix Table 16: Percent of MAT Prescriptions by Gender (2018)

The gender distribution of MAT prescriptions varies by county. In most counties, females receive a slight majority of MAT prescriptions. However, in Caledonia, Washington, and Windham Counties males receive a slight majority of MAT prescriptions.

County	Male	Female
Addison	49.5%	50.5%
Bennington	43.7%	56.3%
Caledonia	52.4%	47.6%
Chittenden	48.7%	51.3%
Essex	46.2%	53.9%
Franklin	49.9%	50.1%
Grand Isle	42.5%	57.5%
Lamoille	47.8%	52.2%
Orange	47.6%	52.4%
Orleans	45.6%	54.4%
Rutland	49.5%	50.5%
Washington	51.6%	48.4%
Windham	52.8%	47.3%
Windsor	49.0%	51.0%
VERMONT	49.3%	50.7%

See also [Figure 8](#)

Appendix Table 17: Percent of Stimulant Prescriptions by Gender (2018)

County	Male	Female
Addison	54.1%	45.9%
Bennington	53.9%	46.1%
Caledonia	54.7%	45.3%
Chittenden	50.6%	49.4%
Essex	55.0%	45.0%
Franklin	55.4%	44.6%
Grand Isle	49.6%	50.4%
Lamoille	47.8%	52.3%
Orange	57.6%	42.4%
Orleans	53.3%	46.7%
Rutland	51.4%	48.6%
Washington	50.4%	49.6%
Windham	47.6%	52.4%
Windsor	52.6%	47.4%
VERMONT	51.7%	48.3%

See also [Figure 8](#)

Appendix Table 18: Percent of Opioid Analgesic Prescriptions by Age Group (2018)

The age group distribution for opioid analgesic recipients by county is similar to the state totals (Fig. 9), with the majority of prescriptions dispensed to people 55 or older.

County	17 and Younger	18 – 24	25 – 34	35 – 44	45 – 54	55 – 64	65 and Older
Addison	1.0%	1.9%	6.6%	10.2%	15.5%	28.5%	36.3%
Bennington	1.0%	1.4%	5.1%	9.8%	16.1%	27.3%	39.4%
Caledonia	0.9%	1.7%	4.5%	9.9%	19.4%	28.9%	34.7%
Chittenden	1.0%	1.9%	5.6%	10.1%	18.1%	29.4%	33.9%
Essex	0.7%	1.3%	4.5%	9.6%	17.2%	31.4%	35.3%
Franklin	0.8%	1.5%	6.6%	12.8%	24.7%	28.9%	24.8%
Grand Isle	0.6%	1.1%	4.2%	11.4%	23.9%	31.4%	27.4%
Lamoille	1.0%	1.5%	5.1%	11.5%	18.6%	29.8%	32.4%
Orange	0.7%	1.3%	4.0%	10.2%	18.5%	30.5%	34.9%
Orleans	1.0%	1.5%	5.0%	10.1%	19.9%	26.9%	35.6%
Rutland	1.0%	1.8%	4.8%	9.1%	17.6%	29.5%	36.2%
Washington	0.7%	1.4%	5.0%	9.2%	20.0%	27.4%	36.4%
Windham	0.5%	1.7%	5.4%	9.8%	17.0%	30.7%	35.0%
Windsor	0.7%	1.3%	3.7%	9.3%	17.9%	29.3%	37.8%
VERMONT	0.9%	1.7%	5.4%	10.2%	18.8%	28.9%	34.2%

See also [Figure 9](#)

Appendix Table 19: Percent of Benzodiazepine Prescriptions by Age Group (2018)

The age group distribution for benzodiazepine prescription recipients by county is similar to the state totals (Fig. 9), with the majority of prescriptions dispensed to people 55 or older.

County	17 and Younger	18 – 24	25 – 34	35 – 44	45 – 54	55 – 64	65 and Older
Addison	1.4%	1.9%	9.0%	10.5%	15.9%	25.0%	36.3%
Bennington	1.8%	2.5%	6.7%	12.1%	17.6%	24.7%	34.6%
Caledonia	1.7%	1.8%	8.5%	12.3%	19.7%	24.2%	31.8%
Chittenden	1.7%	3.0%	9.4%	12.9%	17.8%	25.3%	30.0%
Essex	1.1%	0.9%	8.2%	9.1%	18.2%	29.1%	33.3%
Franklin	1.3%	1.8%	10.0%	11.8%	19.5%	24.9%	30.6%
Grand Isle	0.5%	2.3%	7.5%	10.6%	19.7%	28.9%	30.5%
Lamoille	2.6%	2.6%	8.8%	12.2%	19.8%	25.2%	28.7%
Orange	1.5%	1.6%	10.7%	15.6%	15.9%	26.1%	28.6%
Orleans	1.0%	1.4%	6.4%	11.0%	18.0%	25.7%	36.6%
Rutland	1.6%	2.4%	7.1%	12.5%	17.9%	26.9%	31.6%
Washington	0.9%	2.2%	9.3%	14.9%	18.9%	24.2%	29.7%
Windham	0.9%	2.3%	10.3%	11.9%	16.1%	26.0%	32.5%
Windsor	0.9%	2.2%	6.8%	12.1%	17.3%	25.3%	35.5%
<b>VERMONT</b>	<b>1.4%</b>	<b>2.6%</b>	<b>8.8%</b>	<b>12.5%</b>	<b>17.7%</b>	<b>25.3%</b>	<b>31.7%</b>

See also [Figure 9](#)

Appendix Table 20: Percent of MAT Prescriptions by Age Group (2018)

Most MAT prescriptions are dispensed to people between 25 and 44 years of age. This is consistent across counties.

County	17 and Younger	18 – 24	25 – 34	35 – 44	45 – 54	55 – 64	65 and Older
Addison	--	5.0%	49.7%	29.9%	10.7%	3.6%	1.1%
Bennington	--	7.9%	49.6%	29.1%	10.4%	2.5%	0.6%
Caledonia	--	2.9%	40.1%	35.7%	13.4%	6.7%	1.3%
Chittenden	--	3.9%	42.4%	34.1%	12.5%	5.6%	1.5%
Essex	--	8.2%	51.8%	35.6%	0.3%	4.1%	--
Franklin	--	7.4%	51.1%	29.5%	9.0%	2.6%	0.5%
Grand Isle	--	0.7%	57.1%	22.8%	10.8%	8.2%	0.3%
Lamoille	--	5.5%	51.9%	32.6%	6.2%	3.0%	0.8%
Orange	--	5.6%	45.6%	26.3%	14.2%	7.0%	1.3%
Orleans	--	3.0%	34.6%	39.7%	16.2%	4.2%	2.3%
Rutland	--	5.5%	46.8%	31.4%	10.9%	4.1%	1.4%
Washington	--	3.4%	45.3%	31.4%	12.9%	5.4%	1.6%
Windham	--	3.2%	33.5%	34.5%	16.2%	10.1%	2.5%
Windsor	--	5.8%	42.5%	30.2%	12.2%	7.7%	1.7%
<b>VERMONT</b>	--	<b>5.3%</b>	<b>45.8%</b>	<b>31.4%</b>	<b>11.3%</b>	<b>4.9%</b>	<b>1.3%</b>

-- indicates no individuals or prescriptions in a particular category.

See also [Figure 9](#)

Appendix Table 21: Percent of Stimulant Prescriptions by Age Group (2018)

Stimulant prescriptions are most frequently dispensed to people under the age of 35, although there is variation by county. The counties with the highest proportion of stimulant prescriptions dispensed to people under 18 include Bennington, Orange, and Rutland with over 40% each; while the counties with the lowest proportion are Washington, Lamoille, and Chittenden (22.7%, 24%, and 24.4%).

County	17 and Younger	18 – 24	25 – 34	35 – 44	45 – 54	55 – 64	65 and Older
Addison	38.7%	12.5%	15.5%	12.9%	9.2%	6.6%	4.6%
Bennington	42.4%	9.3%	12.0%	16.0%	9.7%	7.0%	3.7%
Caledonia	36.7%	8.3%	15.8%	17.7%	10.1%	8.2%	3.3%
Chittenden	24.4%	11.6%	21.9%	18.4%	11.2%	8.8%	3.6%
Essex	27.9%	6.8%	16.4%	22.3%	15.8%	7.1%	3.8%
Franklin	32.4%	8.0%	27.3%	16.3%	10.3%	3.9%	1.8%
Grand Isle	28.3%	6.6%	20.4%	24.1%	8.4%	8.8%	3.4%
Lamoille	24.0%	6.6%	20.9%	20.7%	13.1%	10.9%	3.7%
Orange	42.4%	7.7%	12.9%	13.3%	10.1%	9.8%	3.9%
Orleans	30.8%	6.2%	21.8%	19.6%	12.3%	6.6%	2.7%
Rutland	40.2%	8.3%	14.1%	14.9%	11.0%	7.5%	4.1%
Washington	22.7%	8.1%	21.3%	19.4%	14.2%	9.1%	5.2%
Windham	25.5%	8.6%	19.9%	17.6%	12.8%	10.2%	5.4%
Windsor	35.2%	7.6%	15.4%	13.9%	12.2%	9.9%	5.8%
<b>VERMONT</b>	<b>29.5%</b>	<b>10.7%</b>	<b>19.3%</b>	<b>17.0%</b>	<b>11.3%</b>	<b>8.2%</b>	<b>4.0%</b>

See also [Figure 9](#)

Appendix Table 22: Percent of Male Population Receiving at Least One Opioid Analgesic Prescription By Age Group (2018)

County	17 and Younger	18 – 24	25 – 34	35 – 44	45 – 54	55 – 64	65 and Older
Addison	1.7%	3.6%	9.0%	8.6%	11.9%	14.2%	17.7%
Bennington	1.9%	6.0%	8.1%	10.5%	12.8%	16.7%	20.6%
Caledonia	1.6%	5.1%	7.3%	9.9%	14.2%	17.3%	17.9%
Chittenden	2.0%	3.5%	5.5%	8.3%	11.5%	15.1%	18.1%
Essex	1.4%	5.1%	6.3%	6.8%	11.0%	8.1%	9.2%
Franklin	2.0%	7.5%	7.5%	10.6%	13.5%	18.3%	18.9%
Grand Isle	1.4%	6.6%	7.0%	11.1%	13.9%	17.0%	21.8%
Lamoille	1.9%	4.1%	6.8%	10.4%	12.7%	18.8%	20.6%
Orange	1.1%	3.5%	5.5%	8.0%	8.7%	13.0%	13.3%
Orleans	2.4%	6.0%	7.8%	12.5%	15.4%	18.6%	18.5%
Rutland	2.2%	5.7%	8.0%	11.3%	15.4%	18.6%	20.8%
Washington	1.3%	3.9%	7.2%	9.2%	12.5%	16.3%	18.3%
Windham	1.5%	6.2%	7.7%	10.8%	15.1%	15.2%	17.8%
Windsor	1.4%	3.7%	4.6%	5.6%	9.3%	10.7%	12.0%
VERMONT	1.9%	5.0%	7.3%	10.0%	13.6%	17.2%	19.5%

See also [Figure 11](#)



Appendix Table 23: Percent of Female Population Receiving at Least One Opioid Analgesic Prescription By Age Group (2018)

County	17 and Younger	18 – 24	25 – 34	35 – 44	45 – 54	55 – 64	65 and Older
Addison	2.7%	5.4%	12.1%	12.4%	14.6%	14.2%	18.6%
Bennington	2.7%	7.2%	14.8%	16.3%	15.5%	16.5%	21.1%
Caledonia	2.4%	9.2%	12.2%	13.3%	15.5%	15.6%	17.4%
Chittenden	2.3%	4.4%	8.7%	10.4%	13.0%	16.1%	19.9%
Essex	0.9%	7.7%	10.6%	9.9%	9.9%	9.4%	10.4%
Franklin	2.7%	12.0%	12.7%	14.5%	15.7%	19.3%	21.7%
Grand Isle	2.5%	16.2%	13.0%	16.8%	18.0%	19.6%	19.9%
Lamoille	2.8%	8.8%	13.9%	13.6%	15.6%	18.3%	20.4%
Orange	1.5%	7.0%	7.9%	9.1%	11.4%	12.2%	13.3%
Orleans	3.2%	11.4%	16.3%	14.3%	18.3%	16.8%	19.9%
Rutland	3.3%	9.6%	15.3%	17.8%	18.0%	20.2%	21.7%
Washington	1.8%	8.1%	11.9%	11.1%	13.2%	15.8%	20.0%
Windham	1.3%	10.9%	14.0%	14.3%	15.5%	16.6%	18.8%
Windsor	1.2%	6.4%	6.0%	7.7%	9.2%	10.4%	13.4%
VERMONT	2.4%	7.6%	11.9%	13.2%	15.2%	17.0%	19.6%

See also [Figure 11](#)

Appendix Table 24: Ten Most Commonly Prescribed Opioid Analgesics by Generic Name (Trend)

While many of the commonly prescribed generic opioid analgesic types have fluctuated minimally over time, short-acting Hydrocodone prescribing is nearly half of what it was since 2013.

Drug Name	2013	2014	2015	2016	2017	2018
Oxycodone SA	31.3%	30.0%	29.1%	29.9%	30.8%	31.1%
Tramadol SA	--	7.7%	17.8%	19.2%	19.7%	20.0%
Hydrocodone SA	36.6%	31.4%	24.4%	21.6%	19.5%	18.4%
Hydromorphone SA	6.4%	6.1%	5.8%	5.9%	5.9%	5.9%
Morphine LA	5.2%	5.1%	5.0%	5.3%	5.3%	5.4%
Morphine SA	2.9%	3.0%	2.9%	3.0%	3.7%	4.3%
Fentanyl LA	4.1%	4.1%	3.8%	3.8%	3.7%	3.9%
Methadone	4.3%	3.9%	3.5%	3.5%	3.7%	3.6%
Oxycodone LA	3.6%	3.5%	3.3%	3.2%	3.3%	3.3%
Codeine	4.6%	3.9%	3.4%	3.2%	3.1%	3.0%
Oxymorphone LA	0.2%	--	--	--	--	--

-- indicates no individuals or prescriptions in a particular category.

\*Note - Tramadol was not considered a Schedule IV controlled substance and was not collected in VPMS until August 14th, 2014

See also [Figure 13](#)

Appendix Table 25: Total Opioid Analgesic MME Per 100 Residents (Trend)

County	2013	2014	2015	2016	2017	2018
Addison	65,116	62,924	63,479	63,029	53,039	42,225
Bennington	63,021	67,476	74,427	67,689	60,705	53,722
Caledonia	66,590	70,941	68,635	58,939	53,131	46,107
Chittenden	63,146	63,674	65,061	58,421	53,376	45,486
Essex	55,608	60,390	55,397	52,624	41,704	34,167
Franklin	98,952	103,073	106,564	100,633	93,992	80,905
Grand Isle	108,620	95,707	100,197	85,286	85,829	78,288
Lamoille	76,618	80,076	80,067	63,581	59,707	51,652
Orange	53,510	56,418	55,088	42,140	38,905	33,952
Orleans	72,788	78,060	87,987	73,050	71,702	65,270
Rutland	68,200	74,191	80,378	76,070	66,861	56,180
Washington	69,753	66,991	69,196	57,294	50,046	43,854
Windham	77,860	79,889	77,823	70,109	59,595	53,185
Windsor	56,805	57,341	61,629	54,137	44,523	37,775
<b>VERMONT</b>	<b>71,521</b>	<b>73,476</b>	<b>77,090</b>	<b>68,915</b>	<b>61,300</b>	<b>52,535</b>

See also [Figure 14](#)

Appendix Table 26: Average Daily MME for Opioid Analgesic Prescriptions (Trend)

County	2013	2014	2015	2016	2017	2018
Addison	70.3	64.5	58.8	63.7	58.8	54.7
Bennington	59.5	55.8	52.1	51.6	52.3	54.1
Caledonia	59.8	61.3	58.2	57.0	55.4	54.5
Chittenden	78.0	74.9	68.9	68.5	65.4	62.5
Essex	61.8	61.5	51.5	62.5	52.6	50.0
Franklin	75.1	72.3	66.5	69.7	70.2	67.8
Grand Isle	79.1	72.5	66.0	61.0	64.0	69.1
Lamoille	62.1	61.9	58.0	56.3	55.3	52.6
Orange	66.3	61.4	54.5	50.4	49.5	50.5
Orleans	61.9	60.9	58.0	55.3	56.9	54.9
Rutland	68.6	65.8	61.5	62.8	61.5	61.1
Washington	64.5	59.7	56.1	54.0	50.6	52.6
Windham	69.4	66.8	58.9	57.3	55.5	56.0
Windsor	69.3	69.4	63.7	62.3	62.4	63.2
<b>VERMONT</b>	<b>69.3</b>	<b>66.8</b>	<b>61.6</b>	<b>61.3</b>	<b>59.5</b>	<b>58.5</b>

See also [Figure 16](#)

Appendix Table 27: Average Daily MME for Male Population by Age Group (2018)

County	17 and Younger	18 – 24	25 – 34	35 – 44	45 – 54	55 – 64	65 and Older
Addison	29.5	30.2	71.6	76.6	48.4	72.0	53.5
Bennington	22.8	27.1	50.4	38.1	72.9	68.5	54.2
Caledonia	22.9	32.6	31.7	55.6	60.6	70.4	55.8
Chittenden	21.4	36.1	72.2	86.3	74.7	75.1	58.6
Essex	26.6	32.1	69.3	68.9	40.7	37.4	60.7
Franklin	24.8	42.3	81.2	110.8	83.0	75.4	55.5
Grand Isle	17.8	31.8	28.2	136.6	81.1	80.3	38.7
Lamoille	22.8	29.7	34.4	72.0	63.2	52.9	53.6
Orange	23.2	28.1	47.6	54.1	77.3	50.4	43.4
Orleans	23.0	30.7	51.9	59.8	62.9	65.5	69.6
Rutland	23.1	29.4	50.9	73.9	66.6	77.4	64.8
Washington	23.3	35.1	43.9	112.9	68.7	52.0	51.3
Windham	22.9	26.9	36.5	62.5	77.3	59.3	70.4
Windsor	26.2	35.5	67.2	85.9	80.0	74.1	69.5
VERMONT	23.7	33.6	59.2	80.5	70.6	67.8	57.6

See also [Figure 18](#)

Appendix Table 28: Average Daily MME for Female Population by Age Group (2018)

County	17 and Younger	18 – 24	25 – 34	35 – 44	45 – 54	55 – 64	65 and Older
Addison	29.3	34.1	42.6	58.4	43.8	53.1	49.2
Bennington	32.2	36.5	34.9	49.9	56.3	51.9	49.0
Caledonia	25.4	30.8	28.5	37.2	49.3	58.8	50.8
Chittenden	24.1	29.5	41.6	64.3	64.0	58.8	55.7
Essex	26.9	32.9	27.7	29.9	42.3	51.7	62.0
Franklin	22.6	36.5	53.5	56.4	80.4	62.1	46.1
Grand Isle	21.0	33.0	40.1	68.2	95.7	49.4	64.1
Lamoille	22.4	24.3	35.1	45.7	54.9	66.2	37.7
Orange	24.5	37.4	40.2	55.1	41.3	46.0	53.8
Orleans	19.8	30.7	30.5	35.8	46.7	46.1	52.6
Rutland	22.5	29.2	58.5	55.2	86.2	51.5	46.4
Washington	24.6	28.1	42.6	47.5	51.4	49.2	43.8
Windham	24.5	30.1	37.1	51.1	49.4	57.5	44.2
Windsor	25.1	30.3	50.3	60.8	59.8	57.8	49.3
<b>VERMONT</b>	<b>24.6</b>	<b>31.2</b>	<b>43.3</b>	<b>54.6</b>	<b>62.6</b>	<b>55.6</b>	<b>49.3</b>

See also [Figure 18](#)

Appendix Table 29: Percentage of Opioid Analgesic Prescriptions in MME Category (2018)

County	Less than 50 MME	50 – 90 MME	Greater than 90 MME
Addison	69.7%	18.0%	12.4%
Bennington	71.2%	16.8%	12.0%
Caledonia	69.9%	17.4%	12.7%
Chittenden	66.5%	17.6%	15.9%
Essex	69.0%	19.8%	11.2%
Franklin	57.8%	23.4%	18.8%
Grand Isle	57.8%	23.4%	18.8%
Lamoille	70.5%	18.0%	11.5%
Orange	73.8%	16.2%	10.1%
Orleans	68.5%	17.8%	13.7%
Rutland	69.3%	16.5%	14.2%
Washington	71.8%	15.5%	12.8%
Windham	68.7%	18.6%	12.7%
Windsor	66.0%	17.2%	16.8%
<b>VERMONT</b>	<b>67.8%</b>	<b>18.0%</b>	<b>14.2%</b>

See also [Figure 19](#)

Appendix Table 30: Average Days' Supply for Opioid Analgesic Prescriptions (Trend)

All Vermont counties are similar to the statewide trend ([Fig. 22](#)), with increases in the average days' supply between 2013 and 2018.

County	2013	2014	2015	2016	2017	2018
Addison	14	15	16	16	17	17
Bennington	15	15	17	18	18	18
Caledonia	16	17	17	17	18	18
Chittenden	15	16	17	17	17	18
Essex	19	18	20	19	20	20
Franklin	16	16	17	17	17	17
Grand Isle	15	17	18	18	17	18
Lamoille	16	16	17	17	18	18
Orange	16	18	19	19	19	19
Orleans	16	17	18	19	19	19
Rutland	13	15	16	16	16	17
Washington	15	16	18	18	18	18
Windham	15	16	17	17	18	18
Windsor	15	16	17	18	18	19
<b>VERMONT</b>	<b>15</b>	<b>16</b>	<b>17</b>	<b>17</b>	<b>17</b>	<b>18</b>

See also [Figure 22](#)



Appendix Table 31: Average Days' Supply by MME Category (2018)

County	Less than 50 MME	50 – 90 MME	Greater than 90 MME
Addison	16	18	20
Bennington	18	18	19
Caledonia	18	19	19
Chittenden	18	18	19
Essex	20	21	18
Franklin	18	15	15
Grand Isle	18	17	17
Lamoille	18	18	20
Orange	20	20	19
Orleans	19	20	21
Rutland	17	16	17
Washington	18	18	18
Windham	17	19	19
Windsor	18	20	18
<b>VERMONT</b>	<b>18</b>	<b>18</b>	<b>18</b>

See also [Figure 24](#)

Appendix Table 32: Percent of Male Population Receiving at Least One MAT Prescription By Age Group (2018)

County	17 and Younger	18 – 24	25 – 34	35 – 44	45 – 54	55 – 64	65 and Older
Addison	--	0.3%	3.8%	3.2%	1.0%	0.2%	0.2%
Bennington	--	1.5%	8.3%	4.7%	1.3%	0.6%	0.2%
Caledonia	--	0.2%	2.1%	2.5%	1.0%	0.3%	0.1%
Chittenden	--	0.2%	2.4%	2.9%	1.3%	0.5%	0.2%
Essex	--	--	1.9%	1.4%	0.2%	--	--
Franklin	--	1.3%	7.6%	5.9%	1.6%	0.3%	0.1%
Grand Isle	--	0.4%	6.7%	3.9%	2.3%	0.3%	--
Lamoille	--	0.7%	6.4%	3.8%	1.2%	0.5%	0.1%
Orange	--	0.5%	3.4%	1.7%	0.8%	0.5%	0.1%
Orleans	--	0.1%	1.5%	2.1%	0.8%	0.3%	0.1%
Rutland	--	1.6%	8.4%	6.8%	2.1%	0.6%	0.2%
Washington	--	0.3%	4.0%	3.2%	1.1%	0.5%	0.1%
Windham	--	0.3%	2.7%	3.2%	1.7%	0.9%	0.2%
Windsor	--	1.0%	4.5%	3.3%	1.5%	0.6%	0.2%
<b>VERMONT</b>	--	<b>0.5%</b>	<b>4.1%</b>	<b>3.6%</b>	<b>1.4%</b>	<b>0.5%</b>	<b>0.1%</b>

-- indicates no individuals or prescriptions in a particular category.

See also [Figure 26](#)

Appendix Table 33: Percent of Female Population Receiving at Least One MAT Prescription By Age Group (2018)

County	17 and Younger	18 – 24	25 – 34	35 – 44	45 – 54	55 – 64	65 and Older
Addison	--	1.3%	8.2%	3.2%	0.8%	0.3%	0.0%
Bennington	--	1.5%	7.7%	4.7%	1.4%	0.3%	0.0%
Caledonia	--	0.7%	3.1%	2.1%	0.4%	0.3%	0.1%
Chittenden	--	0.2%	2.6%	2.4%	0.8%	0.3%	0.0%
Essex	--	0.6%	2.1%	1.0%	--	0.2%	--
Franklin	--	2.2%	8.1%	4.3%	1.2%	0.5%	0.1%
Grand Isle	--	0.5%	8.0%	3.0%	1.0%	1.0%	0.1%
Lamoille	--	0.9%	6.7%	3.5%	0.7%	0.3%	0.0%
Orange	--	1.1%	3.7%	1.5%	0.7%	0.2%	0.1%
Orleans	--	0.4%	2.8%	2.1%	0.6%	0.1%	--
Rutland	--	1.5%	9.0%	5.1%	1.6%	0.4%	0.1%
Washington	--	0.9%	3.5%	2.2%	0.8%	0.3%	0.0%
Windham	--	0.9%	2.7%	2.4%	1.1%	0.3%	0.1%
Windsor	--	1.6%	3.9%	2.9%	1.0%	0.3%	0.0%
<b>VERMONT</b>	--	<b>0.8%</b>	<b>4.3%</b>	<b>2.8%</b>	<b>0.9%</b>	<b>0.3%</b>	<b>0.1%</b>

-- indicates no individuals or prescriptions in a particular category.

See also [Figure 26](#)

Appendix Table 34: Percent of Male Population Receiving at Least One Stimulant Prescription By Age Group (2018)

County	17 and Younger	18 – 24	25 – 34	35 – 44	45 – 54	55 – 64	65 and Older
Addison	8.6%	3.9%	4.0%	3.0%	1.6%	0.9%	0.6%
Bennington	11.5%	7.3%	4.9%	4.9%	2.7%	1.5%	0.9%
Caledonia	8.6%	5.2%	5.3%	4.3%	2.1%	1.5%	0.9%
Chittenden	7.1%	3.8%	5.4%	4.7%	2.9%	1.8%	0.9%
Essex	5.0%	3.0%	4.5%	3.7%	1.8%	1.1%	0.7%
Franklin	6.4%	4.1%	3.5%	2.7%	1.2%	0.9%	0.7%
Grand Isle	7.8%	4.7%	3.0%	5.9%	2.1%	1.2%	1.1%
Lamoille	5.9%	3.8%	4.2%	4.6%	2.4%	1.7%	0.8%
Orange	7.7%	4.2%	4.1%	3.7%	2.1%	1.3%	1.0%
Orleans	7.2%	4.5%	5.9%	6.0%	3.3%	1.4%	0.5%
Rutland	9.2%	4.2%	3.8%	3.2%	2.0%	0.9%	0.5%
Washington	7.4%	4.2%	7.2%	5.8%	3.6%	1.8%	1.2%
Windham	11.3%	8.9%	8.3%	6.9%	4.8%	2.0%	1.1%
Windsor	5.8%	4.6%	3.1%	2.1%	1.8%	1.1%	0.7%
VERMONT	7.9%	5.7%	5.2%	4.4%	2.7%	1.5%	0.9%

See also [Figure 28](#)

Appendix Table 35: Percent of Female Population Receiving at Least One Stimulant Prescription By Age Group (2018)

County	17 and Younger	18 – 24	25 – 34	35 – 44	45 – 54	55 – 64	65 and Older
Addison	5.1%	3.7%	5.3%	4.4%	3.1%	1.8%	1.0%
Bennington	5.9%	5.5%	7.6%	9.7%	5.0%	2.5%	0.9%
Caledonia	4.2%	2.7%	6.6%	5.7%	3.6%	2.4%	0.9%
Chittenden	3.4%	3.8%	6.7%	6.1%	4.1%	3.0%	1.1%
Essex	1.5%	5.0%	4.3%	5.4%	3.0%	0.3%	0.1%
Franklin	2.6%	3.3%	4.8%	3.7%	2.6%	1.1%	0.3%
Grand Isle	4.2%	5.8%	8.5%	6.1%	2.2%	2.1%	0.8%
Lamoille	2.4%	4.2%	7.8%	6.4%	4.5%	2.8%	0.8%
Orange	3.9%	3.7%	5.2%	3.4%	2.6%	1.6%	0.6%
Orleans	3.7%	4.8%	9.7%	7.0%	3.4%	1.6%	0.6%
Rutland	4.8%	3.5%	5.5%	5.9%	3.7%	2.2%	0.7%
Washington	3.2%	5.3%	8.5%	7.3%	4.8%	3.0%	1.2%
Windham	5.4%	9.5%	11.9%	9.7%	6.9%	4.2%	1.9%
Windsor	2.8%	4.2%	4.5%	3.6%	2.7%	1.6%	0.6%
<b>VERMONT</b>	<b>3.8%</b>	<b>5.6%</b>	<b>7.0%</b>	<b>6.1%</b>	<b>4.1%</b>	<b>2.5%</b>	<b>1.0%</b>

See also [Figure 28](#)

Appendix Table 36: Percent of Male Population Receiving at Least One Benzodiazepine Prescription By Age Group (2018)

County	17 and Younger	18 – 24	25 – 34	35 – 44	45 – 54	55 – 64	65 And Older
Addison	0.9%	1.3%	5.2%	5.5%	6.0%	7.0%	10.3%
Bennington	1.2%	3.4%	4.4%	6.6%	8.5%	9.6%	12.6%
Caledonia	1.0%	2.5%	4.9%	6.3%	7.6%	7.9%	10.8%
Chittenden	1.4%	1.9%	4.9%	7.8%	8.5%	10.2%	12.7%
Essex	0.5%	1.0%	4.9%	4.1%	4.1%	6.4%	5.7%
Franklin	1.0%	3.0%	4.6%	5.8%	7.0%	8.1%	10.8%
Grand Isle	0.9%	3.9%	4.5%	4.1%	7.4%	6.1%	12.0%
Lamoille	3.0%	4.4%	5.8%	7.0%	8.1%	10.3%	11.9%
Orange	0.6%	1.8%	7.4%	8.3%	5.9%	7.3%	8.7%
Orleans	0.9%	2.6%	5.0%	7.3%	7.9%	10.4%	12.5%
Rutland	1.5%	3.8%	5.1%	7.0%	8.7%	9.2%	11.1%
Washington	0.9%	2.5%	6.1%	7.8%	8.7%	10.3%	11.2%
Windham	1.1%	3.3%	6.0%	7.6%	8.4%	10.1%	10.4%
Windsor	0.5%	2.1%	3.4%	4.0%	4.9%	6.4%	7.8%
<b>VERMONT</b>	<b>1.2%</b>	<b>2.7%</b>	<b>5.4%</b>	<b>7.1%</b>	<b>8.0%</b>	<b>9.4%</b>	<b>11.7%</b>

See also [Figure 30](#)

Appendix Table 37: Percent of Female Population Receiving at Least One Benzodiazepine Prescription By Age Group (2018)

County	17 and Younger	18 – 24	25 – 34	35 – 44	45 – 54	55 – 64	65 and Older
Addison	1.0%	2.8%	9.6%	10.7%	12.9%	13.9%	15.5%
Bennington	2.0%	4.3%	11.3%	16.2%	16.5%	16.8%	17.8%
Caledonia	1.3%	3.0%	7.7%	11.0%	11.5%	12.3%	12.8%
Chittenden	1.7%	3.2%	9.7%	12.9%	15.3%	17.3%	18.6%
Essex	0.4%	3.3%	3.9%	6.4%	6.9%	7.5%	8.7%
Franklin	1.2%	4.0%	7.6%	10.0%	12.5%	14.5%	15.9%
Grand Isle	0.8%	3.1%	9.8%	10.9%	12.5%	16.1%	15.1%
Lamoille	3.4%	6.5%	9.4%	12.1%	15.5%	16.1%	15.6%
Orange	1.0%	3.4%	8.5%	10.5%	9.7%	11.6%	11.3%
Orleans	1.0%	4.5%	10.3%	14.8%	17.1%	18.6%	16.5%
Rutland	2.0%	6.4%	9.4%	15.1%	15.9%	16.2%	16.5%
Washington	1.1%	5.0%	10.1%	14.4%	15.5%	16.2%	17.8%
Windham	1.2%	6.4%	13.5%	14.1%	16.3%	16.0%	18.0%
Windsor	1.0%	3.7%	6.1%	7.7%	10.1%	9.9%	11.9%
VERMONT	1.5%	4.8%	9.8%	12.9%	14.7%	15.7%	16.5%

See also [Figure 30](#)